ACTION LEARNING AND RESEARCH STUDIES PROGRAM
FOR THE NEXT GENERATION OF FOOD ACTIVISTS

Master in Agroecology and Food Sovereignty

a.y. 2020/21

Università di Scienze Gastronomiche di Pollenzo
University of Gastronomic Sciences of Pollenzo

Edited by Paola Migliorini & Charlotte Prelorentzos
Layout and Design by ALF creative
Printed in Italy, 2021

ACTION LEARNING AND RESEARCH STUDY PROGRAMME
FOR THE NEXT GENERATION OF FOOD ACTIVISTS

Master in Agroecology and Food Sovereignty

a.y. 2020/21

This booklet presents the first edition of the study programme of the Master in Agroecology and Food Sovereignty, the involved communities, the students and their action learning and research results.

CONTENTS

WELCOME MESSAGE

Although just at its first edition, what a journey this Master has been!

This Master programme placed experiential learning in the centre of higher education. With the aim of sharing with you this adventure we co-created this Booklet to:

- *introduce the communities where the students spent three months and get to know them*
- *share students' experience, in particular from the 3rd phase (community period), and thesis results*
- *disseminate the content of the Master Programme and its educational approach*
- *promote the students for their future carrieres.*

We started the planning work in 2018 when the Rector gave me the role to develop a new master programme in the area of Agroecology. This came in the same period when the NEXTFOOD project started and it was a perfect fit!

This Master programme has been co-designed within the NEXTFOOD H2020 research project "Educating the next generation of professionals in the agrifood system" that has the aims of enhancing the co-creation of innovation and knowledge in agriculture, forestry and related bio-value chains; developing an innovative European science and education roadmap for sustainable agriculture; and inducing a paradigm shift from a linear to a cyclical approach of learning.

Two planning workshops have been implemented in Pollenzo, involving Nextfood partners, former and actual UNISG students, Slow Food activists, farmers and technicians with the aims to apply a methodology based on experiential learning and case studies, using as a reference the action-learning model, that seeks to generate a close link between University and Society:

Feb 2019 - 1° Co-Creation workshop on Methodology

May 2019 - 2° Co-Creation workshop on Content

In these workshops we focused on four central questions of agroecological education: the why, what, how, and who. Why do we need to develop such a programme? What are the key competencies, skills, and attitudes for future agroecologists? How do we best teach and learn agroecology? Who the learners and teachers are and should be?

After two years of intense planning, a new education programme based on the Nextfood approach has started in September 2020: 16 students from 10 different nationalities (Brazilian, Canadian, German, Indonesian, Italian, Swiss, Tanzanian, Ugandan, UK, U.S.) arrived in Pollenzo in order to start their journey with the Master in Agroecology and Food Sovereignty.

Fig 1 - The NEXTFOOD Model [1]

[1] Lieblein, G.; Breland, T.A.; Francis, C.; Østergaard, E. (2012) Agroecology Education: Action-oriented Learning and Research, Journal of Agricultural Education and Extension, Vol. 18, 27-40.

The Covid-19 restrictions forced us to change many planned activities. In particular, the practical parts of experiential learning were affected, but learning goals were achieved and core competences were improved.

This success is the outcome of a strong collaboration among severals and I want to thank many for this very good results to:

- my main collaborators Charlotte Prelorentzos and Natalia Rastrogueva who have worked with me day and night to make it happen
- Geir Lieblein from NMBU (Norway) who introduced me to Action learning and research since 2010 also through the network of ENOAT
- farms in Piedmont that hosted our students (in person or virtually): Orto del Pian Bosco, Erba Luna, Il Papavero Rosso, Organismo Agricolo Nuove Rotte, Ceretto, Tenuta di Paganico, Coop Tesori Bio, Il Frutto Permesso
- Slow Food for the support in the Terra Madre community selection
- the communities we have been in contact and then due to COVID was not possible to collaborate with: Cooperative PATERNA Valdarno Community (Italy), Comunità delle Madonie (Italy), Nong Kham Haed and Ban Phin Communities (Laos), Ruispiri Biodynamic Vineyard (Georgia), Food Education and Awareness Raising, Târgu Mureș · Marosvásárhely (Romania), Jballas pour la biodiversité & CIPA Pierre Rhabi (Morocco), Trappa di Sordevolo - Comunità Luoghi Abitati - Valle Elvo (Italy), Habiba Organic Community (Egypt), Ulvik Horticultural School (Norway), Ballymaloe Cookery School (Ireland), Agribusiness Training Center for Rural Youth (Perú), Slow Food Community "Finca del Medio, family life in the countryside" (Cuba), Comunidad Cacao nacional del Chocó (Ecuador), Glynwood Center for Regional Food and Farming (USA).
- all the professors, teachers and seminar's holder of this edition: Alexander Wezel, Alieksei Taran, Andrea Pieroni, Bettina Bock, Carol Povigna, Carola Strassner, Carolina Starr, Caterina Batello, Charlotte Prelorentzos, Cinzia Scaffidi, Claudia Vaderna, Dario Leone, Donatella Saccone, Edie Mukiibi, Emanuele Enria, Eugenia Amisano, Franco Fassio, Gabriele Volpato,Geir Lieblein, Jan Douwe Van der Ploeg, Lauren Nelson, Lorenzo Bairati, Luisa Torri, Manuel González de Molina Navarro, Marco Bindi, Maria Piochi, Marta Rivera-Ferre, Matthias Halwart, Michel Pimbert, Miguel Altieri, Natalia Rastorgueva, Paolo Barberi, Pasquale Steduto, Rick Stepp, Roberta Cevasco, Stefano Canali, Stefano Pescarmona, Susanne Gjedsted Bügel, Valentina Robiglio.
- the several associations that have collaborated with us: Il Limone Lunare - Associazione di promozione sociale, Agroecology Europe and AEEU Youth Network, Via Campesina, Pesticide Action Network, IPES FOOD;
- all UNISG offices and staff
- and last but not least, I'd like to thank the MAFS students. They have been amazing in developing this master programme with us collaborating, writing, discussing, questioning, supporting, proposing, answering, presenting, observing, participating, dialoging, visioning, re-solving, re-searching, re-flectioning and many more. Due to COVID19 we had less than planned in person exchange and being the first edition we made some errors, however for sure we all have learned a lot (me first) from each others and from this very intense experience! I just want to cite a little phrase that one of our students wrote in a reflection journal:

  "This whole course, particularly the third phase, has subtly but absolutely transformed the way I address agroecology. That holistic worldview, that third eye almost, has been unlocked, without me even realizing until now. Thank you!"

In order to support the agroecological transition towards more sustainable food systems we need enthusiastic and well prepared facilitators of change. This is particularly urgent in vision of the EU Policy and European Green Deal (Farm to Fork and Biodiversity strategies as key components) that places specific goals within 2030.

So, dear Agroecologists,

I'd like to dedicate this booklet to MAFS students: you are our future and the testimonial of the message of this new master programme. I wish you a good life and a happy future and that we will continue our journey together, connected to nature with our heart and head!

Paola Migliorini, Convenor of the MAFS

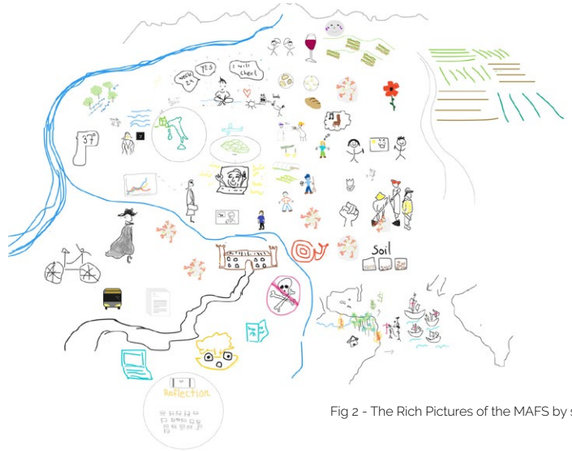


Fig 2 - The Rich Pictures of the MAFS by students

THE PROGRAMME

Paola Migliorini, Charlotte Prelorentzos, Natalia Rastorgueva, Geir Lieblein

Ambitions for education are essentially captured in the Sustainable Development Goal 4: "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030.

