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Agroecology and Wellbeing
**A journey into unheard ecological imaginaries and gendered
understandings of agroecological practices in Sicily, Italy**

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Disclaimer:

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List of Acronyms

ISS	Institute of Social Studies
RP	Research Paper
FPE	Feminist Political Ecology
PE	Political Ecology
MA	Multifunctional Agriculture
WWOOF	Worldwide Opportunities on Organic Farms
EU	European Union
PSR	Piano di Sviluppo Rurale (Rural Development Plan)

Abstract

Italy is experiencing an ecological transition of its agricultural system, giving women's leadership and contributions in sustainable agricultural projects an opportunity to be recognized, while opening new paths to evolving alternative futures in agriculture. Based on a research journey in two multifunctional agroecological farms in Sicily, this research paper explores as yet unheard stories and knowledges on agroecology as a resilient food system, amidst the current environmental, economic and health crisis. Nurtured from feminist political ecology theories, political ecology studies and ground-up theory from the field, this research introduces a framework to understand agroecological practices as integrated socio-nature ecosystems that build resilience, health, and social value, while generating gendered and political outcomes for social reproduction, knowledge production and social fabric weaving. Similarly, this paper sheds light on how this process takes place on the ground, founded on the values of wellbeing, care, *commoning* and rootedness.

L'Italia si trova attualmente nel pieno di una transizione ecologica dei sistemi agricoli, che permette alle donne di ricoprire un ruolo chiave nello sviluppo dell'agricoltura biologica multifunzionale il quale merita di essere riconosciuto. Ispirato da due esempi di aziende agricole biologiche nella regione Sicilia, questo redatto accademico ha lo scopo di ascoltare e dare voce a storie e conoscenze locali sull'agroecologia, intesa come un sistema alimentare resiliente a fronte dell'attuale crisi ambientale, economica e sanitaria. Filtrato dal punto di vista dell'ecologia politica femminista, il fine ultimo di questa ricerca è quello di invocare una comprensione più olistica delle pratiche agroecologiche. Quest'ultime sono da intendere come un insieme di ecosistemi sociali e naturali integrati con l'obiettivo di indurre resilienza, salute e valore sociale. L'agroecologia, che è basata sui valori del benessere, della cura, della condivisione e del territorio, genera allo stesso tempo risultati politici e di genere per la riproduzione sociale, la produzione di conoscenza ed il tessuto sociale.

Why the Research? Relevance to Development Studies

The ecological transition of the agriculture system is located at the centre of environmental crisis debates and the seek for alternative ways of living, both in the Global North and Global South. In Italy, this process has intertwined with an innovative gender perspective as the statistics continue to reveal an increase in women-led agricultural projects across the territory, despite the economic impact of Covid-19 pandemic. However, there is little precise data available about women-led multifunctional agroecological projects, and women's stories continue to be outside mainstream agricultural discourses. This gender bias hinders the potential of these projects to respond to the current ecological, economic and health crisis through a robust understanding of how women-led initiatives are working in the field. Drawing from Feminist Political Ecology literature, this research paper aims to contribute to the revaluation of "heterogenous gendered knowledges and practices of sustainability" (Rocheleau & Nirman 2015: 808) through an understanding of diverse ecological imaginaries that build resilience, reciprocity, and relationality. Following a methodology that refuses mainstream forms of knowledge production, this study builds from marginalised narratives and shared experiences. This research paper intends to bridge academic domain, local political action, and practical change in the field. Recognizing women's unheard experiences and contributions to agroecology as a transformative practice is relevant for development studies, not only because these build up ground-up theory that informs literature. But most importantly, because these learnings, knowledges and stories have the

potential to inspire other women around the globe who are at the forefront of transitions towards sustainable agri-food systems.

Keywords

Agroecology, multifunctional agriculture, resilience, health, social value, commons, caring, wellbeing, rootedness, social reproduction, environmental reproduction, socationature ecosystems, feminist political ecology, women, Sicily

Chapter 1 | Introduction

“In the animic ontology, beings do not simply occupy the world, they inhabit it, and in so doing – in threading their own paths through the meshwork – they contribute to its ever-evolving weave”.

Tim Ingold (2011: 71)

1.1 What is this Research Paper about?

Looking at the window of the 10th floor of the San Paolo Palace Hotel in Palermo, Sicily, Italy, where I was forcedly locked down in quarantine for 18 days by the Sicilian government, I realized I was embodying the impact of the Covid-19 pandemic. Never had I symptoms and never was I offered any other alternative. From the day I arrived in Sicily, I was forced to stay in a room in poor conditions, without ventilation at 42°C and receiving low-quality food for an undefined period of time, which impacted directly my physical health but especially my mental health. This was founded on the principle of ‘following the island protocol’, which first aim was to protect Sicilian economic and social activity. While being isolated in the Covid Hotel room, I reflected on how modernity discourses, that universalize the concept of progress from a Western perspective, continue to destroy and deunify humanity. The idea of progress from mainstream economic perspectives not only overlooks the deterioration of the environment, despite being our main source of life, but it equally leaves the wellbeing of humans neglected, resulting in serious implications for our physical and mental health. The proof is in the pudding: as economy operates under the principles of accumulation and commodification, we destroy biodiverse ecosystems and disrupt environmental balance (Valladares 2020), which has resulted for instance in the recent outbreak of the Covid-19 pandemic and the thousands of land hectares burned in Sicily during the summer of 2021. Both events I witnessed and embodied during my fieldwork. These aftermaths will not be one-of-a-kind in the following decades as we understand the importance of transitioning to an ecological and sustainable economy not only for the mitigation of climate change impacts, but also for global health. Therefore, more than ever, resilient initiatives to the environmental, economic and health crisis deserve to be heard and recognized. After leaving the Covid Hotel, I continued to feel its impact on my wellbeing ([Appendix 2](#)). Thus, I felt that my time in the agroecological farm in Alia, Sicily, where I did my research fieldwork was meaningful not only for my Master’ studies but also for my own wellbeing.

The undergoing ecological transition of the agricultural system in Italy has proved agroecology to be a resilient food system in the wake of the Covid-19 pandemic. That is, while the health emergency has been developing a “deep, global and enduring politico-economic crisis that involves a rapid disarticulation of the production, processing, distribution and consumption of food”, agroecology has proven to be agile and capable to face its effects, becoming then “an indispensable [ingredient] for recovery” (Van der Ploeg 2020a: 944). According to the statistics, women have been significantly involved in this process as women-led agricultural multifunctional entrepreneurship continue to grow, particularly in Sicily. However, few or none is known about the intersection of agroecology and gender in these particular cases, which roughly reveals a dominant heterogenous male narrative on sustainable food systems (Rocheleau & Nirman 2015: 47). Rural women stories have not been heard, instead they seem invisible considering that our knowledge about women con-

tributions in the transition towards sustainable agriculture is poor (Seuneke & Bock 2015: 47). The lack of data about women-led multifunctional agroecological projects hinders the understanding of the potential of these projects to confront the current environmental, economic and health and on how these initiatives are functioning on the field. Here I situate my research interest, in the silences, what is not being said.

Emerging from my curiosity for the intersection of gender and environmental issues, this research paper (RP) positions agroecology as a transformative practice intertwined with resilience, health and social value that produces gendered and political outcomes. This paper aims to present learnings from local experiences in two multifunctional agroecological projects in Sicily, opening to local ecological imaginaries and plurality of knowledges. The objective is introducing ground-up theory from a Feminist Political Ecology (FPE) perspective, seeking to recognize community local knowledges and practices, instead of using field work to prove a theory which is usual in mainstream methodologies. This research intends to listen to local unheard stories and knowledges grounded on every-day practices of agroecology, that is, daily community experiences that build local ecological imaginaries. Departing from these local understandings, I aim to explore their resilience processes amidst the current ecological, economic and health crisis, the latter exacerbated by the Covid-19 pandemic outbreak.

1.2 Agroecology and Wellbeing, a FPE approach

Relying on the primacy of economic growth as an indisputable driver for development, both in developing and developed countries, not only disregards the biophysical limits of the global ecosystem, but also overlooks the socio, cultural and environmental aspects of development. Movements such as *degrowth* have challenged the assumption that economic growth necessarily improves living conditions and wellbeing (Bauhardt 2014: 60). Therefore, it has been claimed that global “[economic] analysis must in greater depth consider the full range of ecological and social aspects of well-being and quality of life” (Ibid. 2014: 60). In fact, the high indebtedness underlying modern capitalist economies and pushing for ongoing economic growth has resulted in the phenomenon of financialization, which continues to increase tremendously economic and ecological vulnerability in the food system (Stiglitz 2010; Beckert 2015; Clapp & Isakson 2018: 438 in Van der Ploeg 2020a: 954). Hence, it comes as no surprise that “the tragedy of the Covid-19 pandemic [has turned] into an overall politico-economic crisis that threatens to bring even more victims than the biomedical pandemic” (Van der Ploeg 2020: 955).

Amidst the current environmental and economic crisis, agriculture locates at the core of the discussion as it is estimated that “more than half of the earth’s land surface is intensively used for agricultural purposes” (IAASTD 2009: 8). This does not only mean that agriculture provides livelihood for at least 40% of the world’s population, but also that in the last 70 years about one third of the soil worldwide has been deeply distorted from its natural ecosystem due to severe soil degradation (Oldeman *et al.* 1990 in IAASTD 2009: 6). The latter has been a result of harmful agricultural practices driven by the ongoing growth of production and consumption. In addition, it is important to notice the role of small farms, as they occupy more than 60% of the arable land globally and from which nearly 90% have a size of less than two hectares of land (Ibid.: 2- 8). Indeed, peasant agriculture provides at least 70% of all food consumed globally while only 20% of global food production crosses borders abroad (Van der Ploeg 2020b: 12). In the wake of the Covid-19 pandemic, peasant agriculture features such as self-provisioning and market locality, that

are considered weak and backward under the ‘modernity’ framework, have re-emerged as relevant and embodying resilience (Van der Ploeg 2020a: 965)

Therefore, in the process of rethinking future agricultural systems, agroecology has shown to be of utmost importance in building blocks for resilient alternatives to the current economic, environmental and health crisis (Ibid. 966). Multifunctional agriculture appears as a complement for agroecology, promoting ethical work practices that care for the environment, recognize, and engage with the local cultural and social activities of the community, and protect the commons. These concepts recall Feminist Political Ecology perspective on ‘care’ as looking after for the environment, the community, and future generations (Bauhardt & Harcourt 2019: 3- 6). Following the term multifunctionality, it refers to four main functions in agriculture: 1) green function as promotion and protection of the natural capital (soil regeneration, biodiversity and landscape); 2) blue function as water resource management and flood control; 3) yellow function as vitality of rural areas, historical and cultural heritage, including education, agritourism and integration with local actors and community; and 4) white function referring to food production (food security and safety, health standards and food quality) (Van Huylenbroeck *et al.* 2007 in Aguglia *et al.* 2009: 2). The Organisation for Economic Co-operation and Development (OECD) defines agricultural multifunctionality in terms of the jointly produced public goods resulting from the commodity and non-commodity outputs of these practices (Ibid.). In the Italian system, ecological farms have proved successful in the process of farm diversification as they simultaneously engage key features that concern equally agricultural, ethical, and social elements by integrating farmers’ communities that insist on their territory. (Gargano *et al.* 2021: 1)

In fact, this type of agriculture, one that balances environmental, societal, and economic impacts, promotes activities that have proven to contribute to local rural development (Cersosimo & Alfano 2009 in Bartolino 2016: 42), distancing from the economic growth imperative. Gargano *et al.* insist that the Italian “agroecological improvement to farm diversification is given by a better use of local resources which emphasizes human capital enhancement and community empowerment through social learning and participatory methods, good linkages between farmers and external agencies, higher access to markets and income generating activities” (2021: 20). These elements of resilience, relationality and reciprocity that strengthen social fabric have proved to be interlinked with women contributions as essential driving forces in the development of multifunctional ecological family farms (Seuneke & Bock 2015: 47). Thus, it does not come as surprise that multifunctional agroecology intersects with gender analysis, as the former recognizes other ways of living and locates social inclusion and environmental protection at the core. At this point, it is relevant to acknowledge that women are not all the same, women exist in a variety of categories (age, class, self-identities, civil status, ableness, among others), which diversities and intersections must be included when analysing women-led agriculture projects.

