



University of Gastronomic Sciences
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Foraging in South East England and North West Italy

A comparison between “Forager” and “Club Amici Valchiusella”

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To my family,

that has taught me the joy of living

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Figure 1 *Das Grosse Rasenstück*¹

Das Grosse Rasenstück (“Great Piece of Turf”), a master piece painted by Albrecht Dürer in 1503, is the “first truly naturalistic flower-painting in Europe”, while earlier illustration of plants were either decorative or functional, to provide description of medicinal plants.² The greatest merit of the painter is to have represented nature in its most realistic way, by reporting a “miniature ecosystem in which every component, from the damp mud at the base to the seeds on the point of flight, is connected”.³ Every single plant, ock's-foot, creeping bent, daisy, dandelion, greater plantain, hound's-tongue, meadow-grass and yarrow, is there in function of the others and the chaos of nature is instead a perfect interrelation of every single component.⁴

There could be no better way to describe the natural ecosystem.

¹ Dürer , A. (1503), *Das Grosse Rasenstück*, watercolour painting, Albertina Gallery, Vienna, Austria.

² Mabey, R. (2010) *Weeds. In Defence of Nature's Most Unloved Plant*. New York, HarperCollins Publisher, pp.57-59.

³ *Ibidem*

⁴ Encyclopedia of Art Education (2017), *Great Piece of Turf by Albrecht Durer*, viewed 13 November 2017, <<http://www.visual-arts-cork.com/famous-paintings/great-piece-of-turf.htm>>

1. INTRODUCTION

Have we ever thought how many edible herbs we step on when we walk in a woodland or in a meadow?

Food is in every angle of our planet: in every forest, land, meadow, cultivated field. Nowadays we are so attracted by what grows on the other part of the world that we do not even notice that we could find food in our domestic garden.

Richard Mabey, a natural history writer, writes in his book *Food for free*: “every single one of the world’s vegetable foods was once a wild plant. What we buy and eat today is nothing more special than the results of generations of plant-breeding experiment [...] as with the breeding of animals, the improvement of specific qualities like these is likely to lead to the deterioration of others”.⁵ Deterioration of taste is one of these.

Foraging is a way to reconnect with the territory in which you live through the search, the awareness of the season, the rhythm of nature, the picking and eating. Picking is an act of respect. It corresponds to getting a gift, with the difference that you take it yourself.

In the past centuries, society has always tended to separate nature and culture, wild and cultivated. Taking the example of weeds, they have always been defined in negative ways, for the fact that they limit the growth of cultivated plants. Farmers have worked everyday so hard to eradicate them and definition like “mistrusted intruder” or “plant in the wrong place” have contributed to design their unbearable presence.⁶

But have we ever tried to eat them? Haven’t we ever considered whether it was actually their place?

Weeds had chosen that place first because it was their niche, their perfect habitat and men introduced something nearby. So the term “weed” is nothing else than a simple label that people used to divide natural world in two separate fields: the cultivated organisms, that are managed and controlled, and the wild ones, that live in their territories following their own rules.⁷ But weeds are the clear demonstration that nature doesn’t accept any cultural constrictions, its power overcomes every limit.⁸

So couldn’t we just overcome this boundary and see all as a whole system, working in a cooperative way? Ralph Wald Emerson’s definition, “weed is a plant whose virtues have not yet been discovered”, describes well the unknown potential of many wild plants that are culturally

⁵ Mabey, R. (2012) *Food for free*. London, Collins.

⁶ Mabey, *Weeds. In Defence of Nature's Most Unloved Plant, op. cit.*, p. 5.

⁷ *Ibidem*

⁸ *Ibidem*, p. 21.

forgotten.⁹ Richard Mabey proposes the image of weeds as “human familiars”, underlining the “symbiotic relationship” we have always had with them (they were our first vegetables, our first dyes, our first medicine).¹⁰

Their potential is immense since they are free, accessible to everybody and highly adapted to the environment they are growing in.

FAO highlights the economic and health benefits which wild food diversity can provide to human population stating that “nutrition and biodiversity converge to a common path leading to food security and sustainable development” and that “wild species and intraspecies biodiversity have key roles in global nutrition security”.¹¹ Given the enormous problems related to food production and consumption that afflict the current century, attention must be focused on a more sustainable model of food provision. Species biodiversity preservation and wild food consumption could constitute a starting point for a change in our food system patterns.

However, we are now assisting in Europe to a trend reversal as far as wild food access is concerned: foraging has become a privilege of a few, strictly connected to top restaurants and high cuisine preparations, moving away from the everyday routine of people.

This research will thus analyze a way to spread wild food knowledge, with the help of two study cases, and propose a final solution for a more sustainable gastronomic system based on the free access of wild food.

Starting with an illustration of the main issues afflicting the modern food system (chapter 2) and an overview of wild food in Europe (chapter 3), I will then analyze the main patterns of the two study cases to understand the way in which wild food is dealt with and awareness of common people is raised (chapter 5), so that a possible solution to make wild food accessible to everybody can be provided (chapter 6).

⁹ *Ibidem*, p. 7.

¹⁰ Mabey, *Weeds. In Defence of Nature's Most Unloved Plant*, *op. cit.*, pp.11-12.

¹¹ FAO (2009) *Biodiversity and nutrition: a common path*. Nutrition and consumer protection division, p.2.

2. OBJECTIVES AND METHODS

2.1. Goals

The dissertation is focused on the analysis of wild food in Europe and on a possible way to increase and bring its consumption to everybody. Through the study of two different foraging platforms, *Forager* in England and *Club Amici Valchiusella* in Piedmont, distinct sides and patterns about modern ways of spreading wild food knowledge are analyzed.

The objective is to provide an inversion of the trend characterizing 21st century wild food consumption: understanding how to spread wild food knowledge, that means how to make people aware of what their territory offers so that they can freely access to it.

The final goal is to propose a solution for a sustainable model of gastronomy that can be applied in every context, in which every source of the territory is used without damaging its resilience.

2.2. Study cases

The field researches have helped me to understand the main problems and obstacles related to wild food consumption and to analyze the way foraging and wild food promotion is connected to people awareness and territory safeguard.

Starting from the common question, how to make wild food accessible to everybody, I decided to conduct a field research in two foraging platforms in Europe (one in England and one in Italy).

The first study case, *Forager*, has been chosen for several reasons: first of all it is a platform dedicated to wild food gathering for restaurant supply and it has been thus a way to dig into the phenomenon of the elitist consumption of foraging, secondly England is a good example of a region with such a high biodiversity on one side and people that completely lost the knowledge about wild food on the other side. In this way it has been possible to see how they recuperated the knowledge and how or whether they contributed to spread it.

The second study case, *Club Amici Valchiusella*, is instead a great example of an Italian foraging reality that puts education as its main mission and significantly helps the diffusion of wild food knowledge.

2.3. Methodology

My dissertation is a result of literary research, field study and personal analysis.

The literary research has been conducted through the help of books, borrowed from the library of the University of Gastronomic Sciences, and online articles or journals. Furthermore, official documents, laws, reports and internet websites have been consulted.

For the first study case, Forager, I adopted the participative observation method. This means that I worked with them for three weeks, by covering every task the activity involved and gathering all the plants they deal with. I was thereby able to observe the way they interact with nature (selective gather, sustainable approach, habitats preservation). I decided to create an herbarium of every plant gathered in the month of October, to show the great biodiversity and richness that can derive from a detailed knowledge of edible plants of the territory.

Further more, while working together, I constantly asked questions to the team members and I conducted a full interview with Ross Evans, sales responsible of the team, and many other small ones with local people living in the area.

For the second study case, Club Amici Valchiusella, I have done a one day visit and gathered information through a focused interview with Laura Lancerotto, the President of the Association, and Bruno Biava, one of the founders.

I have finally elaborated my deductions and conclusions by making a comparison of the two study cases and, on the basis of academic research (articles and essays), by proposing a possible solution to the question I had started with.