However, teaching does not necessarily lead to learning.

Although it is really clear that facilitators of change are needed in order to foster the transition towards sustainable food systems - appropriate educational approaches and programmes needed to be developed.

In the Master Programme in Agroecology and Food Sovereignty (MAFS) we aim to educate the next generation of agroecologists with the necessary competences (knowledge and skills) needed to become active facilitators of change in agrifood systems and to support food sovereignty.

With a systemic, case- and action-based approach that integrates natural and social sciences, students have the opportunity to develop:

- An understanding of the ecological, technical, social, economic, cultural and policy dimensions of farming and food systems;
- A trans-disciplinary profile and competences based on holistic knowledge and necessary skills to cross the gap between knowing and doing and to become a facilitator of change.

MAFS is a first-level master, with a total of 90 ECTS (1 ECTS = approx. 25 hours of student work).

Moreover, a very good innovative element for UNISG was introduced due to the good collaboration between NMBU (Norway) and ISARA (France) for the continuation of the master course to a second level master degree for the students completing the second year at the Master in Agroecology in one of these universities.

Program Structure

MAFS links theory with action and focuses on the self-development of students' competences. As part of the learning experience, students explore and contribute to the development of a community for three months, connecting theoretical knowledge with the practical and different stakeholders.

The programme includes one study trip and farm visits in Piedmont which are a dynamic learning tool that gives students unique access to farming experiences.

Elements of the educational approach:

- Action- and experiential learning & research
- Peer-to-peer learning (P2P) and e-learning
- Case-based approach
- Farm and field visits and practice in the UNISG garden and other lab
- Networking, being part of the international agroecology community (Via Campesina, Agroecology Europe, Slow Food, FAO Dep. Agroecology, Nextfood partners, farms)
- Mentoring programme
- Competence development

A competence is not synonymous with a skill. To be competent one has to combine knowledge, skills and attitudes to enable successful task performance. In this context, the successful task performance is related to improving the sustainability of our future farming and food systems.

In agroecology we emphasize the following core competencies:

- **Participation:** the competence of participating in work in the field, not as a distant observer, but rather with personal commitment and dedication in interaction with different stakeholders.
- **Observation:** the competence of carefully examining situations in the "world out there" with which you are confronted, before you make any judgements about the situation. This has the intention of an unbiased examination.
- **Dialogue:** a process which helps us notice the nature of our thinking, that increases our capacity to move into and toward difficult issues in a welcoming fashion.
- **Visioning:** is the process whereby we activate our insight and imagination, connect with our values and sense of purpose and create mental images of a desired future state.
- **Reflection:** is a process of exploring and examining ourselves, our perspectives, attributes, experiences and actions and interactions.

The full 1-year master programme is divided into four phases.

Phase 1. LAYING THE FOUNDATION (September – December)

Activities: building a common theoretical background and competence profile, setting up peer learning groups (student/student and student/mentor), becoming familiar with the action-learning approach.

Goals: Building the ground with a multi-perspective approach; Practising the necessary competences for sustainable development and for becoming a facilitator of change; Identifying the Terra Madre community for each student; Formulating research questions and learning focus.

Modules:

- Action Learning & Action Research
- Agroecology I & Historical Ecology
- Food Sovereignty
- System Thinking
- Cultural Ecology & Anthropology
- Sociology and Rural Development
- Food Law & Gender Issues
- International Economics & Agricultural Policy

Phase 2. PREPARATION FOR ACTION-LEARNING AND ACTION-RESEARCH IN A COMMUNITY (January – March)

Activities: going deeper into detailed Action-Learning and Action-Research at agricultural and food system level, designing research and learning plans (learning cycle), preparing the project proposal.

Goals: Deeper understanding of agroecosystems at farm level and food system level; Finalising the proposal for the research project in the community; Preparing students for Action-Learning and Action-Research within.

Modules:

- Climate Change
- Soil
- Water
- Biodiversity & Foraging
- Plants
- Animals: Husbandry, Fisheries & Aquaculture
- Agroecology II & Practices
- Food Technology & Sensory and consumer science
- Sustainable diets
- Agricultural Economics & Food Supply Chain
- Food Sovereignty II: Food Governance

Phase 3. RESEARCH PROJECT IN A COMMUNITY (April – July)

Activities: students work on their Action-Learning and Action-Research Project within the Slow Food and other communities, supervised by professors, mentors and P2P learning groups.

Goals: Carrying out the Action-Learning and Action-Research Project; Contributing to the communities.

Phase 4. FINALISING RESEARCH, THESIS AND GRADUATION (July – September)

Activities: finalising the individual master thesis based on Action-Learning and Action-Research project, publishing a booklet (collection of the students' experiences in the communities), graduation.

Goals: Finalising the master thesis, Publishing the booklet, Thesis defence and graduation.

Diversity of assessments

In the MAFS a mix of educational activities was carried out that imply a diversity of assessment methods:

- rich picturing
- written group documents
- group presentations
- multiple choice tests
- initial/final questions
- individual reflection documents
- group community portfolio

The 3 individual reflection documents are based on a reflection journal: a structured and continuous reflection on learning goals and it is related to the inner students' world of the action-learning and action-research approach. The students will: assess the weekly activities (What do I think of the course commitment?); develop an individual reflection diary (What am I learning? How do I feel?). Individual reflections are produced during the 1st, 2nd and 3rd phases of the program (September – July).

The Community portfolio is the tool which supports the connection of the weekly academic topic and the practical reality in the communities. It is a collection of information to prepare the students for the expected situations and challenges faced by the communities. Furthermore, it is a part of the research proposal which helps the students to formulate their research objectives. It is related to the outer students' world of action-learning and action-research. This part is produced during the 2nd phase of the program (January – March).

THE 11 COMMUNITIES

During the 3rd phase of the Master programme (April 2021 – July 2021), students alone or in small groups were carrying out their Action-Learning and Action-Research Projects within Slow Food and other communities, supervised by professors, tutors and community representatives.

Although the communities interacted with the students in all phases of the Master, during the 3rd phase student's carried out activities: different field, farm and soil management work; animal care activities; collecting wild herbs/foraging; harvesting and processing food products; hospitality, kitchen and marketing (visiting farmers market) activities; applying research methods, like interviewing people, field experiments, research trips/excursions, ect.

The mutual benefits of the collaboration between UNISG, Community and MAFS students included: enlargement of networks, build relationships and exchange among all actors; discovering new cultures, rural realities, local contexts, different production approaches; identifying strengths and weaknesses of the communities on the specific topics (i.e. soil, water, biodiversity, climate change, economy, social, policy, etc.); providing pathways and contributions to the communities' Food Sovereignty through Agroecology.

In the academic year 2020/21 many changes happened due to COVID19, restrictions and impediments for travelling have limited the selection of countries for the 3rd phase. Thus, the students selected their communities either in the EU or in their home countries: Canada, France, Greece, Italy, Portugal, Spain, Switzerland, Tanzania, and UK.

Community 01
MELITAKES GREECE

Melitakes is a social cooperative nestled in the foothills of the Asterousia Mountains of Crete.
The cooperative cultivates healthy organic food using agroecological methods, while also providing educational and cultural services to the public.

The Melitakes network includes a handful of farms that cultivate seasonal produce, olives, olive oil, ancient grains, and traditional herbs. Cultivation methods include a mix of local and agroecological practices like mulching, intercropping, agroforestry, cultivation of terraces, use of local seed, and usage of nearby inputs to the soil like sheep manure and herbs. With farms in Pyrgos, Listaros, and Moires, each brings a high level of diversity through their various products, microclimates and social connections. Through the sharing of knowledge and resources, each contributes their part to the collective.

The products are offered to the public through two avenues. The first is through the cooperative's taverna in Pyrgos called Dasaki, where foods are transformed into delicious traditional Cretan dishes. The second avenue through which food reaches the public is direct sale to consumers as fresh and packaged goods, which are on display at the taverna, and also offered for delivery.