This study aims to examine the phenomenon of multifunctional agroecological projects led by women in Sicily, Italy, from a Feminist Political Ecology (FPE) understanding and framework. FPE is a movement, a way of thinking and practice that intersects ecological, economic, political and feminist matters (Bauhardt 2014: 61). Inspired by ecofeminism, this body of literature is concerned about the women-nature relationship, referring to historical wounds of gender exclusion and oppression, as both women’s labour and planetary resources exploitation are marginalized within the current neoliberal economic dynamics of growth and accumulation. However, FPE goes beyond to acknowledge that women’s attributed role within social reproduction is not limited to women’s bodies and seeks for an

understanding of gender roles fluidity beyond the heteronormative construction of family and ‘motherhood’ structures (Bauhardt & Harcourt 2019: 32). Thus, calling for deeper analysis on the principles of care, wellbeing, and relationality.

Feminist Political Ecology lens allows us to closely observe politics and gendered power relations, “making an explicit commitment towards tackling gender disadvantage and inequality” (Elmhirst 2015: 519). The FPE theoretical framework aims to widen the transformative potential of feminism regarding gender hierarchies, by usefully observing how knowledges and practices emerging from climate change resilience can bring positive gendered outcomes (Rocheleau *et al.* 1996; Arora-Jonsson 2011; Bee *et al.* 2013; Tschakert 2013 in Elmhirst 2015: 522). From this point of departure, this research aims to analyse how local understandings of agroecological practices build socionature relations and contain women unheard knowledges that unveil alternative ways of living, which are vital for the transition process towards sustainable agri-food systems.

1.3 Research Journey

1.3.1 Research Questions

The main research question I establish is: *What are women’s unheard stories and knowledges on agroecological practices in Sicily and to what extent are they countering the environmental, economic and health crisis?*

To explore in depth this question, I will also cover the following sub- questions:

- What is the understanding that the Sicilian farms studied in this work have of agroecology and how do they practice it?
- To what extent has the Covid-19 pandemic raised awareness about health in agroecological and revealed opportunities for financial and environmental resilience?
- How do the practices of caring and *commoning* in agroecology inform – or not- social reproduction and create - or not- social value?
- What is the role of women in leading alternatives to mainstream agri-food systems and why is it important to recognize it amid the ecological agricultural transition?

1.3.2 Research Objectives

First, this research aims to listen to stories and knowledges of specific multifunctional agroecological projects in Sicily and explore their resilience experience amidst the ecological, economic and health crisis amidst the Covid-19 pandemic. Second, I intend to acknowledge community local stories and practices, by introducing a framework built upon ground-up theory that advances in further understandings of the relationship between agroecology, resilience, health, and social value, while contributing to debates, theoretical frameworks, and literature of FPE. Thirdly, linked to the latter, this research paper seeks to recognize women’s leadership and contributions in the ecological transition of the agricultural system in Italy and how their every-day agroecological practices produce positive gendered and political outcomes beyond food production. Finally, by becoming a subject of research and following a methodology based on the principles of traveling and opening to plurality of knowledges, I seek to refuse mainstream forms of knowledge production and motivate to rethink ways of conducting more ethic and caring academic research.

As a final point, not to be included as an objective but important to mention as a personal expectation, I hope that the learnings offered by these communities’ experiences

and stories serve to encourage and draw the path towards sustainable and community-built agriculture in other southern locations. Particularly, for those projects, collectives, and rural associations where women are taking the lead and initiative in the transition to ecological agri-food systems.

1.3.3 Methodology and positionality

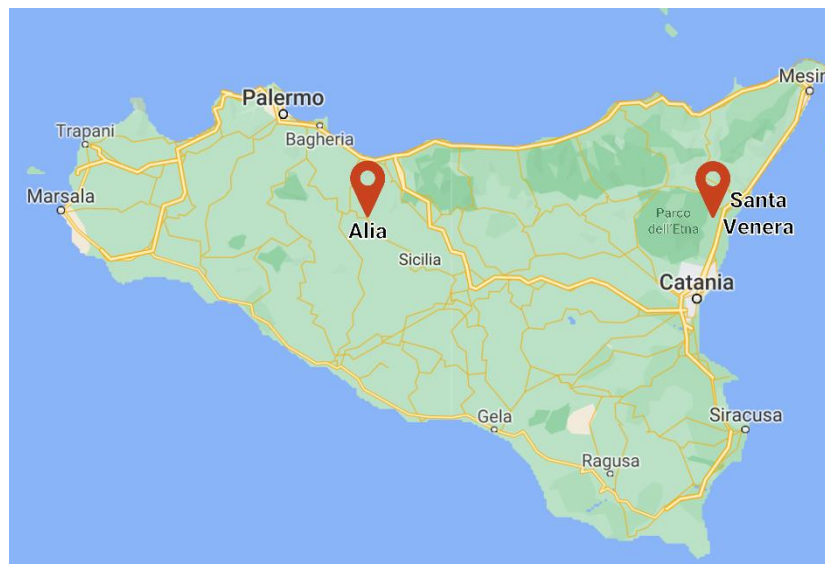
First, I position my research in refusal towards mainstream forms of knowledge production in the academy, that generally tend to appropriate knowledge by pushing to prove theory with field cases (Tuck & Yang 2018: 4- 5; 14). Research often overlooks the subjects of study and their agency, since many research methodologies have been historically designed under a hegemonic discourse that defines who holds knowledge and who produces it. The latter refers to those who fit in the academic arena, often determined by their education, language, location, network and interests. Rather, I believe in the importance of opening to plurality of knowledges, created and hold by the every-day experiences and practices of those living in the field (Alvarez, Dagnino, and Escobar 1998 in Sundberg 2003: 188).

As a Colombian woman, I come from a context with multiple and conflictive ontologies, thus I do not want to put myself in a researcher position proving a theory, but rather in a process of learning through transformative reflexivity, where reflection on understandings and meanings is at the core of the collective data generation (Kindon et al. 2007). This means that my intention was not learning from these women's and farmer's experiences to claim their stories as intellectual property (Tuck & Yang 2018: 2), but rather to challenge epistemic violence by sensing and opening to others' narratives and mutually learn from a shared experience. By becoming involved and engaging with the members of the multifunctional agroecological farms (becoming in relation to them), I became submerged in their daily work and practices hoping to travel through their own local ontologies, while listening and learning from their knowledges and stories. Although my research places special attention to women's unheard stories, my methodology engages holistically with all the participants of the farm community, not limited to the leaders, as I myself became a member and part of it as a volunteer. Aiming for an embodied learning method where reception with body and mind are the research departure point (Haraway 1991, 1997 in Sundberg 2003: 182) and considering my positionality as a global south woman whose mother tongue is not Italian, I identify myself as traveller. The researcher as traveller is not only an observer, but a subject of this process; throughout this course the researcher will question their own positionality, values and self-understanding of reality in a deep reflection process (Kvale & Brinkmann 2009: 48- 49).

In practical terms, I first became member of the volunteer program (WWOOFers) of the Worldwide Opportunities on Organic Farms (WWOOF) association with the intention to travel as volunteer to agroecological farms in Sicily. I selected farms where there were women leaders and directly reached out to them. When offering my support to the farms, I made clear my intention to conduct academic research on their stories and practices and explicitly asked for their consent. This is how I reached out to the farm at Alia (Palermo Province, Sicily), where I spent ten days working as a volunteer. From this farm I take out most of the findings of this research paper. Through the same platform I reached out to the second farm at Santa Venera (Catania Province, Sicily) located over the Etna Volcano foothill, which I visited for three days and informs a section of this research as well (Map 1). Throughout the thirteen days of fieldwork research, I kept a diary where I wrote observations, learnings and stories heard on a daily basis, guiding my writing around but not limited to the concepts of sustainable practices, resilience, care and community. In average, I

dedicated between one and two hours of writing every day. Building from these local stories, actions, and my engagement with them, I used ground-up theory to come up with a framework that allows a deeper understanding of diverse ecological imaginaries and gendered understandings of agroecological practices. Throughout this compilation of stories, I will use the original names when referring to the farm in Alia, but that will not be the case for the farm in Santa Venera for confidentiality reasons.

Map 1 - Fieldwork locations in Sicily, Italy



Source: Google Maps, Sicily 2021 (edited by author)

Aiming for epistemic justice, I intend to refuse mainstream narratives by acknowledging local knowledges and practices, those that I was able to encounter during my fieldwork period in Sicily. By threading my analysis by building on the organic conversations that I carried with various members of the farms throughout my journey, I seek to recognize these farmers as agents of their own change and, thus, as those who hold and produce knowledge. To accomplish this, I use a ventriloquism narrative that aims to bring up local knowledge to the paper through my writing, considering myself as a subject of the research process. Therefore, I abstain myself from translating some terminologies and rather choose to use their own vocabulary, recognizing that language is a vital element of their lived understandings and construction of local ecological imaginaries and ontologies. Finally, aiming to keep truthful to their stories, I contacted Valentina from the farm at Alia during different stages of the writing process in order to ask for her validation on the information portrayed in this paper.

1.3.4 Covid-19 circumstances and ethics

We initiated the Master in the midst of the Covid-19 pandemic in August 2020. Thus, we followed most of it online, throughout strict lockdown and curfew measurements in the Netherlands. It came as a surprise when in May 2021 Covid- related measurements started to be progressively retired. Seeking to be compliant with European changing restrictions, the ISS Crisis Management Team and Deputy Rector of Educational Affairs (DREA) requested students who were planning to conduct in-person fieldwork to submit a protocol permission ([Appendix 1](#)). This document aimed to provide detail definition of the in-person fieldwork plan, information on the sanitary precautions and conditions. After being reviewed by my

Research Paper supervisor, I received official permission on the 6 July 2021 by the ISS Institute Board to carry in-person fieldwork research.

Following Italian border restrictions, I conducted a Covid-19 antigen test the day before my departure which resulted negative. As precautionary measurement, I also did a PCR test two days before leaving, but I did not receive the results within the assured 24 hours. At my arrival to Palermo, Sicily, I received on my email the results from the Dutch laboratory which declared that I tested positive for Covid-19. I decided to carry a third test (antigen) in the airport test centre, which came out negative. Facing the contradiction and uncertainty of my test results, hoping to be a false-positive case, I decided to call Valentina, the leader of the farm in Alia which was my first planned visit. I was honest with her about my ambiguous situation. Following the fieldwork ethical protocol and avoiding putting the farm at risk, I went to a fourth laboratory in Palermo (referred by Valentina) and conducted a fourth test (advanced antigen test). The result came out positive. At this moment and following the island protocol, the doctors locked me in an isolated room for five hours and reported me to the Sicilian government. The government sanitary agents came to pick me up and forced me to quarantine in what they called a 'Covid Hotel', at least while they carried out a PCR test to confirm whether I was infected with the virus or not. The day after the results came out positive, I was 100% asymptomatic. The place was a formerly abandoned building in very poor conditions, without ventilation at 40°C – 45°C and precarious nourishment, without any possibility of contact with the outside world. In the following weeks, I continued to be tested every 5 days until my result was negative, counting a total of 18 days in the Covid Hotel. As mentioned above, this experience had an important impact on my mental and emotional wellbeing ([Appendix 2](#)). Therefore, considering my healing process that followed at the farm and following FPE methodologies, which underline the importance of embodied research, positionality and strong objectivity (see above), I intertwine my own process of emotions and need for healing throughout my RP story.