3. MODERN FOOD SYTEM AND BIODIVERSITY

3.1. Food system

Our food system presents many problems related to the way food is produced, distributed and consumed. Especially in these days, the challenge is getting tougher and tougher due to population growth, global and environmental change. According to *FAO* statistics, world population is likely to grow up to 9,1 billion by 2050 and food production will have to increase by 70% (from 2009 levels). Annual cereal production will have to increase to 3 billion tonnes and meat production will need to rise by over 200 million tonnes to reach 470 million tonnes.¹²

Malnutrition and starvation are on the agenda (*FAO* states that more than 1.02 billion people are undernourished¹³), as well as problems like obesity, diabetes and chronic diseases, due to the micronutrient malnutrition (also called *hidden hunger*) caused by a high refined sugar diet and high energy food consumption.¹⁴ According to estimations, 60 % of human calorie intake is provided by four species: wheat, rice, maize and sugar.¹⁵

A complete turnabout has to be made: food production and the ecological footprint need to be reduced in order to lower pressure on our natural resources, a dietary shift has to be adopted moving from starchy staples towards a fiber and micronutrients rich diets, and policy institutions have to shift their focus on biodiversity and natural resources as a way to improve food security.¹⁶

3.2. Climate change

We assist everyday to climate change consequences, in form of extreme and dangerous events. According to the *IPCC (Intergovernmental Panel on Climate Change)*, “warming of the climate system is unequivocal, and since the 1950s, many of the observed, changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen”.¹⁷ Data are included to show the evidence of this issues: over the period 1880-2012 averaged combined land and ocean surface temperature has increased

¹² *FAO* (2009) How to feed the world in 2050, *High-Level Experts Forum*, Rome, pp. 2-7.

¹³ Barucha, Z., Pretty, J. (2010) The roles and values of wild foods in agricultural systems, *Philosophical transactions B*, 365(1554), p.2913.

¹⁴ Hickey, G.M., et al. (2016) Quantifying the economic contribution of wild food harvests to rural livelihoods: a global-comparative analysis, *Food Policy*, 62, 122-123

¹⁵ Harris, S. (2014) *Grasses*. London, Reaktion Books LTD, p.9.

¹⁶ Hickey, Quantifying the economic distribution, *op. cit.*, p. 122.

¹⁷ *IPCC* (2014) *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. *IPCC*, Geneva, Switzerland, pp 2-4.

by 0,85 (0,65 to 1,06)°C, over the period 1992-2011 the Greenland and Antarctic ice sheets have been losing mass, since the beginning of the industrial era the accumulation of CO₂ in the ocean has resulted in an increase of its acidity by 26 % and over the period 1901-2010 global means sea level rose by 0,19 m.¹⁸

This is caused by greenhouse gases emissions, such as CO₂, CH₄, N₂O and Chlorofluorocarbons, “mainly driven by population size, economic activity, lifestyle, energy use, land use patterns, technology and climate policy”.¹⁹

This issue cannot be underrated: “Continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems. Limiting climate change would require substantial and sustained reductions in greenhouse gas emissions which, together with adaptation, can limit climate change risks”.²⁰

In order to tackle the issue of starvation, pressure is being put on cultivated species, increasing agricultural productivity. But this does nothing apart from augmenting emissions: agriculture counts for 20% of all green houses emissions producing methane and nitrous oxide and it is one of the greatest consumer of water.²¹

The drama of these consequences shows that a change is unavoidable: we cannot entirely rely on agriculture for our food production but it is necessary to start with what we already have, with what nature gives us, as a way of acting in the most sustainable way.

The richness of our planet comes from its biodiversity, in the form of animals, plants, fungi, microorganisms and bacteria that populate our earth in different forms of ecosystems. This heritage is being lost every day because of the anthropogenic impact.

3.3. In defence of biodiversity

Species disappearance is dramatically increasing day by day. Current trends estimate that 34,000 plants and 5,200 animal species are facing extinction.²² This incredible loss is mainly due to modern agriculture and its focus on few and high yield varieties, with the consequent loss of

¹⁸ *Ibidem*

¹⁹ *Ibidem*, p. 8.

²⁰ *Ibidem*

²¹ Charles, H. et al. (2010) The future of the global food system, *Philosophical Transactions B*, 365, 2773-2774.

²² UN Environment. (n.d.), *Sustaining life on earth*, Convention on Biological Diversity, viewed 15 October 2017, <<https://www.cbd.int/convention/guide/default.shtml?id=changing>>

others.

Many documents have underlined the urgency of finding measures to arrest this disruptive process.

The first one was the *CBD (Convention on Biological Diversity)*, a document elaborated in 1992 during the *1st Earth Summit* in Rio de Janeiro with the target to reduce the biological loss by 10% by 2010. It fixed the following objectives:

“The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding”.²³

Even though the target has not been accomplished, it has been a way to recall the importance of biodiversity in order to direct politic and individual action towards its preservation. It points out how much extinction has accelerated in the last years, shifting from a natural phenomenon to the “greatest extinction crisis since the natural disaster that wiped out the dinosaurs 65 million years ago”.²⁴

Under the coordination of the *United Nations*, a group of more than 1360 scientists led a program about the relationship between natural and social systems. They published the final report called *Ecosystem and human well-being*, accompanied by the statement called *Living Beyond Our Means. Natural Assets and Human Well-Being*. Here follow the key messages:

“■ Everyone in the world depends on nature and ecosystem services to provide the conditions for a decent, healthy, and secure life.

■ Humans have made unprecedented changes to ecosystems in recent decades to meet growing demands for food, fresh water, fiber, and energy.

■ These changes have helped to improve the lives of billions, but at the same time they weakened nature’s ability to deliver other key services such as purification of air and water, protection from disasters, and the provision of medicines.

■ Among the outstanding problems identified by this assessment are the dire state of many of the world’s fish stocks; the intense vulnerability of the 2 billion people living in dry regions to the loss

²³ United Nations (1992) *Convention on Biological Diversity*, p.3.

²⁴ UN Environment. (n.d.), *Sustaining life on earth*, Convention on Biological Diversity, viewed 15 October 2017, <<https://www.cbd.int/convention/guide/default.shtml?id=changing>>

of ecosystem services, including water supply; and the growing threat to ecosystems from climate change and nutrient pollution.

- Human activities have taken the planet to the edge of a massive wave of species extinctions, further threatening our own well-being.
- The loss of services derived from ecosystems is a significant barrier to the achievement of the Millennium Development Goals to reduce poverty, hunger, and disease.
- The pressures on ecosystems will increase globally in coming decades unless human attitudes and actions change.
- Measures to conserve natural resources are more likely to succeed if local communities are given ownership of them, share the benefits, and are involved in decisions.
- Even today's technology and knowledge can reduce considerably the human impact on ecosystems. They are unlikely to be deployed fully, however, until ecosystem services cease to be perceived as free and limitless, and their full value is taken into account.
- Better protection of natural assets will require coordinated efforts across all sections of governments, businesses, and international institutions. The productivity of ecosystems depends on policy choices on investment, trade, subsidy, taxation, and regulation, among others.”²⁵

The main warning is put on human activity. The pressure on natural ecosystem is so strong that it cannot ensure enough sources to sustain future generations.

Further efforts and programs in this direction have been taken during the years. Important is the economic example of the *TEEB* (*The Economics of Ecosystem and Biodiversity*), an international program conducted by the Indian economist Pavan Sukhdev. This program attributes an economic value to biodiversity and to ecosystems, and underlines the strong dependence of our existence on biodiversity and the issues that we will face due to its loss. He considers the activities targeted at preserving natural sources as a good economic investment.²⁶

From this two important documents, the *MEA* and the *TEEB*, the matter of ecosystem services emerges. Ecosystems work for us, in the sense that they are fundamental for many of the biological processes that human species needs. Some examples are climate regulation, carbon

²⁵ Millennium Ecosystem Assessment Board (2005) *Living Beyond Our Means. Natural Assets and Human Well-Being*, p.3.

²⁶ Bologna, G. (2013) *Sostenibilità in pillole*. Milano, Edizioni Ambiente, pp.187-202.

absorption, soil regeneration, seeds spreading, pollination, primary productivity, nutrient cycle, water cycle, pests control and many others.²⁷

As a matter of fact, a loss of the main components of these systems can have drastic consequences on the functions and efficiency of the services they offer to improve our wellness.²⁸

In the online magazine *Solutions*, Robert Costanza further analyzes this topic :

“The idea that preserving the environment is an asset, rather than an impediment, to economic growth and development is both very old and very new. For most of human history, at least until the start of the Industrial Revolution, the benefits humans derived from nature were well recognized and embedded in various cultural rules and norms [...] An understanding of the role of ecosystem services emphasizes our natural assets as critical ingredients in our overall wealth. Sustaining and enhancing human well-being requires a balance of all of our assets—individual people, society, the built economy, and the rest of nature. This reframing of the way we look at nature is essential to solving the problem of how to build a sustainable and desirable future—a goal that we all share”.²⁹

Nature is no more to be seen as an aesthetic component of life, but instead as the necessary condition that makes every living being life possible. We all belong to it and its wellness has consequences on our own. This article shows off how we should shift our attention from us as individuals to us as part of an ecosystem, on which we depend.