Melitakes' projects and participation in the rural network are a large part of what they do, and this sets them apart from other cooperatives. These projects include educational workshops, facilitation of a school garden, ecotourism reflecting the true pulse of the area, environmental restoration endeavors, an annual seed festival, and the maintenance of a community seed bank with agronomist Stella Hatzigeorgiou at the helm. These diverse activities are aimed at fostering and transmitting the high ecological and cultural value of Asterousia. Following their personal connections to conviviality, seeds and the earth, the members of Melitakes continue to shine light on a more just food system in Crete.

By Jasmine Yasemin Sarp
& Alessandro Bono

Community 02
LA JUNQUERA SPAIN

The community 'La Junquera' is a 1100 hectare sized organic and regenerative farm situated in South East Spain in the province of Murcia. It is part of the 'Altiplano' region that is considered as one of the most degraded landscapes in Europe.

The farm, that has been family owned since 1829, now produces, besides rotating crops of local cereals, also almonds, pistachios, aromatic plants such as sage and lavender, apples, olives, walnuts, grapes and vegetables. The livestock of the farm consists of a small herd of almost extinct 'Murciana Levantina' cattle, chicken, horses and 1000 Segureña sheep are grazed on the land. Since 2015, the owners started to implement many agroecological and regenerative practices in order to improve soil health, water retention and biodiversity on the property. Practices include the creation of ponds, swales, dams and sediment traps. Reforestation projects with local and resilient trees and bushes, the creation of biodiversity corridors and planting of plants to attract pollinators are further examples. La Junquera is not only a working and profitable farm but also a well-known educational farm for regenerative agriculture within the region as well on a national and European level. It hosts the Regeneration Academy, a business with the mission to use education as a tool to regenerate the land and to exchange knowledge with a variety of stakeholders. The academy regularly hosts students, interns, collaborates with different universities, EU projects, local schools and is part of the regional regenerative association AlVelAl. There is also an ecological restoration site on-property that is run by the Ecosystems Restoration Camps organization. Today the La Junquera 'cortijo', a previously abandoned village, is slowly being renovated and brought back to life. Through the network and many projects, it has now become a lively community of students, employees, young entrepreneurs and artists, regenerating also the social element of the rural landscape.

By Maria Braun

Community 03

MONTADO DO FREIXO DO MEIO PORTUGAL

Montado do Freixo do Meio is an agroecological farm employing about 30 people in the Alentejo region of Portugal. Montado describes a traditional agroforestry land use system that combines oaks and other trees, pastoral activities, and horticulture.

The farm is extremely biodiverse, boasting over 1000 catalogued species of plants and animals. The holm and cork oak trees of the montado, from which cork and acorns are obtained, are the defining landscape characteristic. However, the farm is also home to citrus trees, olive trees, and heritage and breeds of pigs, chickens, turkeys, sheep, and goats. The farm contains several agroforests that combine a number of different young and mature trees layered in strata with bushes, vines, and horticultural crops, creating the conditions for healthy and fertile soil. Montado do Freixo do Meio is similarly diverse in its commercial production, selling over 300 products from their vegetable gardens, bakery, and vegetable and meat processing sectors. The farm offers educational activities to promote values of sustainability, agroecology, and regeneration. One of their most unique initiatives is the promotion of the oak acorn not only as feed for black pigs, which produce the prized Iberian ham, but also as a food that can be used for human consumption. The exploration of this wild food is emblematic of the farm's appreciation for past local production systems and food transformation methods, importantly valuing the traditional knowledge that accompanies them.

By Penelope Spica
& Samantha de Lucena Caldato

Community 04

FARMING UK

My Terra Madre experience was very different to my counterparts during the action learning phase of the course. I did not base myself in a single community. I in fact visited 19 different agroecological and conventional farms over the 3 months.

This had not been the plan, but Brexit and covid-19 caused travel havoc, meaning I had to return to the UK – my home – for my action learning. Through this adversity we created a custom plan matching my circumstances and needs. This flexibility was admirable.

I have visited organic farms, agroecological farms, agroforestry farms, biodynamic farms and conventional farms, market gardens and CSAs, dairies and bakeries. I have met mustachioed Spanish men, ponytailed pig farmers, Instagrammers, dairymaids, founders of the publishing company Dorling Kindersley (DK; the DK), growers wearing fire dungarees, wheat barons, men with frosted-tip mullets, academics, equestrian sheep farmers, combine harvester operators, water management advocates, supermarket egg producers, Kenyan bean growers, farm shop owners, Rastafarian delivery drivers, award-winning viticulturists, sourdough bakers, societal outcasts, fodder fiends and passionate goat ladies. I have heard the voices and seen the faces at the core of the UK's sustainable agriculture movement.

I have seen mycorrhiza growing in fields of wheat, the concoction of compost teas, rye taller than my head, pigs rollicking in herbal leys, fresh loaves leaving ovens, calves being castrated (not a fun one), apricots growing in the UK, 30-year-old agroforestry, a 200-acre field of wheat, the absolute beauty of fully-flowering fields of cover crops, the struggles of pest control, vibrant veg boxes and rewilded corners.

I have listened to farmers as they have shared their successes and woes, their dreams and fears with me. I have experienced a veritable smorgasbord of what the UK's agricultural sector has to offer, and without the misfortunes and loss of my Terra Madre community, I would not have gained all of this.

By William John Farr

Community 05

TENUTA DI SPANNOCCHIA & ORTOMANGIONE ITALY

Tenuta di Spannocchia is an agrotourism farm with several productions while Ortomangione is a CSA farm from a cooperative (MondoMangione) that focuses on vegetable production. These farms are located 20 km away from Siena, Tuscany, Central Italy.

The lines of businesses at Spannocchia are agrotourism villa and houses, wine and olive oil production, vegetable and honey production, animal production and wood production. The forest of Spannocchia is 1100 acres and consists of several trees like pine, oak, and chestnut. They raise the heritage pig breed of Cinta Senese in the forest. The products are used in the Agrotourism and sold online. The vegetables are sold directely to the guests; wine and olive oil are exported to U.S.; animal products are sold locally. Spannocchia has been certified organic since 1994 and they have sustainability embedded within their value.

Ortomangione is a project by a cooperative, MondoMangione, which focuses on vegetable production. The founder of OrtoMangione had an idea of utilizing public space to build a community around Siena. Therefore they built it with the intention of developing community through CSA and food production. The garden of OrtoMangione is 1,5 hectares with 12 beds of plots that are utilized to cultivate vegetables and flowers. As a CSA farm, OrtoMangione only sells the vegetables through subscription of boxes that are delivered to the cooperative's shops to be picked-up by their members.

By John Wanyu & Kintan Kamilia

Community 06
VALDIBELLA COOPERATIVE SICILY

It has been since 1998 that Valdibella Cooperative is working in Camporeale (Italy, PA) to create and spread an alternative to the current way of seeing and perceiving the food system in Sicily.

"We knew from the beginning that the only way to succeed in the project was the union between different farmers. Alone, each would have done little. Or nothing. And every day this belief is confirmed even in small things."
Massimilano Solano, president of the cooperative

From its foundation, the cooperative has tried to unhinge cultural stratifications that in recent centuries have dominated Sicilian territory: that is to restore dignity to farmers, promoting concrete actions against commercial and labor exploitation and fielding agricultural methods organic that focus on biodiversity and native crops. Every producer's land is grown organically on a small plot of land using agroecological practices such as intercropping, agroforestry, mulching, cover cropping, water storage, and natural pest control management. Promoting the circular economy, Valdibella has two main centres to gather and process the raw materials coming from the producers: a wine cellar located in the headquarters in Camporeale and a processing area in Fargione, a village close to Camporeale. Through the wine production and the processing of all the fruits and vegetables for the creation of pates, creams, pasta, oils, juices etc Valdibella adds value to producers' work and thus is able to connect them to agroecology markets that respect the nature and the people of Camporeale.
Together with the NoE association, Valdibella Cooperative is the first and only Community of Change promoted by Slow Food, born to give a new life to almost five hectares of land taken back from mafia with the creation of a food forest, in Partinico (Italy, PA). The project has the aim to show how social and environmental justices can coexist by using agroecological practices (polyculture, intercropping, bio lakes etc) and by working together as a community, including also people with social or physical disadvantages.