Once outside the Covid Hotel, I headed to the farm in Alia, whose members were waiting for me with open arms. Their empathy with my traumatic experience opened me the doors to their community, who were not afraid of approaching me and kept always close contact. Since I lost more than two weeks of my field research period and considering the uncertainty regarding my exit day from the hotel, I had to make several last-minute changes throughout the fieldwork journey¹. For instance, I extended my trip to be able to complete the data collection, yet I still had to spend less time than planned at the farms. In addition, I informed accordingly the prospective farms to visit about my circumstances, which in fact signified the cancellation of one of them since the farm members did not feel safe with my in-person visit.

¹ All the fieldwork related actions and decisions were discussed, informed, and accompanied by my supervisor at every step of the process, including while I was isolated in the Covid Hotel.

Chapter 2 | History must serve life

2.1 The politics of Agroecology in Sicily

For the two farms visited during my fieldwork as for many other agroecological farms in Sicily, there is a common starting point of their ecological project and that is the European Union (EU) regulation 2092/91 from the 24th of June 1991 on the ecological production methods of agricultural products. This is the first agroecological regulation established by the EU, describing in detail what agricultural products are considered in the decree, what does the ecological practice imply from its production to the process of reaching the final consumer, what rules apply for the labelling, what is the terminology used and its definitions, how these products are controlled and audited, the rules for imported products and in general how is the process of agroecological product circulation within the EU. The 2092/91 regulation has been updated several times since 1991, however its publication thirty years ago was crucial as it gave room to the official ecological certification for agricultural farms. Together with the regulation, the EU opened funding and subsidies for those farms who certify as ecological. In Sicily, this certification was an incentive for many farms to become 100% ecological, considering that many of them were already ahead practicing traditional agriculture.

Representing a great success for the agroecological sector in Sicily, this year the first agroecological law of the region was published - law 29th July 2021 n. 21-. This law promotes the protection of human health, natural environment, biodiversity, ecosystems, and agrarian activity (*Gazzetta Ufficiale della Regione Siciliana* 2021: 23). This includes several regulations for the protection of the natural environment facing the hydrogeological risk to fires, for the protection of Sicilian agricultural products, for the promotion of agroecological practices, and for efficient control and auditing of the agri-food sector in the region. Among other revolutionary measurements, this law fully forbids the use biocides that do not comply with the agroecological practice up from January 2023. In addition, it aims to create ecological districts to promote agroecological principles that follow a sustainable development model based on the needs and realities of local agrarian communities and territories (*Ibid.* 25).

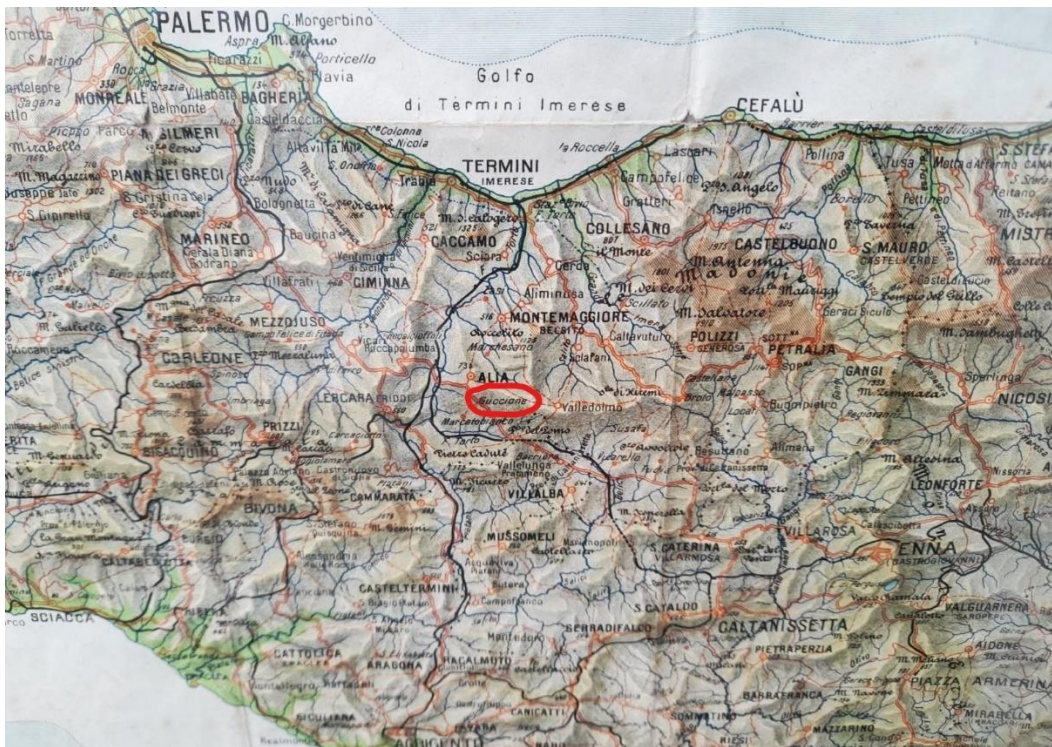
Beyond the specific agroecological policy context, it is also relevant to quickly mention who the buyers of Sicilian agroecological products are, as they become partially the enablers of the agroecological practice in Sicily. In the case of the two farms I visited, the clients are all based in Europe. For instance, at the farm in Alia, the Olive Oil is often sold in BioMarkets or sent to direct consumers in the island, The Netherland, Switzerland, Sweden, and the north of Italy. On regards to the wheat grains, they are mostly sent to the north of the country, from where the grinded flour gets distributed within mostly the national territory. In the case of the farm at Santa Venera, they are associates of a consortium through which they commercialize their fruits and olive oil, which guarantees stable prices. This consortium distributes the products mainly in France, Germany and again the north of Italy. Considering the worldwide reach of Italian industrial agricultural products, it must be noted that the buyers of Sicilian ecological produce in these two cases remain within the European territory. The latter, opens further questions on consumer and markets behaviour, while also setting the context in which these agroecological practices are viable.

2.2 Family land stories: territory and rootedness

2.2.1 The story of the agroecological family farm in Alia

The day I arrived at the farm in Alia, Valentina and Giovanni, the siblings and co-leaders of the farming project were on holidays. Therefore, I spent the first 4 days working closely and spending most of my time with Gabriele, an 84-year-old man, father of Valentina and Giovanni and whose family has owned the land since the 17th century. In fact, in one of the old maps of Sicily hanging in the main house this territory was named after the last name of Gabriele's family – ‘Guccione’ -, considering that its size must have been around 3000 hectares according to Gabriele (Figure 1). In the last century, the family has sold, divided, and donated parts of the territory to other relatives and the neighbouring community, resulting in the current 85-hectare farm that is split in two areas: ‘Il Bordone’ and ‘Il Cavero’, where mainly olives and grains are grown today.

Figure 1 - Map of Sicily from the early 18th century - Guccione territory



Source: fieldwork, Alia, Sicily, August 2021

“*La memoria storica deve servire la vita*” is the sentence that Valentina uses to start telling the story of the farm, while she describes the importance of memory and history of the land in the process of weaving their stories, practices, and future. The departure point of the current agroecological farm, led today by the siblings, is the history of the territory and the family name and, thus, Gabriele's stories are so important. It is relevant to recognize the rootedness of this family farm as “we need to ecologize the concept of territory and to deal with the contingent and relational nature of its shape, boundaries and its very existence” (Roth 2004; Rocheleau 2005 in Rocheleau & Roth 2007: 435).

Gabriele led the farm during all his adult life and in 1992, when his oldest son Giovanni, graduated as Agronomist, the ecological transformation of the farm officially began.

After receiving the ecological-farm certification in 1994, they began cultivating olives and changed the types of grains they produced to organic ones. Although since then they have been eligible to receive the EU subsidy, they never asked for it, only until 2020 when the COVID-19 pandemic outbreak took place. During the following years, Valentina graduated in Philosophy at the Università degli Studi di Palermo while Giovanni continued his studies and became PhD in Agrarian Politics and Economics in 1998 from the same university; still today he is involved in academy and collaborates as researcher with an agrarian research institute in Palermo. Finally, in 2001 Giovanni and Valentina officially took over the leadership of the farm, expanded the ecological transformation further the produce to all the farm ecosystems and initiated various multifunctional activities (agritourism, summer camp, diversification of products, etc.). The involvement of the neighbouring community and historic family networks in the territory has been crucial for this process, as we will explore in further chapters, hence the relevance of recognizing “that networks exist in territory, help create territory and in turn are partially created out of territory” (Rocheleau & Roth 2007: 434). Thus, the rootedness of this family in their territory is the context that will serve to understand later the social and ecological viability of this project and to further envision possible agroecological futures (Ibid. 436).

2.2.2 The story of an agroecological project in Santa Venera

Carola and Luigi are a married couple without children originally from Catania, the first economic and industrial hub in Sicily. They have been married for over two decades and for many years dreamed of having a piece of land far from the city to which they could move. In 2006 they bought a 24-hectares land on the foothills of the Etna Volcano, but it was only in 2010 that they started the agricultural project after their farm was certified as ecological and started receiving financial support from the government for the seeds' acquisition. They did not buy the land with the intention of creating an ecological farm, but soon after they moved, they realized how expensive it was to maintain the property, hence they decided to make the land productive so it could eventually self-sustain itself. Therefore, they pursued the ecological certification, so that they could take off the project with the EU subsidy for agroecological farms. Carola and Luigi are not farmers or agronomists, nonetheless they are passionate about sustainable agriculture, reason why they decided to educate themselves on the topic and have been practicing it by cultivating citrus fruits and producing organic wine. They were lucky with the land since it is all covered in volcano ashes, which makes the soil highly fertile as it contains lots of minerals. However, there is a lack of organic material, and this is precisely where Carola and Luigi have developed sustainable practices to treat the soil, always under an agroecological approach. Later in 2014 they started the agritourism project as a multifunctional activity and nowadays the farm financially sustains itself, where the three sources of income (fruits, wine and agritourism) contribute nearly equal parts. For the agritourism project, they renovated old farmhouses using also sustainable principles to save and recycle water, electricity and building materials.

Carola is an architect and Luigi an engineer; they own a software company and manage other investments. The agroecological farm is born from a desire of moving to the countryside and interest for sustainable agricultural ways of living, but it is not their main source of income. These conditions will help to further explain in this paper the farm-community relations and networks, which are very poor as the project is an individual initiative (closer to a hobby) with no social intend, and the difficulty for social reproduction in such a project.

2.3 The story of grains: a departure point

This territory has been a historic land for grain production, and from there the family history starts to root their stories about their practices, beliefs, and community networks (Figure 2). When Gabriele's grand grandfather acquired the land, grains were considered of great value, in fact labour was often paid in equal parts of grains, oil, cheese and money. Sicilian original wheat grains are very particular as they contain a high percentage of proteins with great benefits for human health, especially for stomach problems. These are called *grano evolutivo*, antique ecological types of grains that were in the original diet of Sicilians some centuries ago, but their consumption nearly vanished in the last century. The story of grains is the departure point to explain why this farm produces *grano evolutivo* as part of their agroecological practice, how does it connect to health and how do the market dynamics work around this produce.

Figure 2 - Alia, historic territory of grain cultivation



Source: fieldwork, Alia, Sicily, August 2021

This story was told to me by Gabriele, and it starts after the first World War, when the Marshall Plan took place. Amidst a post-war scenario of generalized hunger in Europe, the Marshall Plan opened markets to import food products from abroad, giving place for low-cost wheat grains imported from the USA and Canada, which rapidly took over the grain market and changed the diet of Italians and Sicilians. These grains were transported in ships, where the grains would stay for long periods locked in boxes. In order to avoid rats and other animals' infestations, these boxes were poisoned which resulted in contamination as well for humans. In addition, in Canada and USA grains often do not ripen properly due to the weather, therefore the use of drying machines is necessary, which commonly leave moisture on some grains. These characteristics make them low-quality grains, which are still consumed today by most Europeans for their low price, including the Sicilian population. According to Gabriele, this type of low-quality grains can cause many stomach problems in a lifetime.