Given the many problems of our modern system, the first step towards a more sustainable future is to preserve what we have. In this regard, it is essential to put the emphasis on wild food system, an underrated resource that can be fundamental in guaranteeing a steady and sustainable service for the future, if exploited in the right way.

²⁷ *Ibidem*

²⁸ *Ibidem*

²⁹ Costanza, R. (2011) Changing the Way We View Humanity and the Rest of Nature, *Solutions*, 2 (6).

4. WILD FOOD OVERVIEW

We often associate the use of wild food with hunter-gatherer societies, back to the time before the invention of agriculture. However, agriculture has always had a close relationship with its “weeds”.

The first societies were living on hunting and gathering, moving from place to place and following the presence of the resources in the territory. When 10,000 years ago agriculture was invented, people started to select some plants and domesticate them. This process led to more static societies that were relying on what they were cultivating. This control slowly turned into dependence: through the selection and use of few species, people became more and more vulnerable to climate and external conditions.

For this reason farming has always had to be connected to gathering and hunting and viceversa. In agricultural society wild food was often gathered at the field edge, and it was used to compensate the harvest (hidden harvest), adding some more nutrients and variability to the everyday staple food, or in food shortage periods (famine food), when cultivated species were lacking due to harsh climate conditions, wars or external factors. On the other end, hunter-gatherer societies diet was supplemented by some agriculture products that they grew themselves or purchased from other communities.

“There is no progressive evolutionary trend of development from hunter gatherer to small-scale settled agriculture and livestock keeping to intensive agriculture systems”.³⁰ All these phases cohabit in the same system and are interrelated by continuous interactions, with positive and negative externalities. The progressive change of agriculture patterns, from extensive to intensive and from forest to cattle pastures, lead to a big loss of wild life diversity, mainly due to the introduction of new technologies coming from the green revolution, such as herbicides and pesticides, that destroyed every form of life around the field.³¹

4.1. Poverty

Looking back at our history, we can observe many cases that show the strong connection between wild food consumption and poverty.

³⁰ Scoones, I., Melnyk, M. and Pretty, J. (1992) *The Hidden Harvest, Wild Foods and Agricultural Systems*. London, The Sustainable Agriculture Programme, p. 10.

³¹ *Ibidem*

4.1.1. Famine food

In Europe wild food has been essential in order to cope with poverty and starvation periods caused by wars, politic and adverse weather conditions. From the 19th century till 1960, these dramatic moments challenged people food security, daily resources depleted and mushrooms, wild vegetables, fruits and nuts were the only survival foods left.³²

Many outbreaks of famine arrived all over Europe. Well known is the potato blight, caused by the *Phytophthora infestans* disease, that affected many potato dependent Countries, such as Ireland and Poland, causing a general crop failure with the consequent huge famine that was in part alleviated by wild products. Many other cases due to crop failure reproduced in other Countries. The Russian famine in the 1892, caused by a dry season and rigid winter temperatures, is a big example.³³

The succession of wars and revolution in the 20th century saw a big food emergency and reliance on wild products: World War I, the Soviet Union establishment in Easter Europe in 1921-1922, the Spanish Civil War in 1936-1939, World War II. And still the siege of Leningrad (1941-1944), the Athens famine (1941-1942), the Dutch winter of hunger (1944-45) and the three year siege of Sarajevo, which strongly promoted education programs for using the plants of the besieged city.³⁴ All these events have been a good example of how some foods, that are normally ignored, made an essential contribution to the population energy intake.

The mechanism of use by most of the population was the substitution: wild ingredients were used instead of the normal cultivated ones, in the preparation of traditional dishes, mainly as a bread additive or for soup and potheb. Bread with acorns in Spain or with other materials such as tree bark, roots, rhizomes, wood shaving in Poland and Estonia are good examples.³⁵

It is interesting to see how many of the wild ingredients used in these poverty times are still present in many culinary traditions. Many of these habits have been lost at the end of crisis and emergency periods like in northern Europe, but in some Mediterranean Countries these preparations can still be found.

³² Łuczaj, Ł., et al. (2012) Wild food plant use in 21st century Europe: the disappearance of old traditions and the search for new cuisines involving wild edibles, *Acta Societatis Botanicorum Poloniae*, 81(4), 360.

³³ *Ibidem*

³⁴ *Ibidem*

³⁵ *Ibidem*

4.1.2. *Hidden harvest*

Most of the times, rural people did not have such a variety of products to cook and the staple diet was quite monotonous, based mainly on few and largely available local products. However, many variations or added flavors could be integrated thanks to the use of wild resources.

Imagine a farmer, after a long working day in the field, picking some wild plants growing nearby the cultivated area before going home. At the same time, imagine his wife and children walking in the forest and gathering some berries and plants here and there. In the end, new tastes and texture could be integrated in such a poor and repetitive cuisine.

Contact with nature was in everybody's lives and people were used to get food from it. Walking was the main way of moving and experiencing the territory, developing high sense of observation and intuition skills.

This is true both for hunter gatherer society and for agriculture based ones. Interaction between wild and cultivated, nature and culture has been an unavoidable pattern of every society. To understand this point it is enough to observe nature dynamics: there is no uncontaminated wilderness or a fully controlled agriculture. Wild plants invade cultivated fields, they are not constrained by any human law but they strongly keep on growing wherever man tries to limit them. Same for nature: it is like this because man shaped it, through the constant gathering, managing and use of its resources.

Food gathering was indeed often related to other duties such as landscape managing, farming, herding or simple walking in the forest.³⁶ These everyday activities were part of everybody lives, as a fundamental source of sustenance for the entire family.

Through practice, knowledge was alive and transmitted from generation to generation. Children were exposed to the use of these plants and participated in their gathering, preparation and consumption.

People life heavily depended on nature, season rhythm, climate and the products that territory could offer. Hence, the great respect and the continuous efforts to preserve it .

Free access to nature and proximity to it were key factors to keep alive these activities and, with them, people knowledge.

³⁶ *Ibidem*

4.2. Plants knowledge loss

At the end of the 20th century many events shaped food system production and people lifestyle all over Europe.

In particular, the Green Revolution brought great innovations in the agriculture sector, introducing high yield crop varieties, pesticides and herbicides to fight weeds, pests and elements that could obstruct crop productivity. Agriculture became more intense, reducing the variety of cultivated plants and focusing more on monoculture and intense farming. This caused an irreversible diversity loss, both of cultivated and of wild varieties, due to their abandonment and disappearance caused by herbicides.

An increased agriculture production reduced the need for wild food and slowly its gathering practice disappeared.

Another huge change to people lifestyle was brought by World War II.

At the end of this war, society assisted to a new age of abundance with the appearance of supermarkets selling every kind of products, whose canned food, precooked and ready to go. New job opportunities led to a big movement of people from rural villages to cities and many women started to work, instead of doing domestic tasks. Women had less time to dedicate to cooking and food provisioning and they started to purchase new products.

As a consequence, many people lost connection with nature and became more and more dependent on market products. Traditional uses of plants got lost and the new generation did not have the chance to get in touch with them.

The practices of landscape managing and the disseminating of seeds were not common any more, as people started to leave far from rural areas and forest, and wild food diversity reduced.

Another important restriction to wild food gathering was caused by the enclosure movement in England, which will be illustrated in chapter 5.1 .

4.3. Benefits

Wild food consumption, compared to cultivated species, presents various benefits from health, to environment and economics.