By Cristina Laurenti

Community 07

PODERE IL CASALE ITALY

At Podere il Casale, Jane spent most of her time shepherding and milking sheep and goats (not to mention cleaning up after them). She also worked in the caseificio, assisting in the making of various cheeses.

Podere il Casale is a diversified organic 60-hectare farm located in the UNESCO world heritage site the Val d'Orcia in southern Tuscany. The owners, Ulisse and Sandra, came from Zurich in 1991 with the dream of being fully self-sufficient, armed with no agricultural experience. They have grown the farm into an agricultural utopia producing raw-milk sheep and goat cheeses, vegetables, olive oil, honey, and grain products. Initially there was no tourism, but over the years they have embraced diversification, opening a renowned farm-to-table restaurant and offering various cooking classes and tours. They have sought to learn and perpetuate the local traditions with their various raw-milk pecorino cheeses alongside more diversely influenced offerings. At the heart of the farm's values are animal welfare, biodiversity, and sustainability. The garden, that feeds their family, staff, and restaurant and CSA clients, follows biodynamic principles in an effort to build healthy soil and respect the local ecosystem. They take pride in their farm being a place of learning and have developed a strong rapport with UNISG, welcoming many interns and employing alumni.

By Jane Elizabeth Mangione

Community 08

NGURUDOTO FOOD TANZANIA

Ngurudoto Food Community is an agrarian community situated in northern Tanzania Arusha region. Addressing devastating climate change conditions, gender inequalities plaguing rural women in Tanzania, and lack of interventions from the governmental and NGOs conventional adaptation programs, the Ngurudoto rural community woman assembled themselves to forge pathways for adaptation and mitigation adverse effects of climate change on their livelihood.

The community adopted the traditional farming system which relies on the recycling available materials at their farm yards. Among the common practices deployed include, intercropping and crop diversification where drought and flood tolerant crops are planted, use of mulching, cover crops, legumes and animal manure to maintain soil fertility and agroforestry. With zero dependency of external agro inputs, the community claimed to be food secured and economically empowered. The income generated from the farms enable them to send their children to schools, buy their needs and start up small businesses.

By Reguli Damas Marandu

Community 09

GAEC HARANEA BASQUE COUNTRY FRANCE

GAEC Haranea is a collectively owned farm in Ipparalde, the Basque Country, France. The farm is part of many associations including Porc Kintoa Basque and IDOKI Agriculture paysanne. The main products on the farm are pork, peppers and chickens.

The farm is co-owned by Christian Aguerre, Gilles Billaud, and Martine Bouquerot. The farm produces porc kintoa Basque (pigs), piment d'Espelette (peppers), grand roux maíz (corn), chickens, and eggs from hens. The farm also produces apples that it turns into juice and cider and plums for marmalades for home consumption, sharing with friends, and ecosystem services. The farmers describe the current state of the farm as an equilibrium with no goals to drastically expand production or farm size. The farm has about 650 chickens for meat. The farm has about 250 hens of three different breeds for eggs that are raised until they are two years old when they stop laying eggs. The pigs are raised until they are 18-24 months, all outside in semi-forested fields. The farm transforms the pigs into many different products including pâte, blood sausage, confit sausage, hoof terrine, head terrine, stock, chinchón, lard, chops, steaks, roasts, ham (xingar), cured belly (artekia), cured neck (matraila), and soap.

Since the farm's inception, it has been associated with ELB, a LVC member organization. Using local and diverse breeds was always a priority of the farm. Haranea is a founding member of Saskia, a local farm delivery service that brings a mixture of four farms' produce to customers in the area. They participate in Slow Food Terra Madre and are involved in four different presidia (porc kintoa basque, Basque green seignanx pepper, gran roux maiz, and itxassou cherries).

The farm also sells products through three AMAPs that are organized by local consumers. Haranea also sells products through a stall in the market of Saint-Jean-de-Luz with 12 other Idoki farmers and at a store in Ezpeleta with 12 different local farmers.

By Ari Chanan Moskowitz

Community 10

LAUGHING CROW ORGANICS BC CANADA

Laughing Crow Organics (LCO) is a ten-acre organic vegetable and flower farm in Pemberton, BC Canada. Currently in their ninth year of production and run by co-owners Kerry McCann and Andrew Budgell.

LCO's season is dictated by the unique climate and geography of Pemberton valley, with blazing hot summers, snow filled winters, and 8,000 ft mountains surrounding the valley. Their growing season stretches from April until the end of October. In addition to their organic farm, they participate in various other short food supply chains (SFSC), such as: Community Supported Agriculture (CSA), roadside farm stand, farmers markets, Slow Food Cycle, Pemberton Farm Tour, Grand Majestic Pumpkin Patch (U-Pick) and Pemberton Sunflower Maze.

Their ten-acre farm is leased land from the adjacent farm, Across the Creek Organics (ATC), who are one of the two farms in Pemberton that grow organic virus and disease free seed potatoes. The Millers, who are a fourth generation potato farming family, have owned and operated ATC since 1895, and have now expanded into brewing, opening a brewery - The Beer Farmers, in 2018. ATC and LCO are intrinsically linked, sharing machinery, land and friendship.

Andrew and Kerry are passionate about bringing great tasting organic produce to their community and the Sea-to-Sky corridor that stretches from Pemberton BC to Squamish BC, a distance of 91km. LCO's mission is to work at a job that gives back to their beloved community, enables them to work for themselves, and will lighten the burden for future generations - and they are doing just that.

By Severin Rolland-Berge

Community 11

VINEYARDS AND WINEGROWERS SWITZERLAND

I didn't go to a "community", but went from vineyard to vineyard to interview Swiss winegrowers.

Switzerland is a small country, surrounded by two giants of the world of wine, France and Italy. Its vineyards total only 14'696 ha. The "biggest" wine cantons are Valais, rich in local varieties, like Petite Arvine, Vaud, birth place of chasselas, and finally Geneva. The other wine regions are Ticino, obsessed by Merlot, Jura-Trois lac and the German-speaking part, neglected for years, yet finding a renaissance with climate change, from which it is benefiting.

Swiss people are proud to say that they have many grape varieties (252 varieties) in such a small vineyard. Yet, it is hiding the fact that three quarters of the Swiss vineyard is covered by only five varieties: Pinot Noir (29%), Chasselas (26%), Gamay (9%), Merlot (8%) and Müller-Thurgau (3%), among which only Chasselas is a local variety. Switzerland Agricultural Research Centre has also created (and is still trying to create) new varieties that promise to be more resilient to climate change and resistant to pests.

Switzerland's vineyards are influenced by the Alpes, which created different soils, climates, slopes, altitude (the highest are at 1'110 meters), and protected some vineyards from cold and humid winds or rain. Other climate influencers in Switzerland are the lakes (Lac Léman, Neuchâtel, Murten, Biel, Zurich...), and the rivers (Rhône, Rhine...).

Some of the main challenges facing Swiss wines, apart from competition from abroad, are the passage to more environmentally friendly form of viticulture and climate change, that benefis, to a certain extent, to German Speaking Switzerland and Jura-Trois Lac region, but is already problematic in Ticino and Valais.

By Hélène Natacha Taleb

OUR 14 STUDENTS AND THEIR RESEARCH

Alessandro Bono

I am Alessandro Bono from Italy. Last year, I started farming. I love biodiversity, it has pushed me to apply for the Master in Agroecology and Food Sovereignty (MAFS). I want to support the transition to a sustainable food system.

Jasmine Yasemin Sarp

I'm a steward of living things, joyfully digging into food activism. As a student of farmers and mentors in the Americas, I chose to continue cultivating my relationship with seed and soil through the MAFS program and in collaboration with Melitakes.

Maria Braun

After growing up in Germany, I started a career in hospitality and worked in many different countries. I was then looking for a more meaningful direction and decided to change and become a part of the movement to help transform our current food system.