In an attempt to go back to their roots, ten years ago Valentina and Giovanni started cultivating *grano evolutivo*, more specifically a type of hard grain (*perciasacchi*) and a soft grain (*maiorca*). Gabriele insists that this change was only possible thanks to a buyer in Pa-

dova, located in the north of Italy, who has been promoting in the last decades the consumption of local and organic grains in the country. This mill in Padova is interested in high quality integral grains to produce flour that is especially valued by businesses of pizza and pasta. Gabriele affirms that organic grains demand has increased due to the modern trend of eating healthy and quality food. However, his concern is that these types of quality grains are mostly sent abroad (to the north to be distributed all around the country) and still just a small number remains for Sicilian local consumption, which impacts local people's health.

A market problem that Valentina and Giovanni identified is that the flour produced in the north, from the grains they cultivate, returns to Sicily for sale at a higher price due to additional transportation costs. This happens also because the mill in Padova has the technology to grind these specific types of grains. For this reason, since recent years Valentina and Giovanni collaborate with an antique stone mill and grind their own flour, which is sold after in their house store and bio-supermarket in Palermo. In addition, they work in cooperation with other six neighbouring bio farms, uniting the remaining grains to make organic and integral pasta that is sold locally. In this story, Rocheleau and Roth's (2007: 435) invitation to think on network and root as verbs and not nouns materializes, as *grano evolutivo* comes back as a diet possibility not only for Sicilians but for Italians, given the variety of rooting strategies that connect history, practices, markets, and healthy bodies, weaving webs that I will explore further in the next chapter.

Chapter 3 | Agroecology, health, and resilience

Aiming to respect the environment and the health of the land, the farm in Alia has used the agroecological method since over 25 years. In practical terms, this means they hold a certification on their ecological practices of cultivation, but for them the meaning of agroecology transcends the soil and involves humans, non-humans, the farm dynamics, and the surrounding community. This understanding has been important in the process of creating resilience towards the COVID-19 pandemic, not only at the level of the farm's financial sustainability but also referring to the health of humans and non-humans. In the following chapter, I will explore the stories on the agroecological practices of the farm in Alia, understanding how the practices on the soil and the farm correlate with the processes of building health, environmental and financial resilience.

3.1 Agroecological practices: healthy soil, humans, and non-humans

Giovanni explained to me that when it comes to their produce, their practice is agroecology and not 'natural agriculture', since the latter means no intervention whatsoever on the crops. Valentina advocates for natural agriculture among the farm ecosystem in general, but that is not how the cultivation of grains and olives work at Alia.

Practices on wheat grain (*grano evolutivo*)

Figure 3 - 'Il Caverò' land, the wheat ear, and the grains



Source: fieldwork, Alia, Sicily, August 2021

Grains are produced in the land of 'Il Caverò', which is the biggest part of the farm with an extension of 60 hectares. Gabriele walked me around while explaining me that the agroecological practice starts from the soil, since the soil quality is crucial in determining how many grains per wheat ear (*spiga*) get collected. In their case they obtain in average 35 grains per wheat ear, which is a good amount considering that the most fruitful lands could give up to 50 grains per wheat ear (Figure 3). Likewise, Giovanni insists on their crops rotation strategies to protect the soil as a central practice for the long-term health of the land. Every two years they rotate cultivation of *Sulla*, a legume that grabs nitrogen from the environments and brings it down to the soil through its roots, protecting and resetting the soil. The way they do it is by dividing the land in three areas, from which only one is occu-

planted with wheat grain crops (24 hectares) while the other two are sowed with *Sulla* (18 hectares each). During these two years, the collected legume is sold as food for animals and this way, they avoid using chemicals that impoverish the soil health and produce unnecessary waste.

These rotation practices have been informing the *Mixwheat Project*, an agricultural project of the *Piano di Sviluppo Rurale* (PSR – Rural Development Plan) of Sicily in which they have been participating since its foundation. As part of the project, they also practice seeds diversification, which means that they cultivate and mix 38 varieties of wheat grain within the same land. After many years of observation and experiments, Giovanni claims that sowing grain seeds with a variety of morphological characteristics has resulted in crops that better adapt to the ground and to climate changes. In addition, under this practice the grain plant becomes more resistant and constant per hectare compared to monoculture cultivation, which could potentially produce more quantity but only in the short-term. Finally, seeds diversification helps to fully cover the cultivation land, avoiding the emergence of infectious plants and, thus, conserving the soil health.

Complementary to rotations and seed diversification, Giovanni insists on minimum soil intervention with heavy machinery. The most productive part of the land is on the higher part of the hill, that is why they avoid mixing up the soil with machinery. Instead, they open fissures on the ground to let it breathe, but that happens only once every decade. For the general process of cultivation, they use only the machines to sow (*rompiçolle; seminatrice*) and to collect (*trebbiatrice*) the produce. The cycle of the grain production is intentionally aligned with the seasons, as the sowing process occurs in November, so the seeds receive constant rain until February, intermittent rain between March and May, and finally heavy sun for the drying process during June and July. The collection process normally starts after the second week of July, however this year they started one week in advance as they were fearing the summer fires. They were not wrong as the summer of 2021 was especially catastrophic for Sicily with the highest temperatures ever recorded in Europe (48°C) and massive fires, which we often watched from the distance. Few days before I arrived in the farm, the bordering land to ‘Il Cavero’ was victim of the fires, a terrain that belongs to Gabriele’s sister. Those days the news was overwhelming: the *Parco delle Madonie*, a protected natural area in the north of Sicily less than 40 km away from Alia, burned during several days while I was in the farm, resulting in a major agricultural and biodiversity loss for the island.

Practices on olive trees (and olive oil)

Early morning, Franco, the chief farmer, walked me through the olive-tree plantations which are located at ‘Il Bordone’, the other part of the farm in Alia where the family house is located. They cultivate three types of olives: Biancolilla (soft flavour), Nocellara (strong flavour), Cerasola (medium intensity). The importance of the three types does not relate to the soil practices, but to the flavour of the olive oil, which is made from a mixture of the three, named Lalia Organic Olive Oil. Nevertheless, Franco explained to me that the soil plays an important role on the percentage of oil that can be extracted from the olives, which in their case corresponds to 22% oil in average (the other 78% is water). This percentage is influenced as well from the season and type of olives, nonetheless Gabriele insisted that their average is significantly high considering that the highest percentage in the neighbouring area is 28%. Hence, the caring practices on the soil are so essential for them, which include sowing *trifoglio*, a type of legume, and spreading biological material on the ground (*inerbimenti*) to avoid the soil erosion in winter. In addition, the resting water and

olive pomace (*sansa*) from the oil production process serve to irrigate the olive trees and as nutrients for the soil. The *sansa* is also sold as fuel for heating systems.

The cultivation of olives requires more attention and agroecological intervention since there are several insects and diseases that can ruin the olives when grown organically. The “olives’ flies” are the biggest threat at the farm, their bite is almost imperceptible -the head of a pin- but it ruins completely the olive fruit. Giovanni and an advisor agronomist of the farm described the two agroecological techniques they use to fight the olives’ flies and other minor diseases: 1) *Rame* treatment, which is a bio-pesticide that is diluted in water and spread all over the olive trees; 2) *trappole* or eco-trap is a poisoned object that is hanged on the trees and attracts the flies, which is considered bio because it is not spread on the trees or the ground.

Figure 4 - *Il frantoio*, olives and Lalia Olive Oil



Source: fieldwork, Alia, Sicily, August 2021

The production centre -*il frantoio*- where the machinery is located was built inside an old barn, where they used to breed cows for meat trade. About 20 years ago, they decided to close the meat business and move towards more sustainable practices, such as olive-trees cultivation. Today their olive oil factory has a great production capacity (up to 150 quintals of olive oil per year) that largely exceeds their annual olive oil production, which goes up to 50 quintals (Figure 4). This, even considering that every year they buy extra olives from neighbouring farms to complement their production and, also, produce oil for other olive farmers. The machine requires a lot of energy to work even though it is used only one month a year, which is after the collect that begins on the day of the death – “*giorno dei morti*” – following ‘farmers’ tradition’, as Franco asserted. For this reason, Giovanni and Valentina installed solar panels in the factory to make the *frantoio* energetically more sustainable.

Practices on the farm: humans and non-humans

Regarding the farm infrastructure, apart from the solar panels used at *il frantoio*, the farm in Alia has its own rainwater collecting system. There is a tank built by Gabriele’s grandfather in 1895 to store rainwater for washing clothes, dishes and irrigating the plants. Today the water is still collected in this tank and in an additional water well built by Gabriele, but the water is used exclusively to irrigate the land. On top of that, the three agritourism cabins are renovated old barns, which preserve the cold barn rocks and include a ventilation system with ceiling windows to avoid the use of air conditioning in two of them.

When it comes to the farm ecosystem that is not related to the crops, Valentina advocates for the motto of no intervention, that is ‘natural agriculture’. Fruit plants, aromatic herbs and nut trees grow naturally around the farm and the same for the vegetable garden. Among other products, in the farm they cultivate plums, apples, pears, grapes, pomegranate, lemon, figs, blueberries, hazelnuts, almonds, basilic, salvia, laurel, rosemary, mint, zucchini, eggplants, green beans, tomatoes, pumpkins and other vegetables. All these products are for the farm members’ own consumption, including those who live there and the extended family, farmers, and guests of the agritourism. Despite the generous distribution, they grow often more fruits and vegetables than the ones consumed, reason why Valentina started making jams and pickled vegetables jars to sell hoping to avoid waste. Anyhow, this is a common practice in Italian southern rural families.

Figure 5 - Healthy food, healthy humans and non-humans (Gabriele's hands)



Source: fieldwork, Alia, Sicily, August 2021

Another way of avoiding fruit and vegetables waste is by using them to feed the farm animals (sheep, goats, donkeys, a horse, rabbits, guinea pigs and chickens). The rests of the wheat grain plant of ‘Il Caverò’ and the hay produced around serve also as food for the animals, which signifies a healthy and organic diet for them. Likewise, the chickens lay organic eggs every day (free from chemicals and fake proteins), which are consumed in the farmhouse and agritourism. Gabriele and Valentina insist that the aftermath of the organic diet they maintain at the farm impacts their health and bodies (Figure 5). As an example, I observe Gabriele and his wife, Antonella, both over 80 years old, who are still very active around the farm with no particular health conditions.

Nonetheless, the no intervention principle does not always have the expected ecological outcome. The fourth day at the farm, Franco was upset because a huge branch of the plum tree broke and made a mess in front of the agritourism pool. He had warned Valentina about this and demanded to cut the tree so it would grow lower within human reach, allowing the harvesting of the fruits when ready. Despite this, Valentina insisted on the no-intervention plants’ growing process. The problem was that most of the fruits fell on the ground when they were not ready to be collected and, even though we tried hard to pick up as many as we could, in reality most of them were wasted as served neither as food for animals nor humans.

3.2 Multifunctionality and resilience

Valentina and Giovanni claim their project to be an example of a multifunctional agricultural farm (*azienda multifunzionale*), as they aim to promote services that complement the traditional productive function of food, going beyond the production of *grano evolutivo* and Lalia olive oil. According to Giovanni, expanding the agroecological practice on the crops to other services was a must, considering that throughout the ecological transformation of the farm the harvest becomes more constant but at the same time less productive. For agroecological projects to survive and excel, financial sustainability must accompany environmental sustainability. For this reason, Giovanni argues that agroecology must go beyond the traditional food production function, as proposed by multifunctional agriculture (Hassink *et al.* 2007 in Moruzzo *et al.* 2020: 2), which for him implies the integration of a community approach that creates social value as well. That is, their *azienda multifunzionale* moved from being merely an agricultural project, to a social, pedagogical, didactic, and touristic one. He recognizes that in this creative process of diversifying the agricultural activity, his sister Valentina has been the driving motor and her sensibility a vital piece for success.