4.3.1. Health

According to Luczaj, the superiority of wild food is given by the higher concentration of microelements and bioactive compounds, that in cultivated species are instead “diluted by selection and growing conditions”.³⁷ Furthermore, it is likely to be less contaminated by nitrates, herbicides and heavy metals, since gathered in unpolluted locations.³⁸

In different scientific studies, many beneficial compounds in edible plants are explored and proved to be effective in their curative action. Compared with cultivated species, they contain higher amount of fats, proteins, minerals and vitamins. These micronutrients are essential for our well being and they have to be integrated in our everyday diet. Dietary diversity is essential since many nutrients interact and enhance each other’s activity, for instance fats and the absorption of liposoluble vitamins A, D, E.³⁹

A study conducted by Guarrera and Savo on the traditional plants used in Italy, highlights the most important compounds present in those plants and their highly beneficial effects. Here follow the main compounds contained in the most used plants:

- Glucosinolates, with anticancerogenic properties
- Polyphenols, with antiscavenging and antioxidant properties
- Flavonoids, with anti-ageing properties (whose Kaempferol is a phytoestrogen with anti-cancer activity)
- Bitter sesquiterpen lactones, with appetizing and digestive properties (in many plants of the Asteraceae family)
- Saponins, with diuretic and haemolytic properties
- Mucilages and anthracene glycosides, with laxative properties
- Valepotriates, that are likely to have sedative properties
- Alkaloids, with sedative properties (*Papaver rhoeans*)
- Tannins, with astringent properties
- Essential oils, with many therapeutic properties

³⁷ Luczaj, L. (2010). Changes in the utilization of wild green vegetables in Poland since the 19th century: A comparison of four ethnobotanical surveys, *Journal of Ethnopharmacology*, 128(64), 9.

³⁸ *Ibidem*

³⁹ Scoones, *The Hidden Harvest*, op. cit., p. 120.

- Fibers, whose high concentration helps to decrease the presence of cholesterol and to fight tumors, facilitating food transit in the intestinal wall and reducing the time of contact with carcinogenic substances. (For example *Taraxacum campylodes*)⁴⁰

Many plants have been found to have a higher mineral content, such as *Borago officinalis*, good source of Potassium, *Chenopodium album*, rich of Calcium, *Portulaca oleracea*, rich of Magnesium, *Chondrilla juncea*, rich of Calcium and Manganese, the well known *Urtica dioica*, rich of mineral salts and *Malva sylvestris*, rich of Sodium. Many bioactive compounds are also individuated in many wild plants, in form of vitamins, essential fatty acids and complex sugars. A good example is the *Portulaca oleracea*, plant already consumed by Romans, and its content of beta-carotene and vitamins C and D, as well as ω -3 fatty acids and antioxidants.⁴¹

Furthermore, the main aromatic plants used for seasoning in the Mediterranean culture help reducing the salt need (adding flavor themselves to food) and the problems related to it (hypertension), and have digestive, antiseptic, carminative and anticancer properties.

In particular taking into account two of the most common herbs in Mediterranean cuisine, we can analyze further potentials: *Origanum vulgare* with its antispasmodic properties and *Thymus serpyllum*, with diuretic, vermifuge, balsamic and choleric activities.⁴²

In the study, over 276 wild taxa used in traditional vegetable mixtures in Italy listed, belonging to 40 families, a total of 158 plants have been reported having a pharmacological activity.⁴³

Italian cuisine, together with the other Mediterranean Countries (Spain, Portugal, Morocco, Cyprus, Greece and Croatia), constitutes the well known Mediterranean diet.

First defined by the American nutritionist Ancel Benjamin Keys as a diet “characterized by abundant plant foods, fresh fruit as the typical daily dessert, olive oil as the principal source of fat, dairy products (principally cheese and yogurt), and fish and poultry consumed in low to moderate amounts, zero to four eggs consumed weekly, red meat consumed in low amounts, and wine consumed in low to moderate amounts, normally with meals” and recognized as *UNESCO Intangible Cultural Heritage of Humanity*, this diet is mainly addressed to the South European way of eating that shows to have a link with the high life expectancy and one of the lowest rate of coronary heart disease, of certain cancers and other diet-related chronic diseases.⁴⁴

Among the main patterns defined by the American nutritionist to be the constitutive element of the

⁴⁰ Guarrera, P.M., Savo, V. (2016) Wild food plants used in traditional vegetable mixture in Italy, *Journal of Ethnopharmacology*, 185, 223-225.

⁴¹ *Ibidem*

⁴² *Ibidem*

⁴³ *Ibidem*

⁴⁴ Biscotti, N. and Pieroni, A. (2015) The hidden Mediterranean diet: wild vegetables traditionally gathered and consumed in the Gargano area, Apulia, SE Italy, *Acta Societatis Botanicorum Poloniae*, 84(3), 327.

diet, there is however “an hidden part of the Mediterranean diet” constituted by wild vegetables, whose role in counteracting metabolic diseases and as remarkable anti-oxidants has been demonstrated by many phytopharmacological studies.⁴⁵

This study is only one of the many examples of the different diets in Europe, in which wild food has played an important role (in some of them still does) in balancing the diet and providing the essential amount of microelements necessary for an healthy life.

The anthropology professor Nina L. Etkin highlights the methodological deficiency of many diets surveys, that most of the times ignore wild plants in favor of cultivated ones.⁴⁶ Many diets descriptions do not take in consideration the big contribution provided by local wild resources, added to the main preparations as a way to improve taste, help preservation and enrich it nutrition and health wise.

Medicine and food are strongly related and in many cultures the particular use related to some wild plants is connected to their specific medicinal action.⁴⁷

In the ancient Greek culture, diet was a way of living and included eating, sleeping, physical and sexual activity (the word comes from the ancient Greek *diata*, that means life regime). Food and physical wellness were extremely connected and food as pleasure corresponded to food as health. It is only in the 19th century that gastronomy, in term of pleasure, got separated from dietetic, as medicine and cure for the body.⁴⁸

The Greek perception of life and food, could be compared to foraging lifestyle.

Food collection implies the search, the act of looking for it, the patience, the time, the use of senses. All these activities are linked to movement: it is not a static gather in a specific field, but it is dynamic, from one place to another, following the rules of nature.

Hence the psychophysics benefits: muscles are constantly used, mind is activated in a different way, towards the active use of all senses, and contact with nature contributes to mental well-being.

4.3.2. *Economic*

In many cases, the economic value of wild food is underrated. It is a common thought that “cultivation allows better quality control, a more constant supply, a higher yield, and smaller

⁴⁵ *Ibidem*

⁴⁶ Dogan, Y. et al. (2004) The use of wild edible plants in Western and Central Anatolia (Turkey), *Economic Botany*, 58(4), 684.

⁴⁷ *Ibidem*

⁴⁸ Perullo, N. (2016) *Il gusto come esperienza*. 2nd ed, Bra, Slow Food Editore, pp.119-120.

distance to food supply, leading to a lower time investment to collect food”.⁴⁹ If these advantages can apparently facilitate food production, on the other hand, they can also make it weaker: a food system entirely reliant on agriculture productivity will be totally affected by any weather or ecologic change. As a consequence the “constant supply” and the “higher yield” above cited can then undergo extensive alteration, causing people to rely on other resources.

FAO has highlighted the necessity of a revaluation of wild food potential: “The enhanced use of wild plant resources would provide greater income and food security, the possibility of development through small-scale investment, more profitable use of farm household labor and the avoidance or alleviation of poverty. The role of wild plants, especially in rural farm households, is, however, very often ignored or underestimated by planners, policy-makers, aid and development agencies, banks, extension services, economists, agronomists, genetic resources organizations and others. This problem needs to be addressed in policy-making, since wild plants make an important contribution to rural and national economies, to local, national and world trade and to the material needs, income, employment and way of life of many millions of people throughout the world”.⁵⁰ Lack of statistics and recorded data about wild species and their potential benefits, due to the informality of the practice, makes difficult any policy or law oriented effort. Government rarely take it in consideration and the consequence is the unawareness of most of this food.

However, literature tried to demonstrate the economic and social value behind wild food in many rural communities.

In the research project “The hidden harvest” three kinds of value related to wild food are reported: “direct use values”, relating to consumption and sale, “indirect use values”, addressing to its ecological and environmental functions and “non use values”, referring to cultural, religious and existence ones.⁵¹ This distinction is clear and effective in the way it brings out the main elements to be taken into account in order to assign a proper value to collected and sold wild food.

Behind the collection of a plant, there are many factors that may influence the variability of the price and value assigned to it. The time spent gathering and looking for it, the environmental cost of its loss, the rarity, the symbolic and religious implication have to be estimated and taken into account by local legislation to ensure a sustainable management, to “guarantee rights for local people over the use and benefits of wild food” and “economic incentives to ensure their

⁴⁹ Schulp, C.J.E., Thuiller, W., Verburg, P.H. (2014) Wild food in Europe: A synthesis of knowledge and data of terrestrial wild food as an ecosystem service, *Ecological Economics*, 105, 302.