Penelope Spica

I was drawn to UNISG due to my passion for food and baking, as well as the desire to participate in positive change in the food system. I am interested in traditional cultivation systems, agroforestry, and wild and foraged foods.

Samantha de Lucena Caldato

I was born and raised in Brazil, living in LA, CA for 20 years. I work with art, music and urban gardening with a focus on regenerative and cooperative ways to create life experiences through music, plant-based food and diverse knowledge-sharing.

William John Farr

I am British, from a farming family, studied archaeology and classics at undergraduate level, have founded two food businesses (pasta and chocolate), and fell in love with agroecology and food sovereignty on a research trip to Tanzania in 2018!

John Wanyu

I grew up on the soars of Lake Victoria being a farmer since my childhood. I coordinated Slow Food presidia in Uganda. I am very delighted to be a part of the MAFS programme looking forward to putting what I have learned into practice.

Kintan Kamilia

I am Indonesian with a background in food science and technology. My interest in food has shifted as I am very interested in looking at food as not merely a commodity to eat but also a thing that has several layers in which could affect civilization.

Cristina Laurenti

I am Cristina Laurenti and I am a nutritionist.
I started this master right after my graduation because I felt I was missing something from my previous studies. I wanted to go further with the limited concept of modern nutrition into the sustainable diets and food sovereignty approach.

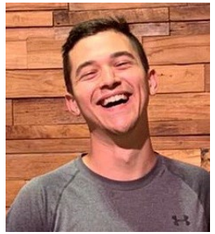
Jane Elizabeth Mangione

I am an American living in Italy for years. Work as an active travel guide put me in touch with local and traditional methods of growing, transforming, and enjoying food. I hope to work in sustainable tourism and agricultural education.

4.0
OUR 14 STUDENTS AND THEIR RESEARCH
UNISG | MAFS

Reguli Damas Marandu

I have experience in agriculture, sustainable livelihoods and natural resources projects and am determined to use these skills to solve global challenges (climate change, food insecurity, deforestation and gender inequalities). I'm currently Slow Food national coordinator for Tanzania.

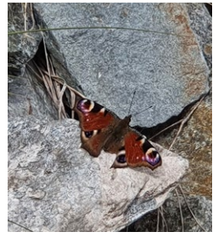


Ari Chanan Moskowitz

I am a fermentation obsessive and enjoy learning about curing, drying, salting, and preserving processes from around the world. Before starting the MAFS program, I worked as a technology consultant specializing in data and WOOFed in Japan.

Severin Rolland-Berge

Hello - my name is Severin Rolland-Berge and I am from North Vancouver, BC, Canada. I have worked in the retail, wholesale and quality control of organic produce since 2012. My future plans are to work in the organic produce sector in BC.



Hélène Natacha Taleb

I studied Law at the University of Geneva and decided to attend MAFS for three main reasons: seed sovereignty, biodiversity and rewilding. I finished writing about wine for different reasons that are too long to explain.

AGROECOLOGY SUPPORTING RURAL TERRACES AREAS THROUGH ECOTOURISM

THE CASE STUDY OF ASTEROUSIA REGION IN GREECE

By Alessandro Bono

The research project in Melitakes Social Cooperative is focused on agroecological practices applied to terraces. We have been interested in investigating ecological services and agroecological practices provided by terraces in order to understand synergies between semi-natural and natural landscapes.

The objective is to understand if agroecology applied on terraces can support territorial development and foster local networks communities in the Asterousia Region, thanks to ecotourism that allow financial flow creating a circular economy in the region. In fact, Melitakes social cooperative plays an important role in the Asterousia region as a connector between agroecology and territorial development. Terraces are important because they are hydraulic agrarian systems and traditional farming practices. The final goal is to find alternative solutions for decreasing the rural abandoned.

Results of research

We have been elaborating five research questions and presenting some results. Methods that we have been adopting in order to answer are: focus group, semi-structured interviews, assessing the water system in Listaros farm and soil analysis. Methods applied are qualitative and quantitative.

What are the Ecological Services provided by terraces in Asterousia?
Terraces are very important in order to host local biodiversity as well as creating microclimate and foster diversified food systems. We have been interviewing stakeholder with semi-structured interviews. Agroecological practices adopted have been supporting all farming stages inside Melitakes farm. From the very beginning with mulching the soil to the very end by spring microorganism.

What is the role of agro ecotourism in the reintroduction of terraces in Asterousia?
Ecotourism nowadays can foster local economies, in fact we saw that it represents a valid alternative for Melitakes to foster territorial development and organic farming.

How to develop the Meltiakes network for ecotourism?
Their network can be also used to build up collaboration including ecotourism strategies and at the same time fostering local farms.

The terraces maintain the water cycle and restore the landscape?
This is connected with the RQ1 and RQ2. We have been assessing that terraces increase the water drainage and decrease soil erosion. In rural areas such as Listaros (Crete) this is a fundamental practice for sustainable farming.

SEED KEEPERS AS GUIDES OF REGENERATION:

EXPLORING THE RELATIONSHIPS BETWEEN SEED STEWARDS AND CULTURAL ECOLOGY IN MODERN-DAY CRETE, GREECE

By Jasmine Yasemin Sarp

Stewardship of seed is increasingly important as rising temperatures, drought, and poisoned waters and soil affect the cultivation of food. Traditional seed offers identity, resilience and a social network to the farmers that choose its wisdom.

Melitakes shows us the many ways in which seed can serve a community. Seed grows tasty food for the taverna, it brings people together for celebration, it provides life for environmental restoration projects, it is planted by small hands in a school garden, it is a life force that is given careful attention to ensure its preservation and its active use. The existence of such stewardship in this region of the Mediterranean, known for a richness of biodiversity, can help us to understand the potential that seed systems hold to regenerate communities, and what challenges they may face. To this end, this research inquires: What is the relationship between seed stewards and cultural ecology in Crete? How does participatory seed exchange support resilience? And how can seed growers, savers, agronomists and institutions better collaborate to rebuild a base of sharable cultivation knowledge?

Results of research

The findings reflect the beautiful forms of knowledge held by the community. There is a deep emotional connection and sense of identity provided by traditional seeds, and organic cultivation practices come hand in hand. Resilience was found in the qualities of seeds like drought resistance and strength through biodiversity, and through the social network which provides knowledge, support, and a sense of security. Lastly, there is a greater need for acknowledgment of farmers as shapers of our ecological future, and better non-commercial systems to support local seed and agroecological growing methods. This journey with the community was a precious experience that culminated in deep relationships and my own personal confidence in participatory processes. I am so inspired by the dedication, love, and care that each person pours into their work, and so grateful for what they shared with me.

UNDERSTANDING THE ROLE OF EDUCATIONAL FARMS IN THE AGROECOLOGICAL TRANSITION

By Maria Braun

The big theme of my research is education in the context of the agroecological transition and how educational farms, mostly independently of governments or institutions, contribute to this shift.

As farmers are key agricultural players and custodians of local knowledge and practices, it seems crucial to also use the farm environment as a centre for agroecological learning, training and sharing knowledge. Analysing La Junquera and additional case studies, this study aimed to highlight the impact of on-farm educational activities on farmers and university students and understanding the role of those farms in supporting the transition to agroecological systems. It further aimed to identify motivations, benefits and obstacles for farmers to set-up and successfully operate educational farms. Another goal was to inform farmers as well relevant decision makers about the requirements and solutions needed to convert educational farms into powerful drivers and lighthouses towards a changing food and agricultural system.

Results of research

Educational farms, founded with idealistic motives, share many common characteristics. They help create beneficial outcomes not only for the wider community but also for the farmer itself. While not without challenges in operational, financial and logistical aspects, hosting training activities can enrich farmers' lives and positively impact the spread of agroecology on many different levels. Sharing practical knowledge and inspiration has proven to encourage farmers to implement agroecological principles on their own farms. Many Students have transformative experiences and gain a deeper understanding of the farmers perspective and the complexity of the situation. Major challenges that were identified include the current lack of support for those farms from governmental and institutional sides. A pressing task for the future will be to find ways for didactic farms to become financially viable and to receive support for logistical and organizational tasks without losing their independence from corporate and commercial interests.