This understanding of agroecology, as a practice that goes across the soil and transcends to the farm and community, joins feminist political ecology intends to refuse the dividing binary among humans and nature (Braun, 2004; Castree and Braun, 2001 in Nightingale 2013: 2363). Here, the concept of ‘socionature’ appears helpful not only to represent the relational flow between humans and nonhumans, but also to recognize “the importance of emotion in embodied and ever-dynamic relationships with the nonhuman world that are instrumental in shaping the collective practices (...)” (Nightingale 2013: 2363). Valentina’s and her family’s physical and emotional engagement with the agroecological project is fundamental to understand how and why they follow multifunctional practices and to what extent these have been essential to build resilience and protect health.

3.2.1 Environmental and financial resilience

The multifunctional activities in the farm at Alia can be organized in two sub-groups: their independent initiatives, and the initiatives that participate on the PSR of Sicily.

Independent initiatives:

- Other products: as mentioned above, Valentina makes pickled vegetable jars and jams with the additional farm-grown fruits and vegetables to sell. On top, they practice organic beekeeping, which means that they have hive frames installed but the bees are not locked, instead, they fly freely around the farm. They collect the honey at the beginning of each season and brand it under the name of ‘Dara Guccione BioFarm’, just as the other products. To this, it must be added the previously mentioned locally grinded flour and integral pasta produced in collaboration with neighbouring farms. The production of these side-products is not big, nonetheless, they manage to produce enough to sell to the neighbouring community, the farm guests, at their house store and in some bio-supermarket in Palermo.
- Eolic windmills: according to Gabriele, the land of ‘Il Cavero’ was the first Eolic parc in Sicily as they have installed on the upper side of the hill 11 Eolic windmills.

These are not property of theirs, they rent the land to an external company that sells the energy to the multinational corporation Enel. On top of that, they get 4% of the annual net profit, an income that is re-invested in the ecological farming project.

- Aliavventura: is a pedagogical agricultural camp for children between 8 and 13 years old, mostly from Palermo. The project was born seven years ago from a conversation between Valentina and her daughters' teacher in Palermo. At the time the agritourism was not being profitable and the teacher suggested to Valentina that she use the cabins to host children during the summer, with the purpose of bringing children from the city closer to nature and agriculture. Valentina designed a pedagogical program inspired in her childhood at the farm, in her own embodied experience with nature, which included 'showers' under the wheat grains, Olympic-inspired games (without the use of technology), *un percorso sensoriale* (sensory journey), and finally learning lessons on agroecological principles that would form 'the farmers of the future'. The kids learn about the respect for nature and foodstuff, they are introduced to the concept of KM0- food, which is locally produced under organic standards and that they have the opportunity to collect themselves for dinner. The program also includes basic introduction to antique grains, olive oil production, tree species, herbs, plants, and seeds. All the activities are designed under a non-competitive premise and, instead, aim for community work that engages their fluid relation with nature – that is, understanding socionature ecosystems –. The program takes place for 6 weeks every summer and every week they receive a new group of kids. The summer camp has been a successful bet during all these years, skipping 2020 when it was not possible to organize due to the pandemic circumstances. Valentina affirms that without Aliavventura the farm would not reach financial sustainability.

Initiatives participating on the PSR of Sicily:

- Research: from Giovanni's initiative and research background, they got involved in the *Progetto Sfinge*, which is a research project sponsored by the EU that gathers farmers, technicians, and researchers to promote the cultivation of antique Sicilian wheat grains (*grano evolutivo*). They work with ProBio.Si, a cooperative society that, together with the University of Palermo, collects data about these types of grains from genetics, agronomist practices to the product distribution. In view of the farm's contribution to the preservation and protection of Sicilian biodiversity through their wheat grains practices and research, they receive economic support from this project. According to Giovanni, participating in research is important for them because it does not only inform academy about their years of field learnings working with antique grains, but also impacts policy by promoting their local products (i.e. agroecological law of the 29th July 2021 n. 21).
- Agritourism: the agritourism initiative initiated in 2009 and was the first multifunctional activity of the farm. They renovated three old barns and turned them into guest cabins that receive the name of the olive varieties they produce: Biancolilla, Nocellara and Cerasola. The decoration is carefully selected by Valentina, always including flowers and other locally collected natural items that help create a fluid nature-human environment. Apart from the recently constructed pool that is in the

middle of a forest of nut and fruit trees, guests have also access to the entire farm including the vegetable garden and other crops. In fact, all the food provided by the agritourism is locally produced, even when the guests do not pick to use the food services and instead use the cabin's kitchen supplies. In those cases, Valentina often provides organic vegetables, fruits, jams, and honey for their consumption. She also invites guests to join family dinners and events, as it was the case of Gabriele's 84th birthday. For her, the agritourism is not only about providing a holiday destiny, but about promoting their local traditions, foodstuff, and agroecological understandings (Figure 6). This, with the intention of closing the gap between food production and 'the dinner table', in terms of knowledge, respect and appreciation for foodstuffs, challenging the binary perception of humans and nature. Given their over 10-years of experience in agritourism, they joined a project of the PSR called '*The heart of Sicily*', which is a cooperative to promote hospitality networks and create touristic itineraries across the region in order to support farms' additional sources of income.

Figure 6 - Agritourism: an opportunity to share local ways of living



Source: fieldwork, Alia, Sicily, August 2021

- *AGRIBES project (agricoltura bioetica e solidaria)*: this initiative of the PSR aims to foster the diversification of agriculture and farming activity, that is, agriculture that both sustains and is sustained by the community. This is a cooperative project that promotes the importance of developing and implementing rehab and public health therapies within social and didactic farms, moving away from the mainstream psycho-pharms' approach. This initiative believes that at the heart of agriculture there are great opportunities for effective psychological therapy and rehabilitation (*healing from nature*): coming close to nature, to didactic learning of agricultural work, and to animals (specially for mental retardation therapies). At the same time, these educational days, patients' visits, and conferences represent an extra source of income for the farms.

The social, pedagogic, touristic, and didactic activities of the agroecological farm in Alia do not only bring additional revenue to create financial sustainability, but also create social value, as mentioned by Giovanni. For instance, projects such as Aliaventura, the

agritourism and their participation in research expand their practices and stories to the academic arena, foreign urban families, and the future generations, while creating new agroecological knowledges and imaginaries. Likewise, understanding agroecology as integrated socionature ecosystems allows the environmental resilience of the produce that grows steady over healthy soil, as well as of the human and non-human bodies that consume it. In this understanding the ‘environment’ is a fluctuating concept as it refers to what is on the ‘outside’ of the self, bearing in mind that the boundaries of the self are constantly changing with respect to the ‘outside’ (Nightingale 2013: 2366). Our bodies are carefully integrated with the ‘outside’ as we host bacteria and continue to nourish them with external supplies (Bakker and Bridge, 2006; Bennet, 2010 in Ibid.). Environmental resilience is intimately related to the health of humans and non-humans. The agroecological practices on the soil, the harvest and the animals (organic feeding) rebound on the multifunctional activity that produces local and healthy ways of nourishing the human bodies and minds that interact with the farm (jams, honey, vegetables, fruits, eggs, etc.). ‘Dara Guccione Bio-Farm’ products and projects like *AGRIBES* help building healthy and resilient socionature ecosystems (bodies and environments), while contributing to the financial sustainability of the farm.

3.2.2 In the wake of Covid-19

Amidst the Covid-19 pandemic outbreak, it was expected that the major economic crisis would threaten the environmental and financial resilience strategies of agroecological initiatives, considering their locality, limited size, and entrepreneurial characteristic. While food insecurity was feared by many governments in Europe, a health emergency spread around the world. On the one hand, I remember products started to lack in supermarkets in Belgium, where I live back in 2020; for weeks I could not find toilet paper or flour. My family in Colombia would tell similar stories. On the other hand, a major health concern was the Covid-19 virus attacking the physical body, where comorbidities with cardiovascular and breathing diseases would just worsen patients’ response possibilities. Then, months of confinement and even curfew in many regions in Europe unveiled a concerning precarious mental health scenario in society. Governments were taking care of the economic crisis, but who was taking care of people’s wellbeing? My own fieldwork experience serves as example. Upon landing in Sicily, I tested positive to Covid-19 and the island authorities forced me to quarantine in a closed room in a ‘Covid Hotel’ in Palermo for what was at first an undefined period of time. The restricted food provided, the hygiene and general conditions of the hotel were poor. I barely ate and had to deal with high anxiety and depression levels for 18 days. After this experience, I arrived at the farm in Alia to start my delayed fieldwork research.

The reason why I intertwine my story at this point is because also I, without foreseeing it, experienced an embodied process of *healing from nature* in this agroecological project, which could only resonate with the principles of the *AGRIBES* project of the Sicilian PSR. At my arrival to the farm, Gabriele made the statement: “from now on, we will not talk anymore about the Covid Hotel?”. I was evidently emotionally disturbed by this experience, but from that day my environment, nourishment and routine changed in relation to the surrounding nature. I began a fully organic diet based on the products of the farm and dedicated my days to take care of the plants, crops, and animals as part of my routine as a volunteer. Gabriele and Antonella took special care of me because they felt empathetic with my story, which almost felt as family since they involved me in all family activities, including sharing the three meals, books, family events, short trips to the town and around

the area. During those trips, I met several people from the neighbouring farms and community, such as Filippa from the organic cheese factory and Giacomo from the pizzeria, with whom I also had the chance to talk about local products cultivation and traditions. From this relationality with nature and community, I started my own healing and resilience process of the brutal experience with Covid-19 virus. My fieldwork journey brought me through the local agroecological imaginaries, where socionature relationships build health, resilience, and social value.

Drawing from the understanding of health as central to the agroecological resilience building process, it becomes relevant to explore what has been the specific experience and the impact of the Covid-19 pandemic on the agroecological project in Alia. On regards to the olive oil and wheat grains, the production was not really affected by the health emergency as these are seasonal products and the buyers kept purchasing the same amounts despite the situation. Giovanni suggested that the most affected ones were the agri-food retailers, such as restaurants and pizzerias, but not the producers in this case. Instead, in the case of the wheat grain its price triplicated during 2020- 2021. Giovanni and the advisor agronomist insisted that the reasons for this phenomenon are related to the increase of local demand and the quality of the grains. According to them, the demand in Italy rose the moment the borders were closed, since many countries stopped the industrial export of grains due to the pandemic consequences on border control and sanitation. Giovanni asserts that during the last two years, many Italian pasta companies moved to a policy of 100% Italian grain, including the multinational company Barilla. In addition, Giovanni claims that health and sustainability awareness grew among consumers, hence, the quality of the grains they produce (with more proteins and less gluten) has been valued even more.

Considering that Aliavventura was cancelled in 2020, the present year 2021 was surprisingly successful. Valentina thinks that the fact of being under lockdown and other restrictions for so long, strengthen the voice-to-voice promotion of their camp as an opportunity for children to be outdoors, develop environmental awareness and increase their knowledge on healthy food consumption. At the same time, she shared that this year was more challenging from a psychological point of view as children were more attached to their parents, which made it harder to manage their nostalgia and need of being 'protected'. We did not go further into this topic, which she mentioned was the result of many months of online education from home.

On regards to the agritourism, 2020 was not a busy year, although during summer they still received some guests. Valentina made the most of this time by renovating and improving their agritourism facilities and services. This year there have been more guests than ever before. Antonella, Valentina's mother, affirmed that she has never seen it so busy; a group leaving in the morning and a new one arriving in the afternoon every other day. It was indeed challenging to get the cabins ready in such a short period, a task I did together with Antonella. Valentina considers that the concept of agritourism is already a 'Covid-19 friendly' holidays option. This, added to rising 'bio'-trends and awareness, and the outdoors, healing, and alternative vacations experience offer has led to successful results amidst the pandemic. All the guests that arrived while I was at the farm were families and almost in every case with little kids, who enjoyed running freely around the farm, visiting the animals and the other farm playing areas such as the tree house. Hence, Valentina considers the agroecological farm to be a safe and liberating space for kids compared to the urban setting. Likewise, as mentioned above, for the agroecological farm the agritourism activity has been an opportunity to promote their ecological practices, values, and understandings among urban people, who are often alienated from the rural reality.