⁵⁰ Heywood, V. (1999) *Use and potential of wild plants in farm households*. Rome, Food and Agriculture Organization of the United Nations, pp.10-30.

⁵¹ Scoones, *The Hidden Harvest, op. cit.*, p. 168.

existence”, encouraging its market.⁵² “In situ conservation of wild genetic resources will be the key to the maintenance of economically important biodiversity”, always supported by legal control.⁵³

The enhance of the economic value of wild food could be an optimal way of finding new market and exchange ways for it, promoting its spread and diffusion among the population.

4.3.3. *Environmental*

A reduced agriculture intensity and a diet supplemented with wild food can be good starting points for a sustainable use of natural resources. Biodiversity loss can be avoided with an accurate gather that takes into consideration natural limits, growth speed, plant efficiency and rarity.

In this regard, it is important to avoid overexploitation, most of the times pushed by pharmaceutical companies or market requirements, leading to the collection of large quantities of plant material without regard to the sustainability of populations.⁵⁴

Nature rhythm is to be observed and respected: a balance of gather and care has to be guaranteed. Plants are to be gathered but need time to grow again. At the same moment, it makes no sense to think that plants should not be touched by men, that nature should remain a separate and unaltered entity. Nature needs man’s action as well as man needs nature’s offers. It is thanks to human capability of understanding and coping with the rules of nature that many ecosystem and habitats still exist.

The “weedy characteristics” of many wild crops, such as fast growth, low soil water need, and nutritional properties, may have a relevant importance in adapting to ecological change. Being aware of the global climate change and the pressure that is putting on existing and cultivated crops, we have to recognize the potential of these wild relatives in coping with variable environmental conditions and ensuring a long term food security.⁵⁵

The environmental benefits derive from the sustainable use of wild resources present in the territory, that can lead to landscape preservation from habitat and biodiversity loss and help its resilience.

Foraging can be easily compared to agriculture for the way every step corresponds: it embraces many practices like seeds scattering, selective plant gathering and wild tending. The only

⁵² *Ibidem*, p.174.

⁵³ *Ibidem*, p.192.

⁵⁴ Heywood, *Use and potential of wild plants in farm households*, *op. cit.*

⁵⁵ Scoones, *The Hidden Harvest*, *op. cit.*, pp. 191-192.

difference between the two is the boundary: in foraging there are no limits, no properties, everybody has the access to it.

It is though important to take in consideration every element being part of the ecosystem (“a community of all plants and animals and their physical environment, functioning together as an interdependent unit”⁵⁶) and understand their link with each other. Their mutual relationship is not to be undervalued and a wrong action can compromise the whole functionality of the ecosystem services.

As the author John Lawton reminds, “If you collect all the species from an hectare of forest, you’d go bankrupt, and all you would have would be a list; not even a shopping list. You wouldn’t be able to trace an economy through it; it would be like trying reconstructing how a city works from a residential phone directory”, underlining the necessity of knowing the ecological and economic functions of every plant in their interconnected world.⁵⁷

Miles Irving, the founder of the *Forager* company, provides an ecological perspective of wild life: “the problematic thing with regard to species loss and not conserving biodiversity is habitat loss, because species need habitat where they can exist with the other species that they form communities with”.⁵⁸

Our task is to allow the existence of this complex ecosystems, accessing to their resources without undermining the functionality of their mechanisms.

4.4. Factors affecting wild food gather

The collection of wild food is affected by many factors and conditions. In the review “Wild Food in Europe: a synthesis of knowledge and data of terrestrial wild food as an ecosystem service”, data and factors affecting wild food collection and access in Europe are reported. The main factors are “income, age, gender, opportunities for wild food collection, and cultural factors”.⁵⁹

⁵⁶ Leaman, D.J. and Salvador, S. (2005) *An international standard for the sustainable wild collection of medicinal and aromatic plants (ISSC-MAP): principles, criteria, indicators, and means of verification*. Draft 2, April 2005. Steering Group for the Development of Practice Standards and Performance Criteria for the Sustainable Wild Collection of Medicinal and Aromatic Plants, p.14.

⁵⁷ Scoones, *The Hidden Harvest*, *op. cit.*, p. 206.

⁵⁸ Forager (2017), *Tending the wild at Folkestone Warren*, online video, viewed 26th October, <<https://www.youtube.com/watch?v=PAyhMDozblQ>>

⁵⁹ Schulp, *Wild food in Europe*, *op. cit.*

Country	Fraction forest and other wooded land ^a	Population density (pers/km ²) ^a	GDP per capita (€, 2010) ^a	Importance WF in cuisine ^b	Accessibility regulations forest & nature ^c	Regulations WF collection ^c
Austria	0.48	102	29,300	Very high	Strict	Moderate
Belgium	0.23	353	27,400	Low	Strict ^e	Very strict ^e
Bulgaria	0.36	69	10,400	High	Moderate	Very loose
Cyprus	0.42	95	23,200	Moderate	Strict	Strict
Czech Republic	0.34	135	19,200	High	Strict	Moderate
Denmark	0.15	129	28,400	Low	Loose	Moderate
Estonia	0.55	32	15,000	High	Loose	Loose
Finland	0.76	18	26,600	Very high	Very loose	Very loose
France	0.32	1.14	25,400	Very high	Strict	Moderate
Germany	0.32	235	27,400	Moderate	Moderate	Very loose
Greece	0.51	87	22,100	High		
Hungary	0.23	111	15,300	Low	Strict	Moderate
Ireland	0.11	67	29,800	Low		
Italy	0.37	204	24,400	Very high		
Latvia	0.56	36	12,200	Moderate		
Lithuania	0.36	52	12,900	Very high	Very loose	Loose
Luxembourg	0.34	190	64,000	Low		
Malta	0.01	1281	19,000	Low		
Netherlands	0.11	492	30,800	Very low	Loose ^f	Strict ^f
Poland	0.30	124	14,300	High	Strict	Loose
Portugal	0.40	118	18,900	Moderate		
Romania	0.29	92	10,900	Moderate	Moderate	Strict
Slovakia	0.40	113	17,200	Moderate	Very loose	Moderate
Slovenia	0.63	101	20,700	Very high	Loose	Very loose
Spain	0.56	91	24,300	High		
Sweden	0.75	23	28,000	High	Loose	Very loose
United Kingdom	0.12	255	26,500	High	Very loose	Moderate

Table 1 “Country-level overview of explaining factors for wild food collecting”⁶⁰

Analysing these factors, we can notice how their effect can change according to the wild product in question: game, mushrooms, berry fruits and vascular plants.

- **Game.** First of all, national income is the main factor affecting hunting participation: it is indeed considered a status symbol for rich people in high income Countries. The age range is from 20 to 60 years for the most of hunting population (from two third in Ireland to 90% of the hunter population in Italy), mainly composed by men. Secondly, the amount of nature available and the access regulation make a big difference in hunting participation: higher participation in Scandinavia is due to less strict regulation. And finally, the traditional role of hunting is a determining factor: it is highly present in Greek and Swedish traditions, as well as in in Scotland and other parts of UK.⁶¹
- **Mushrooms.** The effect of income on its collection has not been demonstrated , as well as a gender prevalence (prevalence of women picker in Finland, and men picker in Italy and Poland).

The age range tends to be high as “older people are overpresented among mushrooms collectors”.

Certain is the influence of variable like regulations, proximity of habitations to forest or

⁶⁰ *Ibidem*, p. 299.

⁶¹ *Ibidem*, p. 298.

nature (“people mostly collect mushrooms within 5 km from their home”), that means higher knowledge of ecosystem and ability to orientate in the woodland. Mushroom availability and season are also necessary conditions. Finally, national tradition is considered to be a key factor in the collection (tradition is present in Finland, Baltic Countries, Romania, Greece, Czech, parts of Italy, Catalonia and northern Slavic Countries).⁶²

- Berries and fruits. It is a typical family activity and women are considered to have higher participation rates. Here again, berries collection is strongly influenced by the access rights to forest and nature (higher access to nature, higher berry pickers percentage). Finally distance from home (normally gathered within 35 km) and high abundance areas are fundamental for higher participation rates.⁶³
- Vascular plants. This activity is strongly poverty related: consumption is associated with times of food shortage or in lower income regions. It is a female activity and mainly practiced by older people. Regulation, as with other wild food categories, plays an important role: “in regions with strict access or collecting regulations, wild plant collecting is less common than areas where rules are less strict or not enforced”. Proximity to habitation (mostly field edges, roadsides, pathways and wild areas close to the village) and rural communities have been recorded a higher participation rate. Finally culture and tradition play a fundamental role, as well as the amount of time people lived in the same place (“people who live in a region for a long time tend to collect wild plants more frequently”).⁶⁴

It is estimated that 65 million people collect wild food occasionally (14% of all EU citizens) and a 100 million consume it.⁶⁵

According to the factors listed, we can notice similar patterns in mushrooms and vascular plants collection, both depending on regulation and access to land.