DIVERSITY FROM FOREST TO FORK:

THE POTENTIAL OF ACORNS FOR HUMAN CONSUMPTION

By Penelope Spica

The primary themes of my thesis include traditional knowledge, agroforestry, regeneration, biodiversity, wild foods, gluten-free baking, food sovereignty, and biocultural diversity.

The objectives of my thesis are the following: (1) to discuss the importance of the oak tree and the biodiversity it brings to agroforestry systems, (2) to present traditional knowledge of acorn use for human consumption, and (3) to explore the potential of acorns for improving dietary diversity and food sovereignty. With this research I plan to shed light on the environmental, cultural, and economic benefits of agroforestry systems. In turn I hope this research draws attention to the potential benefits of acorn consumption. Acorns have many past and present applications that could be explored for the creation of gluten-free flour, nutrient-rich oil, and other products. A recognition of the potential of acorns as a wild food source could also spark a much needed oak tree regeneration.

Results of research

My research discusses the oak tree and the use of acorns in the human diet. The methods used include bibliography research, agroforestry practice, and acorn flour experimentation. My agroforestry experience influenced my development of five cookie samples incorporating flour "from the forest," namely acorn flour, chestnut flour, and almond flour. I performed a sensory analysis which resulted in high average liking scores surpassing 7 on a scale of 1 to 9 for all samples. I conclude that acorns have the potential to improve dietary diversity and food sovereignty.

My action-research helped me learn about agroforestry and the important role of trees in agriculture. I developed my ability to work in agroforestry by planting and pruning trees as well as building nests of organic matter around saplings. I also developed my baking skills by working with an unfamiliar "wild" food product.

SOIL AS AN INTERFACE FOR DIALOGUE IN AGROECOLOGY

By Samantha de Lucena Caldato

The themes of this thesis include dialogue, soil, human-soil relationships, and hummusities.

The purpose of this thesis is to explore soil as an interface for dialogue. Soil here is not understood as a purely biological system, but rather as a medium that results from human-soil relationships. The work investigates how the daily practices of care on soil by humans can inform the humanities. Soil quality as a marker of what many scholars have called The Anthropocene. How is soil an interface for cultural practices and how does that translate into culture? Therefore, the work relies on the productivity of observing human-soil relations as a research approach for a qualitative investigation into the possibilities of agroecology as a vector for food and cultural sovereignty.

Results of research

Montado do Freixo do Meio was a fertile terrain for researching the question: How is soil an interface for cultural practices? How can agroecology be a bridge between culture and cosmologies through soil liveness? To obtain concrete data around this question I interviewed thirteen members of the farm community, worked with literature review, and had 3 months of participatory observation. One pattern I observed was the perception of "poor soil" as an immutable reality not related to human activities. Furthermore, relating what I observed in the field with my literature review of Agroecology and eco-feminism, I conclude that Agroecological practices could transform the perception of soil and regenerate human soil relationships.

On the farm I learned about cooperation and collaboration through agroforestry and human relationships.

PARTICIPATORY RESEARCH REGARDING PERCEPTIONS AND VIEWS ON AGROECOLOGY, REGENERATIVE AND SUSTAINABLE AGRICULTURE:

THE CASE OF FARMERS IN NORTHAMPTONSHIRE, UK

By William John Farr

Farmers in the UK are increasingly being apportioned blame for what feels like almost all the planet's current crises. But surely farmers are not inherently evil? Where is their voice on this matter? What do they think sustainable farming looks like?
The objective of this thesis was to answer these three main research questions:

- What do farmers think sustainable agriculture is?
- Are they aware of agroecology and regenerative agriculture, and know What they are?
- Is there a desire amongst farmers to transition to more farming practices?

The confines of the research are the county of Northamptonshire. All of the 9 farmers interviewed called it their home. I chose this county because it is my home, as well as a part of the country notably lacking in agroecological farms, agricultural innovation or relevant scientific literature. The ultimate goal of the paper is to establish how Northamptonshire's farmers can move towards more sustainable farming practices. What do the farmers feel is stopping them? Do these farmers actually understand sustainability? Where can more work be done? These are the matters at hand.

Results of research

As expected, not all farmers are evil and want to decimate the environment for their financial gain, but they are conservative. Indeed, conservatism is a large obstacle to any sustainable transition. Many farmers simply do not have the means to undertake any form of major change for fear of economic loss. The stakes are too high. The message was repeated over and over: "we are open to change, we want to save the environment, but we cannot afford to." These farmers need blueprints to follow; blueprints relevant to them geographically, economically and socially. They need guarantee of safe passage!
Meanwhile, this process has changed me. I end this course with a new set of personal principles and beliefs. I now believe that – unlike before – agroecology is the means and food sovereignty is the mentality by which the world can transform its current trajectory. Everything starts here.

ON BEING FOOD WISE

A CASE STUDY IN TENUTA DI SPANNOCCHIA AGRITOURISM IN TUSCANY, ITALY

By John Wanyu

Application of Continuous Cover Forestry (CCF) to anchor agroecological farms in the changing climate.

This research is aimed at discussing the effects of CCF on the survival of the Spannocchia agroecological farm within the changing climate. It identifies tree-harvesting practices that restore and maintain the immunity of this agroecological farm to climate change. Finally, it creates a source of knowledge for the responsible tree harvesting operations using methods and techniques that allow for less to no environmental and social disturbances.

Results of research

Spannocchia has a 20 years tree-harvesting plan, which enables it to attain forestry sustainably.
There is a great volume of tree biodiversity at Spannocchia farm.
The agroecological system at Spannocchia is Agro-sylvo-pastoral.
The farm has two main uses for trees: Fuelwood and Fodder.
Application of CCF has positively resulted into:
Reliable microclimate suitable for organic Farming.
Soil conservation, thanks to the forest litter for reproducing microorganisms.
Mineral cycling by trees to enrich the organic Gardens.
Conservation of Biodiversity via the practice of Selection cutting.
Guarantee of fodder and pasture year round for animals.
Crossbreeding of farmed crops with wild varieties hence new plant strains that are more adapted to climatic conditions at the farm and resistant to diseases and pest attacks.
Protection of pollinators. (Bats, birds, rodents, reptiles, wasps, butterflies, months, beetles, ants, flies, bees).

EXPLORING ACTORS' EXPERIENCES AND THE CHARACTERISTICS OF COMMUNITY SUPPORTED AGRICULTURE

CASE STUDY OF TENUTA DI SPANNOCCHIA AND ORTOMANGIONE IN ITALY

By Kintan Kamilia

As an alternative from the current food system, Community Supported Agriculture (CSA) emerges as the response to the exhausting and fragile current food system therefore it aims to build a new relationship between consumers and producers.

During the pandemic of COVID-19, coming back to local consumption and the sense of being in a community perspective has been increasing therefore it led farmers to branch-out strategy and even pivots from their usual approach to the consumer. The objective of the research is to investigate the motivations of actors involved in CSA and analyse the characteristics of CSA in two newly-built and different CSA-model farms according to a framework by Henderson and Feagan (2009). The instrumental, functional and collaborative characteristic classifies the relationship between the actors in CSA and their presence within the current food system. In the case study of two farms in Siena, Central Italy, focused ethnography was applied with participatory interviews of the farmers, participatory observation of the operation on the farm and followed by a survey to the members/consumers.

Results of research

Tenuta di Spannocchia and OrtoMangione are managing an alternative of food supply around Siena based on several principles such as using environmentally friendly practices, providing organic and healthy food, building community with knowledge exchange, and allowing people to support local agriculture and resource management that are agreed upon by both actors although in different degrees of importance. Fluctuation of support and commitment from CSA actors in different aspects shows how the relationship is dynamic therefore it needs to be managed according to the strengths and weaknesses of each aspect instead of hastily place it in one characteristic. The ideal situation of CSA being a community investment and support could easily shift into a mere alternative transaction of food supply therefore it is important to search on the underlying value behind the involvement of each CSA actor.