The other multifunctional activities and PSR projects have continued during the health emergency. At the community level, including neighbouring farms and cooperatives, these relations and mutual support was not disturbed by the pandemic. Instead, according to Gabriele and Valentina, the local production and consumption of foodstuff helped the pandemic period run smoothly by providing food security, caring relations, and a healthy outdoor space for the community. In fact, in Alia there were only a few cases of Covid-19. Nonetheless the measurements were strictly followed by all citizens and farmers. The ways in which these community and caring relations work deserve closer attention and analysis since they draw the essential values underlying the agroecological project and contribute to the collective resilience process. The following chapter will address these topics in closer detail to further understand how the line between subjects and environments becomes blurred as humans identify with “the environment’ in order to cultivate caring relationship with nonhumans” (Milton 2002 in Nightingale 2013: 2364), allowing integrated socionature ecosystems to emerge out of the daily practices of agroecology.

Chapter 4 | Social reproduction, care, and community

4.1 Beyond the farm boundaries, creating social value

Aside from the four cooperation projects of the *Piano di Sviluppo Rurale* (PSR – Rural Development Plan) of Sicily in which the farm at Alia participates (*Progetto Mixnbeat*, *Progetto Sfinge*, *The heart of Sicily* and *AGRIBES*), Valentina is actively participating in social farming (*fattorie sociali*) initiatives carried by Fondazione Campagna Amica. This project is promoted by Coldiretti, the biggest organization in Italy of agricultural entrepreneurs (Moruzzo *et al.* 2020:5), of which Valentina is director for the province of Palermo. Coldiretti is the main national trade union advocating for peasants' rights, in fact it was created after the second world war to establish farmers' pensions. During the recent Covid-19 pandemic, this organization has been playing an important role in providing healthcare assistance and access to peasants, according to Valentina. On top of that, aiming to bring closer the city with the countryside, for 10 years the organization has created farmers' markets, allowing farms to promote their local products in neighbouring cities.

However, the reach of Coldiretti is not limited to the farmers and the produce, considering that “[the] development of social farming (SF) is connected to the emergence of visions that link the need for relationship-based and community approaches with aspects such as the multifunctionality of agriculture” (Moruzzo *et al.* 2020: 1). In fact, Valentina told me about the educational activities that she is promoting as representative of Coldiretti, which aim to support the process of agricultural activity diversification and to strengthen farmers' networks. In Sicily, the organization offers ‘agrichefs’ courses to train farmers on how to transform their local products in foods of *alta cucina*, that can be offered in the farms as they join networks of agro-restaurants and agri-tourism. Finally, Valentina mentioned the ‘Oscar Green’ initiative of Coldiretti, which every year recognizes and awards innovative farming projects led by young agricultural entrepreneurs.

In addition of being part of this regional farmers' organization, the farm led by Valentina and Giovanni is closely involved and relationally networked with the neighbouring community of Alia, which is largely given by their historical family rootedness in the territory. The agroecological farm is very well known in the area, but even more are Gabriele, Valentina, Giovanni and their family name – Guccione -. Since they host various foreign guests every year, they use the opportunity to promote neighbouring projects, not only theirs. These are some examples (Figure 7):

- Giacomo is a middle-aged man who owns a pizzeria and fish restaurant in Alia, which was heavily affected by the pandemic's confinement measurements. During the days I was at the farm, we had a big group of guests from Belgium. Gabriele insisted to bring them to Giacomo's restaurant, since it recently opened again for the summer season. We booked for them, brought them personally and introduced them to Giacomo. The same day, Giacomo gave us three pizzas and one special *pecorino* cheese in gratitude, which was our dinner that day.
- Azienda Tripi is a cheese factory led by Filippa, they produce mostly cheese made from sheep milk following the ancient Sicilian tradition: *pecorino*. Azienda Tripi is a central place for cheese production in the area of Alia and, thus, Gabriele also arranged visits for some of the guests. I went with the Belgian group as translator and had the opportunity to talk to Filippa, whose speech

was about the preservation of traditional farming practices and products. She was enthusiastic to receive foreign visitors as she promotes their local and ethical ways of producing *pecorino* cheese, so that these practices are known and valued. In a one-to-one conversation we had at the end of the visit, Filippa confessed to me that she worried about the obsession with capital, which destroys the world as it destroys tradition and hinders the transfer of ancient family knowledge (of their practices) to the new generations. For this reason, their farm practices are grounded on values that respect nature, humans, and non-humans.

- ‘Le Grotte della Gurfa’ are a group of ancient caves from the Copper Age located in the area of Alia. It is believed that this place was used to storage wheat grains, which have been historically cultivated on this land, or as a sacred place for rituals. This was told to me by Gioacchino, a young man that has been researching and managing this place for years, whose work has turned this place into a tourist spot. Gabriele mentioned that the land where this monument is located was originally owned by the Guccione family and is one of the territories that was donated to the community as they considered it to be cultural heritage of Alia. This is another place that most of the guests of the farm visit, which signifies an important contribution for Gioacchino’s work in the preservation of historical memory.

Figure 7 - Neighbouring community: pizza, *pecorino*, and ancient caves



Source: fieldwork, Alia, Sicily, August 2021

The significant involvement of the farm in Alia with the community speaks strongly to the principle of ‘the commons’, as “imagined or existing forms of wealth that we share” (Caffentzis & Federici 2014: 94). That is, understanding that the agroecological project exists not only on the soil, but in the farm and in relation to the community, hence, it must bring benefit beyond the farm boundaries. As mentioned above, this understanding of the agroecological practice at the farm in Alia creates social value by transcending to academy, policy, pedagogy, and healing therapy as they cooperate with the PSR regional projects. On top of that, their commitment to creating alternative ways of production has led them to build ecological imaginaries, where working together with the neighbouring and regional community is at the core of the farming project. The latter, resonates with the understanding of the commons as exiting in relational worlds (Ingold 2011 in Escobar 2016: 18). That includes not only nature, humans, and non-humans (socio-nature), but also history and tra-

ditions as collective memory (Ibid: 93). This “(...) stress[es] how powerful is the demand coming from the grassroots for the creation of new forms of sociality organized according to the principle of social cooperation and the defence of the already existing forms of communalism” (Caffentzis & Federici: 96).

4.2 Care, a gendered outcome

4.2.2 Care and *commoning*

The principle of *commoning* exists not only in relation with neighbouring farms and community, as in the cases of Giacomo, Filippa and Gioacchino. These relational caring networks exist within the farm as well, where work is distributed horizontally. Apart from Valentina, Giovanni, Gabriele and Antonella, as family members, there is Franco, the chief farmer, and Tanino, a farm helper; all are locals from the region of Alia. In addition, since a couple of years Valentina has been inviting Dylan to work as cook during the summer, due to the increased workload in the kitchen caused by the summer camp and the holiday season. Dylan is from Sri Lanka and so is Indika, a friend of him that also came this summer to work in the farm. Both, Dylan and Indika, were being hosted in the main family house (Figure 8) and were provided with food and everything they needed during their stay, indeed, as if they were family members. As a point of clarification, Franco and Tanino do not live at the farm since their families live close by. In my personal case as a volunteer, I was hosted in the family farm, too, and was fully included in the family dynamics from the first day, as described above.

The agroecological project in Alia works as a family farm, one that contemplates not only family members but also paid workers such as Franco, Tanino, Dylan and Indika. For instance, Gabriele and Antonella, who are both over 80 years old, spend the whole day working in the farm supporting various tasks, from helping Valentina with the agritourism management, to doing the laundry for the cabins and irrigating the plants, among other farm activities. During the working hours, every member of the farm works collaboratively, there are no individual or single hierarchical roles. Gabriele takes care of the garden when Indika is busy, he often does the groceries for the farm and the agritourism, and supervises other farm details. Antonella supports Valentina with the agritourism coordination, laundry, and cooking. Valentina helps Dylan in the kitchen, while Dylan in turn helps with the house cleaning, agritourism decorations and plants watering. I, as volunteer, was supporting Gabriele and Antonella a lot with their daily tasks, such as doing groceries, cooking, and taking care of the guests. Additionally, I helped Franco and Tanino feeding the animals, irrigating the plants, cleaning the pool and the guest cabins, and collecting fruits and other harvests. I must say that the job was really exhausting considering the high temperatures that we had during those days (36- 42°C). The warmest days, we did not work outdoors much, the family was aware of how physically challenging it was and for them it was more important to take care of the farm members.

Every afternoon around 5 pm, Gabriele and Antonella sit in front of the house to read or talk; Valentina, Giovanni and their families join sporadically. This, I perceived as a farm community open space (Figure 8), that Franco and Tanino join almost every day. They take time to share, discuss, catch up on their personal lives or regional news. It feels like a daily family reunion that any member of the farm can join. Sometimes Dylan, Indika, family friends and guests join too. In the project at Alia, farming works as a family activity that is not limited to the food production, engaging the whole farming family which includes the labour force too (Bock 2004, Jervell 2011 in Seuneke & Bock 2015: 41). The commons

within the farm go beyond the farm produce, and involve also community sharing spaces, the healthy diet of the farm members and their families (healthy community), and the collaborative working dynamics. As Caffentzis & Federici (2014: 101) assert, the commons do not refer in essence to tangible things, but fundamentally to social relations and practices. In fact, commons require a community as they can be created only through cooperation in the process of producing our life (Ibid.).

Figure 8 - Spaces to talk, to share, to read, to live - caring and *commoning*



Source: fieldwork, Alia, Sicily, August 2021

Defining who is part of the community should not be made “on the basis of any privileged identity but on the basis of the care-work done to reproduce the commons and regenerate what is taken from them.” (Caffentzis & Federici 2014: 102). This explains, why the community in the farm at Alia is not limited to the farm family, workers, and volunteers. As discussed above, it entails the neighbouring farms and peoples, and even the guests of the agritourism, since they all are part of the agroecological project and contribute to its very existence. Likewise, the neighbouring farms benefit from the relational networks established within the community. The guests, from their side, do not only nourish their bodies with healthy products, but also join a communal and cultural experience while being at the farm, for instance, by being invited to Gabriele’s birthday. The community requires caring for all its members in order to survive, it implies understanding the commons “not only [as] the means by which we share in an egalitarian manner the resources we produce, but a commitment to the creation of collective subjects, a commitment to fostering common interests in every aspect of our life.” (Caffentzis & Federici 2014: 103).

The multifunctional activity of the agroecological farm in Alia interweaves with caring relations, as it puts forward a new mode of production based on the principle of collective solidarity and not of competition (Caffentzis & Federici 2014: 101). The understanding of agroecology as one that creates collective subjects and collective solidarity resonates with the Buen Vivir understanding of good living, which implies collective wellbeing as well (Escobar 2016: 25). The latter refers to the wellbeing of humans and nature, of socio-nature ecosystems, that must be created in culturally and contextually appropriate ways (Ibid.). Together with rootedness, it is the values of care, *commoning* and wellbeing that enable a greater impact of the agroecological farm in the pedagogical, community, political and academic spheres and, therefrom, the creation of resilience, health, and social value.