Taking a look at the cultural value connected to wild food, we see high importance in the traditional cuisine of Countries like Greece, Poland, France and Italy and instead low one in other

⁶² *Ibidem*

⁶³ *Ibidem*

⁶⁴ *Ibidem*, p. 299.

⁶⁵ *Ibidem*, p. 303.

agriculture based Countries like Netherlands, Denmark and Hungary, mainly reliant on agriculture products for their traditional preparations.⁶⁶

Furthermore, people identity can be an important promoter in wild food gather: “wild food is considered as a mark of local and regional traditions and is an irreplaceable expression of natural and cultural heritage”, going hand in hand with recreational motives (many “day trips to nature” are occasion of gathering especially in Finland, Italy and Spain).⁶⁷

In term of nature supply, landscape and ecosystem changes is one of the main driver of wild food decrease: “supply of edible vascular plants has decreased following general biodiversity decrease, due to scale increase of agriculture, herbicide application, nutrient inputs, fragmentation and pollution”. Over all, the increase of agriculture and food trade led to a decreased necessity for wild food collection and consumption. Where agriculture arrived first, wild food collection decreased faster.⁶⁸

Evidence shows how urbanisation increased and fastened people reliance on traded food from other Countries. Instead in France, Italy and many Eastern European countries, that remained rural for longer time, wild food need persisted longer.⁶⁹

All these assumptions highlight the relevance of the link with the territory: people that lived longer in the same place, that are closer to the land are more likely to have knowledge and better access to wild food than people living in cities or away from common lands.

Access to common land is one of the key factors for wild food accessibility. In chapter 6 the dynamics around it will be exposed.

4.5. New trend: 21st century

After the decreased wild food consumption and loss of knowledge of the 19th century, due to ecological and socioeconomics changes, the 21st century assists to a rebirth of wild food use and consumption.

New tendencies took place in contrast to the previous industrial and consumption based society, promoting new ways and alternatives to take back what was lost. Ideas like going back to “pure” nature, to traditional knowledge, to diversify diet, to consume healthy food and local products

⁶⁶ *Ibidem*, p.302.

⁶⁷ *Ibidem*

⁶⁸ *Ibidem*

⁶⁹ *Ibidem*

made possible a shift from industrial and standardized foods to the revaluation of homemade, local and fresh products.

In particular, it was in the 80s that foraging gained popularity all over Europe, thanks to the contribution of many protagonists.

Many guides started to be published, whose the famous *Food for free* written by Richard Mabey, one of the first guide in Europe and others written in French and German by the French botanist Francois Couplan, one of the biggest forager in France in the mid 90s. After that many other guides were written with the aim of promoting and improving edible plant knowledge. Examples are still the Czech author Dagmar Lanska, whose copies were spread in Eastern Europe, the botanist Ljubisa Grlic, influential in the Countries of previous Yugoslavia, Ray Mears writers and TV series director in Britain, Picchi and Pieroni monograph on edible plants in Italy and still the *Plants for a Future* database produced by the English Ken Fern.⁷⁰

As a consequence more literature and courses about the topic became popular. In Europe and in the USA the idea of enriching the food scape takes place. In 1990, the first foraging association in Europe is born: *Club Amici Valchiusella*, composed of people that started going and looking for wild ingredients.

Foraging arrived also in the world of restaurants: from agritourisms farms and local rural restaurants to avant-garde restaurants. This tendency started with Michel Bras in France and then followed by René Redzepi, in *NOMA*, with the aim of reaffirming the sense of place, as one point of his Manifesto.⁷¹

Top restaurants started to follow this philosophy, distinguishing themselves with new ingredients, modernizing the traditions and introducing the esthetic side of food. Under this direction wild food changed its nature: from simple, accessible, common resource became complex, elaborated and elite reserved. From food related to poverty and famine to a high class prerogative.

All these series of events contributed to an increase of wild food knowledge but that remained among few individuals.

Nowadays there is an utilitarian vision behind foraging, that lacks the idea of a continuous interaction with nature and focuses on the economic value behind wild food, having as a goal a targeted and concentrated gather.

⁷⁰ Luczaj, Wild food plant use in 21st century Europe, *op. cit.*, p.365.

⁷¹ *Ibidem*

Two parallel worlds cohabit in the same planet: on one side there is a big amount of wild food available but little knowledge, on the other side there is more knowledge but the supply is addressed to few. Access to wild food is in both cases difficult and presents many obstacles.

5. STUDY CASES

In order to analyze in depth this antithesis, I propose two study cases: *Forager*, a foraging platform more focused on the commercial side and *Club Amici Valchiusella*, an Association more imprinted in education and building people awareness of wild food.

5.1. Forager

5.1.1. Socioeconomic and geographic introduction

The company is situated in England, in the county of Kent, considered by many “the gold of England” for its great green and diverse landscape, often blessed by the shining sun. This is what gives a great value to this area: its biodiversity is incredible, due to the climate and to the presence of such a diversity of habitats in a small distance. From hills to fields, from meadows to woodland, from sea to rivers, Kent hides an immense treasure, a source of richness that comes directly from nature.

The *Kent Biodiversity Partnership* has recorded a total of 28 priority habitats to be preserved, here listed: ancient or species rich Hedgerows, built-up areas and garden, cereal fields margin, chalk rivers, coastal and floodplain grazing marsh, coastal saltmarsh, coastal sand dunes, coastal vegetated shingle, littoral and sublittoral chalk, lowland beech and yew woodland, lowland calcareous grassland, lowland dry acid grassland, lowland fens, lowland heath, lowland meadow, lowland wood-pasture and parkland, maritime cliff and slope, marine, mixed broadleaved woodland and plantations, mudflats, old orchards, reedbeds, *Sabellaria alveolata* reefs, *Sabellaria spinulosa* reefs, saline lagoons, sea grass beds, standing open water, wet woodland.⁷² Every single habitat presents completely different characteristics varying from soil Ph to altitude, from microclimate conditions to sun exposure and humidity; factors that strongly influence the growth of wild life.

In a range of 100 km it is possible to find completely different wild plants, adapted to their own micro conditions. This is the real meaning of *terroir*: soil, habitat and local conditions strictly influence the products that grow from it. As for wild herbs, differently than with cultivated species, the harsher conditions they grow in the better and more powerful taste will they develop. In Kent, the stunning variety of landscapes and habitats leads to a high natural botanical diversity, with many wild species and different tastes.

⁷² Kent Biodiversity Partnership (2009), *Kent Biodiversity Action Plan - 28 Priority Habitats*, p. 3.

While walking around, taste buds are challenged by new and unusual flavors, from the salty sea purslane growing close to the sea to the sour wood sorrel in the forest, from the fresh chickweed in cultivated fields to the bitter dandelion on the roadside, from the aromatic fir needles in the forest to the pepper-like Alexander seeds in the park and the spiciness of the black mustard leaves. Plants, berries, mushrooms and nuts are abounding and covering Kent in every single angle of nature and not only.

The main problem of this area is the loss of knowledge that downgrades the incredible value of biodiversity. Once plants were gathered and cooked by locals every day, but their use got less and less popular as a consequence of various factors:

- The enclosure movement: a phenomenon that started from medieval time and intensified in the 18th century. It consists in “the division or consolidation of communal fields, meadows, pastures, and other arable lands in Western Europe into the carefully delineated and individually owned and managed farm plots of modern times”.⁷³ Before, lands were commonly managed by communities and used for livestock grazing, resource collecting and other purposes. Land Enclosure means “to put a hedge or fence around a portion of this open land and thus prevent the exercise of common grazing and other rights over it”.⁷⁴

In England, during the period 1702-60 a total of 338,177 acres of land were fenced and after 1760 this practice further accelerated till 1815.⁷⁵ As a consequence, land passed to few land owners, that had the full control on them and strongly intensified agricultural production. Many were the consequences for small farmers: since they lost the right to use common lands as pasture for their cattle, they were obliged to cut their livestock number and, having less manure for their fields, to sell their farm to big owners and find a job in the industry.⁷⁶ There has been a resulting movement from countryside to cities of people that were taken away their land and looked for new income opportunities.