THE INTERCONNECTION BETWEEN SUSTAINABLE DIETS, AGROECOLOGY AND FOOD SOVEREIGNTY

ANALYSIS OF TWO CASE STUDIES: VALDIBELLA COOPERATIVE IN CAMPOREALE, ITALY AND BIOVERSITY INTERNATIONAL'S PROJECT IN VIHIGA COUNTY, KENYA

By Cristina Laurenti

In my thesis I have analysed two case studies: one more empirically dealing with a Slow Food community in which I have spent three months as an intern (Valdibella) and a Bioversity International's project called "Improving access to and benefits from a wealth of diverse seeds to support on-farm biodiversity for healthy people in resilient landscapes".
The general scope of this thesis is to answer the following research question: Can agroecology improve the dietary quality of women with a particular focus on dietary diversity?
In this paper it will be described and analysed the raw database of the Bioversity International's endline survey to explore which are the main changes after their intervention. Each group of indicators has been elaborated differently based on the different purpose of the statistical analysis and according to each RQ they were supposed to answer.

Results of research

All the outcomes from the statistical analysis of the Bioversity International's endline survey are positive: the dietary diversity score (DDS) in the intervention group is increased and it reached the minimum score established by FAO to evaluate a diet of a woman varied enough (5 out of 10), the distribution of the macronutrients is improved, the intake of the micronutrients is grown as well as the HFIAS score.
Among the numerous lessons I have acquired during my internship in Valdibella one in particular has really influenced my perception of seeing agroecology. Until my arrival there I had the wrong idea that the role of agroecology was mainly in agriculture, but agroecology means much more. It is a philosophy of living that influences the food system until when the food arrives on the table of the households, but after this thesis I would add that agroecology influences end when our bodies absorb the nutrients of its product.

RAW PASSION:

RAW-MILK PECORINO PRODUCERS IN SOUTHERN TUSCANY, ITALY

By Jane Elizabeth Mangione

As our food system becomes more industrialized and homogenized, it is increasingly important to identify, understand, and support small producers and traditional products. The intention is to understand how and why these producers persist.
As raw milk pecorino producers in southern Tuscany have become fewer and further between, I examined (1) how these producers narrate and define themselves, their product(s), and their relationship to terroir; (2) the common motivations, goals, and challenges; (3) how they do (or don't) diversify, specifically in relation to agritourism; (4) their relationships to denominations, certifications, and entities, and (5) how these producers fit into a local food system producing a sustainably produced product, in contrast to large-scale industrial operations and products.

Results of research

These producers persist, despite great challenges, due to personal passions and their desires to tell the stories of their land and their families. Each wheel of pecorino is truly unique due to the animals, what they eat, and the different sets of hands that shape it. These cheeses can absolutely not be replicated by someone else in another place - it is the ultimate expression of terroir. Commonly these producers have struggled with bureaucracy and funding - noting that you can't be truly committed to being a shepherd and cheesemaker and simultaneously committed to commercialization.
They have all turned to various forms of diversification, but mostly connected to tourism. These producers have a common distaste for the Protected Denomination of Origin Pecorino Toscano, refusing to use the name, claiming it is a standardized, industrial product, despite the fact that it is meant to protect products associated with a specific territory.

AGROECOLOGY AS A MEAN TO INCREASE GENDER INCLUSION IN AGRICULTURE AND WOMEN'S RESILIENCE TO CLIMATE CHANGE

A CASE STUDY OF NGURUDOTO FOOD COMMUNITY IN TANZANIA

By Reguli Damas Marandu

Following the changing climate and increasing gender inequalities in agriculture, women participation in the sector has been deprived, the high cost of agro input make it impossible for rural women to fully participated in agriculture. Given the circumstances that women in rural Tanzania are the one responsible to ensure food security and well being of the family and agriculture being the main livelihood, they are more exposed to climate change effects. As women continued to be more isolated, their access to productive resources such as information, finance, extension and business development services prone them to be more vulnerable.
This case study of Ngurudoto Food Community examined and observed the agroecological practices adopted by women at Ngurudoto village and brought new insights as point of reflections and debates in issues related to climate change, gender inequalities, food security and sustainability.For the past decades resources have been mobilized to support convectional or commercial agriculture as believed to be the best solution to reduce hunger and poverty in Tanzania. Today millions of people still experience poverty and food insecurity environmental degradation is also concern challenge. This study provided alternative options to solve these challenges as demonstrated by Ngurudoto Food Community.

Results of research

With three months of full involvement with the community I used the five competences of action research to study the community and collect important information. I participated in the day to day community activities, made observations of events and practices, visioning and reflecting with the community and engaging them in dialogues.

Research data collection tools such as questionnaires, observation, key informant interviews, focus group discussions were used to collect quantitative and qualitative data. A spade test was also deployed to test the status of the soil.

The preliminary findings of the study confirmed the relevance of agroecological practices in increasing women empowerment in agriculture by reducing inputs costs, reducing climate vulnerabilities through crop diversification, increasing food security and protecting soil and environment. However the study also observed and brought in attention some limitations in information and lack of extension and business development services.

FERMENTING COMMUNITY – XINGAR, MATRAILA, AND ARTEKIA:

PORK FERMENTATION AT GAEC HARANEA IN ITSASU, PAYS BASQUE

By Ari Chanan Moskowitz

This paper adds to the field of agroecology by examining how three pork ferments at GAEC Haranea farm, xingar (ham), matraila (guanciale), and artekia (pancetta) contributes to food sovereignty in a case study in the Northern Basque Country (Iparralde). The thesis explores definitions of fermentation from science, etymology, and the community itself as well as definitions of food sovereignty from multiple perspectives. Fermentation and food sovereignty are the main research themes while notions of borders, membranes, autonomy, diversity, and preservation recur throughout. The objectives of the thesis are to identify how the processes of fermentation give power to small scale farmers.

Results of research

These pork ferments contribute to biocultural diversity at many levels and scales and contribute to resilient autonomous local food systems which are preconditions for food sovereignty. I conclude that fermentation should be included as an agroecological practice to both expand agroecological practices beyond agronomy and to push fermentation research, which has been largely centered on scientific microbiological processes and food technology, to factor in the cultural context of fermentation. I conclude that fermentation is an important but not a necessary nor sufficient condition for creating food sovereign communities because the relationship between fermentation and food sovereignty is contextual to local cultures and ecologies.

Collaborating with Haranea was an expectedly life changing experience in unexpected ways. I felt inspired by the layers of community around ecologically sustainable and culturally rooted local food systems.

BIOREGIONAL AGRICULTURE AND SHORT FOOD SUPPLY CHAINS IN CANADA

By Severin Rolland-Berge

The research conducted at Laughing Crow Organics (LOC) was mainly focused around their CSA and CSA members, as well as working with the two owners, farm crew and participating in the day-to-day running of this ten-acre organic vegetable and flower farm.

For the duration of the case study at LCO, the uniqueness of the Pacific Northwest agricultural sector was apparent. From the history of farming in Pemberton - they are well known for multigenerational farming of virus and disease free seed potatoes, to the tight knit community of organic farmers, to the active and enthusiastic CSA members. Engaging in short food supply chains (SFSCs) within this bioregion of Southwest British Columbia (SWBC) has the ability to connect CSA members to their sense of place, food grown around them, and connect to their surrounding community.

To further understand the reasoning and intentions of LCO's CSA members, a survey was created and sent out to all 239 CSA of LCO's members at the end of May in 2021. There were thirteen questions, consisting of yes and no questions, multiple choice, and the last two questions were short answer.

Results of research

The response rate from the LCO CSA members survey was 50.2%, and overall, with some variation, agreed with my research question that 'yes' engaging in SFSCs within one's bioregion strengthens sense of place,re-establishes the foodshed and deepens community connection. Interestingly, even though CSA has the word community in it, the LCO CSA survey revealed that the members are more connected to their bioregion and foodshed rather than the social and communal aspects during the CSA season. The availability of fresh organic produce is of most importance to these CSA members.
Throughout this experience, reconnection to place, food and people was central in all aspects. I feel that throughout this research I have become more connected to the grassroots movement of young organic farmers that is taking hold in this province.