4.2.3 A gendered outcome: recognizing women's contribution

As I have mentioned in the third chapter, Giovanni recognizes that his sister Valentina has taken the lead in the initiative and process of becoming a multifunctional farm. Then, I also described all the multifunctional activities and projects that the farm at Alia is involved with, which are mostly created and led by Valentina (DaraGucciones products, agritourism, Aliavventura, *AGRIBES* project, social farming with Coldiretti), just except for the Eolic parc and the grain research project. By leveraging the family historic networks in the territory, Valentina is at the forefront of cooperating with neighbouring community to promote agritourism, children's involvement in agricultural learning, rehabilitation therapies, and social farming transformation in the area. Giovanni mentioned that her 'sensibility' has been a vital piece for success, and I could perceive it too in her close engagement with the agritourism, Aliavventura, and the farm in general. The day she arrived from holidays, her first action was to ask about the plants, the trees, the animals, and the vegetable garden. In fact, immediately after checking on her family, the workers, and volunteers, she went around the whole farm to check on every aspect of it. I went with her and could notice her caring relation with nature and non-humans: she was touching the plants and cuddling the animals to make sure they were healthy. Additionally, her creative and artistic sensibility is evident in the unique decoration of the agritourism cabins, the food menu and the summer camp setting and activities. Finally, within the farm dynamics, Valentina was the one who started bringing international figures to the farm by hiring Dylan from Sri Lanka and subscribing to the WWOOFer Volunteers program, which I was part of. She mentioned to me that her openness to foreigners comes from her curiosity of getting involved with other cultures. Therefore, beyond the outcome of making their agroecological project known, receiving international volunteers is an opportunity for her to learn and 'travel' while being at the farm. She believes in the intercultural exchange of knowledges and experiences, and in making every guest feel part of the family. I could only confirm the latter after my own experience at the farm in Alia.

Recognizing women's contribution in the ecological transformation of the agriculture system is highly relevant for this paper, considering the existing inequality between men and women in agriculture as it is commonly considered a male domain (Shorthall 2006 in Seuneke & Bock 2015: 41). According to Seuneke & Bock (2015: 41) this appears to be changing, at least in Europe, as women are taking the lead in the process of shifting to multifunctional agriculture. This has underlined the key role of women in the development of new farming businesses, which contribute economically to the family farm survival (Ibid.42), but not only. In the learning process of diversifying the farming activity, women enable the construction of new identities, knowledges, practices and strategies, weave new community networks and engage the farm in various learning environments (Ibid. 47).

Valentina's story is not an isolated case, instead it is evidence of the rural sociology writings which claim women "appear more flexible and capable of 'opening up' and crossing the boundaries of agriculture" (Seuneke & Bock 2015: 47). Men generally stay on the farming activity, while women actively engage in relational networks within and outside the farm (Ibid.46), which in the case of the project in Alia contributes as well to social fabric weaving, health and resilience building. What I refer as 'Valentina's sensibility' to nature, art and community is part of her self-individual construction as a woman, however, it can be seen as a common characteristic within women leading environmental movements. To this effect, ecofeminist literature has proved that women interest in the defence of nature and the commons is linked to women's historic poor relation to wage (Caffentzis & Federici 2014: 96), thus, allowing other levels of relation to socionature ecosystems.

This demonstrates how women are contributing not only financially to sustainable food production, but also to social reproduction (Van Esterik 1999 in Trevilla Espinal et al. 2021: 1030). The latter concept, referring traditionally to human and domestic care, expands to environmental reproduction under the agroecological practice understanding of the farm in Alia. That is, earthcare labour (Ibid.), which sees socionature relations as those “securing the conditions for nature’s own regeneration, for the needs of present and future generations.” (Barca 2020: 32). In this process, women are playing a leading role that must be acknowledged, considering that social recognition do not relate only to the monetized economy but to the potential of serving life on earth, which opens the path for a thriving socio-ecological provisioning economy (Dengler & Lang 2021:18). The case of Valentina’s contributions and learnings within the flourishing process of the agroecological farm at Alia illustrates how crucial her role as a woman has been for the survival of the ecological project, thus, unlocking of possibilities for a new agricultural future in the region (Seuneke & Bock 2015: 48). For these reasons, feminist political ecology asserts that overcoming the industrial food system and moving toward an agroecological one “will not be possible if we fail to consider feminist contributions to integrate a more holistic and complex vision (...) and to transition not only to more sustainable practices, but also to more equitable and just- socio-environmental relations”. (Siliprandi & Zuluaga (Coords) 2014 in Trevilla Espinal et al. 2021: 1030).

4.3 Social reproduction, a political act

Through the diversification of the agricultural activity, women are creating communal forms of reproduction (Caffentzis & Federici 2014: 96), as the case of Valentina and the agroecological farm at Alia demonstrate. The ‘common wealth’ in these cases refer to forms of shared social and natural resources with non-commercial purposes, that “(...) recognize the advantages of communal relations for the reproduction of everyday life.” (Caffentzis & Federici 2014: 100). Therefore, when we speak about the commons and caring relations in the agroecological practice, we are also referring to guaranteeing the reproduction of our lives (Ibid. 101). The commons we produce must be transformative for our social relations, otherwise they risk being co-opted as it happens in the farm at Santa Venera, an agroecological project that is imagined as isolated from the community.

The multifunctional farm at Santa Venera practices agroecology in the soil, respecting biodiversity and the natural ecosystems around the crops. Their ecological discourse claims they are sustainable in the cultivation practices and also in whole cycle of the farm infrastructure, including waste management, use of plastic, reduced water consumption and general maintenance. They have solar panels installed, water recycle and ventilation systems that do not use energy. However, they use other technological gadgets as intelligent circuits or robot vacuum cleaners. With regards to the food production, the vegetable garden was abandoned for months, until one of the volunteers tried to work on it again, therefore, the production of local food is very small, and they use it only for their personal consumption. With respect to the social networks, Carola and Luigi are not involved with the neighbouring community. On the contrary, Luigi expressed that they are not interested in joining cooperatives, because they believe that these community projects do not thrive. Luigi mentioned that neighbouring farmers do not have enough knowledge or training to pursue projects worth to spend time on. When I asked him about the idea of sharing their knowledge, for instance related to the sustainable design of the agritourism houses, he replied with the same argument of ‘not being worth the time’. The only relation they have with an external farm is with the shepherd, who brings the sheep to be fed from the plants

of the farm while their faeces leave organic material on the ground, nurturing the soil for cultivation and avoidance of fires. It is a transactional relationship.

The understanding of agroecology in this farm is limited to the soil and farm structure. It operates creating exclusive commons that produce fenced communities, which provide wealth protection and food security only within the ecological project (Caffentzis & Federici 2014: 100). It is contrary to what the principle of *commoning* claims. Looking at the natural and social commons as sources of security and economic power can be exemplified by consumer groups that look for *commoning* in order to improve their terms of purchase (Ibid.). That is the case of the consortium of which the farm at Santa Venera is part, since it guarantees price stability for their harvest and works as a platform to promote their agritourism services, but has no cooperation intend.

Additionally, the term ‘communalism’ can be co-opted as “the jargon to recruit unpaid labour” (Ibid. 97), which I also observed during the days I was at the farm in Santa Venera. For instance, they are active in the WWOOFer Volunteers program, but from the moment I arrived, I perceived their lack of interest in hosting volunteers. I felt rejected and not included in the community, not even being offered or having access to food for my work. This feeling was confirmed by the other two volunteers who were at the farm for over a month. It was these volunteers who welcomed me and introduced me to the daily routine. According to them, there was not a sense of community at the farm, only Carola and Luigi as leaders and an additional understaffed struggle to carry both the farming and agritourism business. They witnessed several mistreatments of the few farm workers, as well as among the volunteers. In my case as volunteer, I experienced with them a day of exploitation, where we had to work standing for almost 12 hours cleaning the grape harvest, while being forced to stay quiet in order to work more productively. Due to the understaffed issue, Carola was constantly complaining about the excessive workload on regards to the agritourism during the season, which she undertook mostly alone. However, when I asked her about it, she explained that those stressful days were the sacrifice to be made for such an ambitious project as their farm.

This type of agroecological project exposes the incoherence between an ecological discourse, which refers to integrated ecosystems, with non-caring individualistic practices. Their story unveils how the commons can either be “a means to the creation of an egalitarian and cooperative society or they risk deepening social divisions, making havens for those who can afford them and who can therefore more easily ignore the misery by which they are surrounded.” (Caffentzis & Federici 2014: 100-101). This fenced project does not create social value further the organic produce and can be seen as a reduced understanding of the agroecological practice that is not sustainable. In fact, Carola and Luigi mentioned their concern about the long-term reproduction of their project, since they do not have children to whom inherit the farm, they do not find ‘motivated people’ who want to work for them in the long-term or young entrepreneurs with whom to partner. Despite this, they do not seem interested in building social relations with the neighbouring community. During the pandemic the buyers were stable thanks to the consortium, however, the agritourism closed completely for over a year. The financial stability was provided by their external businesses, which indicates the economic unsteadiness and vulnerability of their ecological farming project. Thus, Caffentzis & Federici insist that “[f]or no struggle will succeed in changing the world if we do not organize our reproduction in a communal way and not only share the space and time of meetings and demonstrations but put our lives in common (...)” (2014: 103).

Social reproduction in the agroecological practice cannot happen without integrating environmental reproduction, not only through daily practices of ‘earthcare’ but also

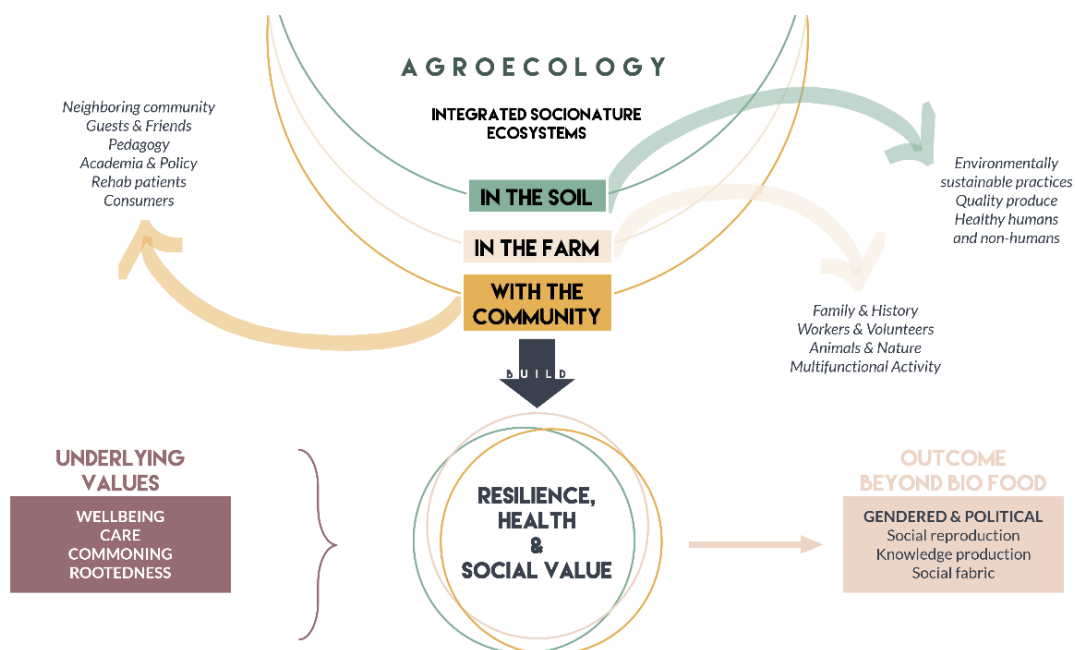
through political action that impacts the whole community. This is because ecological practices and caring activities are the most essential commons for prosperous societies (Akbulut 2016, Perkins 2019 in Dengler & Lang 2021: 10), as they are reproductive commons intentionally building social relations. Understanding agroecology as integrated socationature ecosystems carries a political outcome for social transformation, that drives collective subjects to “take care of the biophysical conditions for human reproduction, thus keeping the world alive” for present and future generations (Barca 2020: iii).