- Post wartime: after the World War II, both men and women were given the possibility to work. As a consequence, women had much less time to stay at home and cook for the entire family, mostly due to long working hours. The practice of cooking degraded and

⁷³*Enclosure. European History* (2017), Encyclopaedia Britannica, viewed 10 November 2017, <<https://www.britannica.com/topic/enclosure>>

⁷⁴ *Ibidem*

⁷⁵ Slicher van Bath, B.H. (1978) ‘L’agricoltura nella rivoluzione demografica’, in Rich, E.E., Wilson, C.H. (1978) *Storia Economica Cambridge. Economia e società in Europa nell’età moderna*. 2nd ed, Torino, Giulio Einaudi Editore s.p.a., p. 132.

⁷⁶ *Ibidem*

many other time implying activities (whose wild food gathering and processing) lost their priority.

New food arrival such as canned and pre made food, and supermarket appearance promoted a new model focused on speed and convenience. People reduced the time dedicated to any food activity with the consequent negative impact in next generations culture and knowledge.

Many people moved from rural areas to cities, following new job opportunities. This movement broke the connection with land and the use of its resources, turning people away from nature and making them foreign to this reality. City opened door to new opportunities, new facilities, new entertainment and people soon forgot their traditional uses and foods.

All these factors converge into one main consequence: knowledge stopped to be passed from generation to generation in everyday life as it used to be before. New generation grew up in a different world, far from the parent's one and the use of wild food in everyday preparation became nothing more than a distant memory.

Nowadays, English people have a fragmented knowledge about wild food, focused on few and common ingredients, such as blackberries and chestnuts. Many green landscapes, many beautiful pathways to walk in and nobody that really knows what to gather.

As a result of this generational jump it is harder and harder even to find old people that could still have some knowledge, cause they have already died.

The local legislation does not help to promote this consumption: it aims at defending landscape and biodiversity for an aesthetical purpose, forbidding the gather of many species. In particular, two are the laws that cover the foraging practice in England: the *Wildlife and Countryside Act* 1981 and the *Theft Act* 1978.⁷⁷

The *Wildlife and Countryside Act* forbids the collection of plants and fungi on a *National Nature Reserve (NNR)* or a *Site of Specific Scientific Interest (SSSI)*, without the allowance of *Natural England*. In addition some plants are protected under schedule 8 of the act, allowing their gather only in case of license, that is not given when the purpose of the gather is the culinary use. The *Theft Act* makes illegal the gather for commercial use without the landowner permission.⁷⁸

⁷⁷ Irving, M. (2009) *The forager handbook. Wild food guide to the edible plants of Britain*. London, Ebury Press, p.9.

⁷⁸ *Ibidem*

5.1.2. *Company history and mission*

Forager is the Britain's leading supplier of wild food.⁷⁹ It was founded in 2003 by Miles Irving after the first collaboration with the restaurant in Canterbury *The Goods Shed*, providing them with wild garlic. Following this first guest, many other restaurants started to ask for wild ingredients and sales increased year after year, leading to the creation of a wild food supply company.

Miles started his action in a difficult setting: great land potential but almost nobody that knew about it. He reinvented the culture of wild food: with the help of books, specialists and self experience he rediscovered the edible plants of Kent, the way of preparing them and, through the observation of their growth and behavior, the way of gathering them so that they could grow again. As a result of his research and analysis work, he wrote a guide to all edible plants of England *The forager handbook* and he is now the leader of the company, trying with his team to bring fresh wild ingredients in restaurant kitchens.

The company mission is well explained through Ross Evans words (the sell responsible), who worked in the team for the longest time, during an interview conducted on 19 October 2017: "We want more people to eat wild food and we want to question the way we currently produce food and explore alternatives, trying to find different and better ways to get food. Especially we are keen to reconnecting people and restore that broken connection, looking at what we do and finding which are the most effective ways to do that. It is important to reach people in different ways at different levels because that recognizes how different and diverse people's lives are, knowing that there is not one thing that fits everyone".

Their aim is to rebuild the culture of wild food in the region, that means to bring back people to a simple way of eating, starting from nature. Their objective is first to demonstrate that many wild products can be eaten and secondly to show the ways to prepare them. Indeed, for the most of the people it is not enough to know that an ingredient can be eaten but they have to be further helped towards its preparation. For this reason, Forager collaborates with chefs that are experimenting different ways to "make these ingredients tasty".⁸⁰

The customer target, in terms of sending them wild food, is restaurants and now members of the public (through *Farm drop*, an organization that distributes organic and wild food to people in London). The restaurants that they provide wild food to are the top restaurants in London, such as *Diners*, *The fat duck*, *Chiltern Fire House*, *Hix*, *Restaurant story*, *Roast*, *The ivy*, *The Ledbury*,

⁷⁹ *Faqs* (2017), Forager, viewed 10 October 2017, < <http://www.forager.org.uk/>>

⁸⁰ Evans R (2017), personal communication, 19 October

*Corrigan's Mayfair and Boisdale.*⁸¹

In the year 2017, they supply a total of 65 restaurants. They now handle over 500 wild ingredients.⁸²

5.1.3. Sustainable gather

Dealing with wild ingredients is not easy as it implies a season and nature dependent availability. There are months with many ingredients and months with less, in some seasons leaves might be gathered in others flowers or seeds. Again it is not a matter of imposing a quantity required on nature, but instead observing it and seeing what and how much it may offer.



Figure 2 Sea purslane gathering by a member of Forager in Kent, photo by the author.

In order to guarantee a sustainable way of gathering and reduce any possible waste, Forager team follows some fundamental steps:

- Observe nature and its resources: identify wild plants and see where they grow, how fast they regenerate once gathered, learn the season and time of the year in which they are the

⁸¹ *Faqs* (2017), Forager, viewed 10 October 2017, < <http://www.forager.org.uk/>>

⁸² Evans R (2017), personal communication, 19 October

most abundant

- Before gathering, a list with the required amount of certain plants (corresponding to the quantity ordered from the restaurants) is given and no more than this quantity is gathered to avoid any waste or useless plant collection. If the required quantity is too high for nature availability and risks to endanger its resilience, only the available amount is collected
- While gathering, it is important to select and collect only the best plants, leaving the others: if all the plants are gathered in the same spot, space will be left for other invading species to grow in place. Moving and taking small amounts in different spots is the best way to gather sustainably, preserving plant habitats and enabling a faster and easier growth
- Preserve: it is important to keep the ingredients in a refrigerated cell in order to extend the shelf life. Every time that there is a rotten or yellow leaf or flower, it has to be taken away from the rest, to avoid any further spoilage. The freshness of the product varies according to the herb in question, for instance chickweed and watercress are gathered on the day while sea purslane can stay fresh for more than a week



Figure 3 Stone crop gathering in Kent, photo by the author.

5.1.4. Plants table

Through the work at Forager, I got aware of the attention required for plant collection. Optimize the gather is the necessary condition for a sustainable and right approach to nature: a gather method has to be developed for every single plant in order not to occur in resources overharvesting and overexploitation and to guarantee the preservation and regrowth of the plant gathered.

Good gathering practices are the key factor of ecosystem preservation: they have to be developed after a careful observation and study of the interaction among all the ecosystem components, plant reaction and regeneration speed. If these components are ignored and quantity prevails, resource depletion and environmental devastation can occur.

In the following table, I have reported data related to the plants that I have gathered in the period spent with the company (1st-20th October 2017). The pieces of information have been collected through my personal experience: gather, nature observation, questions to the members of the team, observation of chefs preparations of the plants and private attempts of preparations. Furthermore, Miles Irving book (*The Forager Handbook*) has been consulted to complete the missing data and two websites (www.theplantlist.com, English Wikipedia) to verify the scientific names of each plant.

There is a total of 28 plants listed, whose dried samples can be seen in the attached herbarium. Common name, scientific name, family, habitat, gastronomic use and notes (nutritional content, gather precautions, curiosities) of every plant are reported.