THE ROLE OF TERROIR AND WINE IN FOOD SOVEREIGNTY AND AGROECOLOGY:

A SWISS CASE STUDY

By Hélène Natacha Taleb

My aim was to understand how the notion of terroir was understood by Swiss winegrowers, if they believed in a link between agroecological methods, food sovereignty and terroir and if they consider themselves as protesters against the actual food system.

Scientific literature on terroir is divided between "natural science", "zoning","sensory analysis"/"food science", "IP (Intellectual Property) right" perspectives of terroir, and a more cultural, anthropological, historical and ecological approach to terroir. These different perspectives are not hermetic boxes, but usually share aspects and criteria.

Looking at research papers and reading French books written by "terroir enthusiasts", one could have the strong impression that terroir was a way to promote food sovereignty, and thus agroecological practices, in vineyards and in the "wine system".

Results of research

Most winegrowers seemed uninterested by the cultural/historical connotation of the notion of terroir, and blasés about the age-old question "do we sense terroir in wine?". They understand the concept in its scientific or geographical/zoning aspect. There seems to be a more "biodynamic/organic/natural" wine movement, that is more based on environmental, market or spiritual considerations.

The results inspired two reflections: first, maybe "terroir believers" are not farmers, but tasters, consumers, and philosophers; winegrowers are pragmatic and do not have time for philosophical or poetical considerations. Secondly, maybe terroir researchers, and scholars like me, make much ado about nothing and spend time trying to answer questions that have no practical value (I am sure I did).

REFERENCES

- Armson, R. Growing Wings on the Way: Systems Thinking for Messy Situations; Triarchy Press: Devon, UK, 2011; pp. 57–77.
- Caldart, R. S. 2003. Movimento Sem Terra: lições de pedagogia. Curriculo sem fronteiras, 3(1), 50-59.
- Dewey, J. Experience & Education; Collier Books: New York, NY, USA, 1938.
- Dolci, D. Dal Trasmettere al Comunicare; Sonda Edizioni: Casale Monferrato (Al), Italy, 1988. (In Italian)
- Freire, P. Pedagogy of the Oppressed; Continuum: New York, NY, USA, 1970.
- Francis, C.; Lieblein, G.; Gliessman, S.; Breland, T.A.; Creamer, N.; Harwood, R.; Salomonsson, L.; Helenius, J.; Rickerl, D.; Salvador, R.; et al. Agroecology: The ecology of food systems. J. Sustain. Agric. 2003, 22, 99–118.
- Francis, C., Breland, T. A., Østergaard, E., Lieblein, G. and Morse, S. 2013. Phenomenon-based learning in agroecology: a prerequisite for transdisciplinarity and responsible action. Agroecology and Sustainable Food Systems, 37(1), 60-75.
- Francis, C. A.; Jensen, E. S.; Lieblein, G.; Breland, T. A. (2017 a) Agroecologist Education for Sustainable Development of Farming and Food Systems, Agronomy Journal, Vol. 109, 23-32.
- Francis, C.; Ostergaard, E.; Nicolaysen, A.M.; Breland, T.A.; Lieblein, G.; Morse, S. Learning through Involvement and Reflection in Agroecology. In Agroecology: A Transdisciplinary, Participatory and Action-Oriented Approach; Advances in Agroecology Series; Mendez, V.E., Bacon, C.M., Cohen, R., Gliessman, S.R., Eds.; CRC Press: Boca Raton, FL, USA; London, UK; New York, NY, USA, 2016; pp. 73–99.
- Francis, C. A.; Breland, T. A.; Lieblein, G.; Salomonsson, L.; Morse, S.; Nicolaysen, A. M. (2017 b) Learning Agroecological Practices as Components of Complex Farming Systems. In: Alexander Wezel (Ed.): Agroecological Practices for Sustainable Agriculture. Principles, Applications, and Making the Transition. New Jersey: World Scientific Publishing Europe Ltd., 445-461.
- Francis, C.; Salomonsson, L.; Lieblein, G.; Helenius, J. Serving multiple needs with rural landscapes and agricultural systems. In Agroecosystems Analysis; Rickerl, D., Madison, C.F., Eds.; American Society of Agronomy: Madison, WI, USA, 2004; pp. 147–167.
- Galt, R.E.; Parr, D.; Jagannath, J. Facilitating competency development in sustainable agriculture and food systems education: A self-assessment approach. Int. J. Agric. Sustain. 2013, 11, 69–88.
- Kloppenburg, J, Jr. 1991. Social Theory and the De/Reconstruction of Agricultural Science: Local Knowledge for an Alternative Agriculture. Rural Sociology , 56(4), 519-548.
- Kolb DA 1984 Experiential learning. A guide for learning and development
- Lewin, K. Resolving Social Conflicts; Harper: New York, NY, USA, 1948.
- McGill, I.; Beaty, L. Action Learning; Kogan Page: London, UK, 2001.
- Méndez, V. E., Bacon, C. M. and Cohen, R. 2013. Agroecology as a transdisciplinary, participatory, and action-oriented approach. Agroecology and Sustainable Food Systems, 37(1), 3-18.
- Mezirow, J. How critical reflection triggers transformative learning. In Fostering Critical Reflection in Adulthood. A Guide to Transformative and Emancipatory Learning; Jossey-Bass Publishers: San Francisco, CA, USA, 1990; pp. 1–21.
- Migliorini P, Lieblein G. Facilitating Transformation and Competence Development in Sustainable Agriculture University Education: An Experiential and Action Oriented Approach. SUSTAINABILITY, 2016 vol. 8(12), ISSN: 2071-1050, doi: 10.3390/su8121243
- Morin, E. 1992. From the concept of system to the paradigm of complexity. Journal of social and evolutionary systems,15(4), 371-385.
- Lieblein, G.; Østergaard, E.; Francis, C. Becoming an Agroecologist through Action Education, International Journal of Agricultural Sustainability, 2004 Vol. 2, No.3, 147-153.
- Lieblein, G.; Breland, T.A.; Francis, C.; Østergaard, E. Agroecology Education: Action-oriented Learning and Research. J. Agric. Educ. Ext. 2012, 18, 27–40.

Paola Migliorini

Assistant Professor in Agronomy and Crop Production at the University of Gastronomic Science, I'm Convenor of the Master in Agroecology and Food Sovereignty, Course Leader in Agroecology, Sustainable and Organic Agriculture, Supervisor of Educational Garden, scientific reference of 3 research H2020, 2 ERASMUS, 1 national and 1 regional ongoing projects, President of Agroecology Europe, Vice-President of IFOAM AgriBioMediterraneo and author of 100 technical and scientific publications.

Charlotte Prelorentzos

Charlotte Prelorentzos, is a research collaborator of the University of Gastronomic Sciences and how the revolution of the current food system - locally and globally - can be addressed and translated into action, drives her. She thinks there is a strong need for change in our societies. One of her starting points is rethinking classical knowledge transfer. Therefore she is interested in preparing students for challenges „outside" the universities by activating their creativity and supporting them in developing core competencies.

Geir Lieblein

Professor of agroecology at the Norwegian University of Life sciences (NMBU). I am Head of the Agroeology Group at NMBU, and program leader for the Agroecology MSc at NMBU, that lead the start-up of in 2000. I have been involved in educational development in Agroecology, in several countries in North and South America, Europe, Africa and Asia. I have won several educational awards. I am co-author of more than 140 original scientific, refereed articles or book chapters and conference proceedings.

Natalia Rastorgueva

Natalia Rastorgueva, PhD, is a research fellow of the NEXT-FOOD project at the University of Gastronomic Sciences, Pollenzo, Italy, since 2018. Her research focuses on both education in agri-food systems and agricultural economics. She is a member of the Italian Association of Agricultural and Applied Economy.


USCITA
EXIT
DEGLI STUDI DI SCIENZE GASTRONOMICHE

UNIVERSITÀ DEGLI STUDI DI SCIENZE GASTRONOMICHE
Piazza Vittorio Emanuele, 9
Località Pollenzo, 12042, Bra (CN) - Italia
P.IVA 03079180042

Università di Scienze Gastronomiche di Pollenzo

Next FOOD