Chapter 5 | Conclusions

When I referred above to the importance of listening to unheard stories, knowledges, experiences, and practices on agroecology, my intention was not that of building *new* knowledge. Rather, I intended to outline “trajectories for thinking otherwise” (Escobar 2016: 13) about agriculture, by engaging with grounded and embodied forms of knowledge held by those at the forefront of food systems transformation. By traveling through the local agroecological imaginaries and understandings presented in this Research Paper, I aim to open the door to multiple knowledges and relational worlds found in the territory of Sicily, Italy. These knowledges are built from historic and territorial ontologies, while speaking strongly and in complex ways to social transformation. The latter, as they provide important insights into the ecological transitions of the agricultural system amidst the inter-related crisis of economy, environment, health and food, exacerbated by the Covid-19 outbreak, whilst responding to socio-ecological needs.

What my RP shows is how agroecology is not only about an alternative agricultural practice of food production, but most importantly it involves and impacts processes of social change. Communal based societies are not a modern phenomenon, they have existed for thousands of years and are still thriving in many places (Caffentzis & Federici 2014: 94), as illustrated in the case of the agroecological farm in Alia. As capitalist development principles trigger more crises which threaten to destroy social relations and the commons (Caffentzis & Federici 2014; Barca 2020), it becomes evermore important to closely observe and recognize local understandings and imaginaries of resilient agroecological farms. The ecological imaginaries in the farm at Alia, Sicily, understand agroecology as integrated socationature ecosystems that exist on top one another, grounded on the underlying values of rootedness, *commoning*, care and wellbeing (Figure 9).

Figure 9 - Understanding Agroecology: Framework Diagram



Source: author (2021)

As the figure shows, these agroecological practices exist in the soil, in the farm and transcend to the wider community. The latter, refers not only to the neighbouring community but includes the farm visitors (agritourism guests, friends, Aliavventura children, *AGRIBES* patients) and the cooperation projects of the *Piano di Sviluppo Rurale* of Sicily as well, extending the impact of the farming project to the academy, regional policy, local pedagogies, and consumers. The interweaving caring relations between humans and non-humans that this communal understanding of agroecology implies, are precisely what allow building resilience, protecting human and nature health, and creating social value within and beyond the farm boundaries. In so doing, the agroecological project as practiced in Alia produces political and gendered outcomes beyond the mere organic produce, having positive effects for social reproduction, local knowledge production and the construction of social fabric.

First, with regards to the concept of social reproduction, enabling its expansion toward environmental reproduction makes visible “the forces of reproduction, that is, those agencies – racialized, feminized, waged and unwaged, human and nonhumans labours- that keep the world alive” (Barca 2020: 18). Hence, these local experiences of agroecology create new collective narratives for knowledge production that challenge reduced understandings of ecological agriculture as one limited to the sole practice of food production. Finally, by organizing and living ecological farming in communal ways, as fostered by Valentina, the agroecological project promotes the creation of collective subjects, solidarity and well-being that weave and strengthen social fabric through collaboration and community learning. Then, agroecology as practiced in the farm in Alia turns into a political, community, and ecological project with a feminist intent.

I refer to a feminist intent, because agroecology as a transformative practice must address social complexities and relations underlying food systems, in order to create not only more sustainable practices but also more equitable and just ways of living for present and future generations. That includes attending the demands of those sustaining the food systems, where women’s productive and social reproductive work, knowledge, and leadership in strengthening the social fabric are key components (Trevilla Espinal *et al.* 2021: 1042). Therefore, “[a]groecology needs to increasingly integrate feminist contributions to understand and transform power relations in food systems” (Trevilla Espinal *et al.* 2021: 1029). The importance of recognizing women’s contributions in the ecological transition of the agricultural system, arises from their essential leadership in the processes of protecting the environment, defending the commons, stablishing caring relations with humans and non-humans, and constructing community networks based on ethics of care, dignity and health (Ibid. 1041- 1042). The stories and grounded experiences of the multifunctional agriculture project in Alia, Sicily, prove the latter, as they create resilient ecological imaginaries and new understandings of the agroecological practice while producing positive outcomes for gender.

Thus, I join my voice to the forceful choir of Latin American rural women:

“without feminism, there is no agroecology!”

(Carrasco 2009; Pérez- Orozco & Agenjo 2018; Puleo 2011 in Trevilla Espinal 2021: 1030).

Appendices

Appendix 1 - Fieldwork Safety Covid-19 Protocol

Sunday, 4 July 2021

COVID-19 Protocol on In-person Fieldwork Research by ISS MA Students

[Issued by the ISS Institute Board, 1st July 2021]

Giulianna Delgadillo, 537221

Information to be Provided When Applying for In-person Fieldwork

1) Does the fieldwork require the MA student to leave the Netherlands?

Yes, my field work requires that I travel to Sicily, Italy. This will allow me to do the interviews that will form the basis of my study, as well as undertake the methodology which is based on participatory visits and observations.

Please note that it is considered safe to travel to Italy. According to the Dutch Ministry of Foreign Affairs updated on the 1st of July 2021, the color code of Italy is green. Italy has been included in 'The Netherlands' safe country list to travel. Since 15th June 2021, one does not have to submit a negative test when you return to The Netherlands and one does not have to go into (home) quarantine. It is required that The Netherlands to Italy with a mandatory test, accepting both molecular and antigenic tests.

2) Describe the Covid-19 circumstances in the proposed place of research; and the measures / restrictions / health and other advice regarding Covid-19 in place in the proposed place of research.

I am confident that measures are in place in Italy which is considered I will not be exposing the people I am interviewing to Covid-19 or be exposed myself. I will wear masks at all times and take extra masks to ensure that the people with whom I am doing research will also be wearing masks. I will take extra care throughout the journey carrying hand sanitizers and avoiding any crowded places. As I will be mostly outdoors in rural areas these measures should be sufficient.

3) The 'do-no harm' principle now also relates specifically to the possibility of COVID-19 infections, of the MA student, research assistants, research participants, and others. Describe the measures which will be taken to minimize the risk of COVID-19 infection during fieldwork.

- a) What measures will be taken to protect/minimize health risks to the health of the MA student, research assistants and participants, and those they will be in contact with afterwards?

I plan to bring antigenic self-tests with me to make sure I am negative before to go to the places I am going to conduct interviewees. As stated above I will be explicit with the people with whom I am doing the research about wearing masks and disinfectant, and ask that they are also aware of the need for regular hygienic measurement throughout the research.

I will build into my visits time to discuss with each participant the need for safety and take precautionary measures.

Methodology:

I plan to visit two farms linked to the association WWOOF between 15th July to the 15th August, in order to dedicate two weeks to each project. My research looks into the daily dynamics of the farm. For this reason, I will join the farms as a volunteer (both farms have volunteering programs during summer), that is helping them with the crops and general work in the farm. My approach has been agreed with the farm leaders, who are willing and enthusiastic to participate in this research process. The volunteer program will cover my accommodation and basic food as I will stay in the farms' guest room (non-shared).

b) Are the specific proposed protective measures available and affordable?

I will follow regular protective measurements (medically recommended) as mentioned above. In addition, I am taking the first shot of the Pfizer vaccine on the 28th of June, which means I would go already 60% vaccinated to the fieldwork. From the participants side, it must be mentioned that most of the day they work outdoors, therefore they are not obliged to use masks. However, I will hold the responsibility of maintaining a prudent distance even if outdoor to guarantee both the participants and the researcher's safety. The COVID-19 vaccination in Sicily is opened now for all the population over 12 years old and it's moving fast; in Italy over 56% of the population has been vaccinated at least with one dose.

c) Considering the above, how was the research methodology adapted, for example so that social distancing and other preventive measures will be observed?

As mentioned above, the methodology is based on observation and spontaneous conversations, which will happen on the field. The field in this case is an open farm, where I will be working as volunteer to become submerged in the dynamics and the community, to understand deeply their practices and stories.

The 'do-no harm' principle now also relates specifically to preventing MA students, research assistants, and research participants from getting into situations where they cannot abide by local, Corona-related restrictions such as travel bans, quarantines, use of face masks, or curfews.

d) If applicable, describe the measures taken to avoid 'doing harm'.

e) Are specific protective measures necessary, and are they available and affordable?

f) Any other relevant information.

As the research will be conducted on agroecology projects, the risk is very low since all the conversations will take place outdoors, with proper 1.5 m distance and using protective masks. Calculatedly, I designed my research to be done under a situation and context where I could follow safety Coronavirus restrictions. I am aware of my responsibilities as researcher not only following health safety restrictions, but also minimizing the risk of my participants. In case I will not able to guarantee the safety of my participants, I will stop or withdraw the fieldwork depending on the circumstances.

4) How to act in case of a new outbreak or upsurge of COVID-19 in the research location?

a) Describe the measures taken to ensure that all involved in the research will stay up-to-date on the COVID-19-related risks and preventive measures to be taken.

From the researcher side, I will be traveling by myself, so I will keep up to date with the COVID-19 information or the region. In case of a COVID-19 outbreak, I will return im-

mediately to The Netherlands. From the participants side, I have been in touch with the owners of the farms clarifying my intentions, ethical concerns and listening to their conditions and opinions. They have mentioned that they are open to receive volunteers, guaranteeing health- safe conditions for the farmers. The farms' owners claimed to be happy and willing to collaborate in this research and affirmed that by 30th July all the members of the farm would be fully vaccinated.

- b) How will the MA student act in case of a drastic change in the local COVID-19 situation, in terms of, if applicable:
 - i. ending the in-person field research (both by the MA student and/or research assistants);
 - ii. returning to the Netherlands or moving to/staying in another, safe location.

As mentioned above, I would pause the in-person field research and return to The Netherlands and finish my research online.

Appendix 2 - Poem on Mental Health in Covid Times

At my 7th day in the Covid Hotel, I received the terrible news that I was staying a longer time since my PCR test came out positive a second time. While looking at the window, which was my only view and fortunately faced the sea (Figure 10), I wrote this poem about mental health and emotional wellbeing.

Figure 10 - The window view



Source: fieldwork, Alia, Sicily, July 2021

Friday, 23 July 2021

Agua de mar

Hay días en que el tiempo pasa tan lento que raspa la piel.

¿Te ha tocado frenar la vida de repente?
Nunca es algo que escogemos,
No tenemos la claridad mental para identificar cuando debemos detenernos.
Entonces, llega la vida y te golpea de frente.
Casi siempre es el cuerpo quien recibe la bofetada,
pues si el cuerpo se detiene, tú también.

Y entonces, ¿cómo parar la mente?
que maquina a miles de caballos de fuerza,
Y me ahoga,
Me lleva donde no quiero ir,
adentro.
Respiro profundo,
Y regreso,
donde hay calma y silencio.

Ahí vamos de nuevo,
El cuerpo estático,
Y la mente a volar y volar.
¡Basta ya! ¡Detente!
Es un frenesí que me desgarrar el alma en cada curva.
Me quiero bajar,
Quiero quedarme viendo el mar,
Haciendo preguntas banales sin respuesta.

Quiero irme en el perfecto barco de vela que vi esta mañana.
Parecía de papel.
Seguro que con su andar llega al horizonte,
Donde se dibuja una línea perfecta
que distingue el azul del mar del cielo.
A lo mejor se pierda en la inmensidad de los matices,
se pinten colores imposibles en su lienzo blanco,
y desaparezca en el ocaso.

El silencio agudiza la vista,
Cierro los ojos para observar con el alma.
Por un momento estoy ahí,
Estoy aquí, detenida en el presente.
Y me encuentro,
A rebotar de pensamientos.

Inicia de nuevo,
La montaña rusa que me lastima,
Cargada de miedos, cargada de emociones,
que se sienten como el rozar de una navaja en el pecho.

Se me derrama una lágrima.
¿Por qué adentro duele tanto?
¿Por qué corre por mis venas tanta sangre y no agua de mar?
Así cuando cierre los ojos,
Me quedaría viendo las olas en su eterno movimiento,
Sin inicio ni fin.
Así podría continuar observando como el sol
cambia los colores del agua a su parecer,
a su reflejo,
A medida que avanza.

Llévame.
Llévame donde la mente no nos alcance,
Llévame en ese barco de vela
Para navegar hasta donde se ponga el sol,
Donde los colores no cambian,
Donde exista
Solo presente.

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