Plant name	Scientific name	Family	Habitat	Use	Notes
Alexander	<i>Smyrniolum olusatrum</i> L.	Apiaceae	Coastal areas but once established, also inland. You find it in dense colonies on roadsides, path edges, wood edges and woodland	Used like a green vegetable: chopped and cooked in different ways	It was brought in England by Romans. Very popular till the 16 th century, when celery replaced it. There is no danger of overharvesting: it is an invasive plant
Black mustard	<i>Brassica nigra</i> (L.) K. Koch	Brassicaceae	It grows on sea cliffs, beaches or river and	Leaves are pungent and can be used to add flavour to dishes	The seeds were used for producing mustard, now substituted by B.

			stream banks. It can also be found in arable field and waste grounds		juncea
Chickweed	<i>Stellaria media</i> (L.) Vill.	Caryophyllaceae	Pasture, gardens, arable fields	Tops raw in salads	Very abundant. High content of Magnesium, Phosphorus, Copper, Vitamins C, b6, b12, D, A. Cut with scissors only the first 10 cm
Chicory	<i>Cichorium intybus</i> L.	Asteraceae	Road edges, path edges, waste grounds	Leaves used raw in salads like dandelion leaves or blanched to reduce the bitterness	Harvest before it flourishes
Common nettle	<i>Urtica dioica</i> L.	Urticaceae	Waste grounds, woodlands, pastures, gardens, river banks, roadsides	Very delicate flavour and texture. Through the heating, leaves are taken away the stings (they can be boiled, steamed, fried). They are very versatile: nettle risotto, nettle pesto, nettle as other greens in the pan, nettle soup	Very high content in proteins, Calcium and other minerals, vitamin C and beta-carotene. The tops should be gathered during spring or autumn, period in which they are more tender. Gather only the top 10 cm
Common poppy	<i>Papaver rhoeas</i> L.	Papaveraceae	On ground or arable fields (not treated with herbicides)	Leaves and petals are used raw in salads or boiled. Seeds can be used for bread or as additive in preparations	Used in Southern Europe until quite recently: boiled and served with olive oil. Cut the entire plant at the root with a sharp knife
Dandelion	<i>Taraxacum campyloides</i> G.E. Haglund	Asteraceae	In gardens, arable fields, road	Leaves are used raw in salads or boiled	Gather the whole plant from the root, do not separate the

			edges, meadows		leaves to let it last longer
Douglas fir	<i>Pseudotsuga menziesii</i> (Mirb.) Franco	Pianceae	Plantations, parks	Flavoured oil, syrup, infusion	Cut with scissors only the tops of the branches
Hogweed	<i>Heracleum sphondylium</i> L.	Apiaceae	Meadows, woodland edges, road edges	Leaves are steamed, boiled, fried or braised with other ingredients	Russian <i>borsch</i> was initially made with it, then substituted by beetroots. Cut the external leaves at the bottom of the plant with a knife
Ox-eye daisy	<i>Leucanthemum vulgare</i> (Vail.)Lam.	Asteraceae	Grassy areas: meadows, church yards, pastures, road edges	Leaves are used raw in salads, fried for tempura, cooked for a herb omelette, or blanched and served with meat	Cut with a sharp knife at the root. Take only the greenest plants
Rocksamphire	<i>Crithmum maritimum</i> L.	Apiaceae	Along the coast, rock cliff, on sand	Leaves are blanched and served with butter or chopped and cooked in the pan. Good in sauces, soups or with pasta	High in ω3 fatty acids. When winter is mild the plant continues to produce new leaves. Cut the tops with a knife
Sea aster	<i>Aster tripolium</i> L.	Compositae	Coast: salt marshes, coastal cliffs	Leaves are used in salad or as green vegetables: blanched and served with meat	Gather: change area every time, cut the tops of the plant with a sharp knife and leave the bad leaves on the plant. The gather can be really difficult because of the muddy soil
Sea beet	<i>Beta vulgaris</i> L.	Chenopodiaceae	Upper part of beaches, sea walls, and land close to the	Leaves can be blanched, boiled, steamed or cooked in the	It is the precursor plant of beetroots, sugar beet and mangle wurzel. Gather the leaves

			coast	pan with oil. Good paired with other ingredients like fish, chestnuts and apples	with a knife from the bottom, leaving some in each plant
Sea pea	<i>Lathyrus japonicus</i> Willd.	Fabaceae	Close to beaches	The young shoots can be used in salads or briefly blanched or fried in cooked dishes. The peas can be used raw or added to dishes like risotto or pasta	In the past it was consumed by nobles in Countries like France and Italy
Sea purslane	<i>Halimione portulacoides</i> (L.) Aellen	Chenopodiaceae	Salt marshes, sometimes on cliff and rocks	Used as a natural salt to dishes, or as a garnish. Very good cooked with roast potatoes	Gather only the first 15 cm of the plant. Leave the ones that have yellow leaves
Sea radish	<i>Raphanus maritimus</i> Sm.	Brassicaceae	Close to the sea, on the coast	Leaves are juicy and thick. They are good in salad, after being stripped from the stem. Good also as crudité. The seed pods can be preserved in vinegar	Gather: take some leaves of the plant
Sheep's sorrel	<i>Rumex acetosella</i> L.	Polygonaceae	Drier areas than common sorrel, especially in grassland. More common on acidic soils	Used in salad to add the acidic taste or as a garnish	Gather: cut the leaves at the bottom with a knife. Leave some in every spot
Sorrel (common)	<i>Rumex acetosa</i> L.	Polygonaceae	Meadows, open woodland,	Used in salad to add the acidic taste or as a	It grows in soils rich on Nitrogen. It can be gathered

			grassy banks, coastal grassland. Neutral slightly acidic soil but also alkaline ones	garnish	during the all year, cutting it at the bottom, because it will grow again
Sweet violet	<i>Viola odorata</i> L.	Violaceae	Hedge banks, open woodlands, churchyards	Used to make preparation like violet sugar or violet jelly	Cut at the root of the plant
Three cornered garlic	<i>Allium triquetrum</i> L.	Liliaceae	Open woodland, waste grounds, field edges roadsides	Good for salads. To give the garlic flavour chop it and add it to dishes at the end of the cooking to keep the flavour. If it cooks for long it will taste more like onion	The leaves are juicier, sweeter and have a milder taste than ramson (wild garlic)
Wild cabbage	<i>Brassica oleracea</i> L.	Brassicaceae	Coastal cliffs and beaches	Separate the leafy part from the stem and then cook the leaves. It can be chopped and cooked in a pan	They are nationally scarce so only take small portions of the leaves: cut with a sharp knife under the main head. Leave the bad leaves on the plant, it is not worth it to take them and throw them away later
Wild celery	<i>Apium graveolens</i> L.	Apiaceae	Near salt water: on salt marshes or by rivers	Stem and leaves can be used as an aromatic herb in dishes like soups, stews broth and sauces. Raw in salads	Wild precursor of the cultivated celery (that was selected for its bigger stem and cultivated in the dark to keep it white). It has a more characteristic taste than the cultivated one. Pull it with the

					hands at the bottom of the stem
Wild chervil	<i>Anthriscus sylvestris</i> (L.) Hoffm.	Apiaceae	Woodland, road edges, meadows	Add the leaves to salad or to roasted vegetables. It can be used for replacing parsley	Abundant wild food. It is though important to learn to recognise it well and distinguish it from a very similar poisonous species
Wild fennel	<i>Foeniculum vulgare</i> Mill.	Apiaceae	Sea walls, coast sides and marshes	Leaves can be used to flavour salads or paired with white fish and sea foods. It can be also used to flavour oil. Seeds are used for bread or as additive to preparations	It has a particular aniseed flavour. It has to be cut before flowering so that it will produce a second stem with leaves. Picking flower can also promote a second crop
Wild radish	<i>Raphanus raphanistrum</i> L.	Brassicaceae	Arable fields, waste grounds or road sides	The leaves have a cabbage-like and spicy taste. Similar use to charlock: in Anatolia they are boiled till soft and served with yogurt, garlic and lemon juice	It has a finer taste than the sea one, but many people prefer the sea variety because of its bigger and thicker leaves. Gather the entire plant from the root (like chicory)
Wild watercress	<i>Rorippa nasturtium-aquaticum</i> (L.) Hayek	Brassicaceae	In water: rivers and ditches	Leaves and stem can be used raw in salads and cooked in soups. Very good also paired with fish or meat	It is considered to be a super food: source of Vitamin E, Iodine, Manganese and Sulphur. Gather the first 25 cm and consume on the day to have it fresh and crunchy
Wood sorrel	<i>Oxalis acetosella</i> L.	Oxalidaceae	Moist woods, where there is much shadow	Leaves are used in salad to add the acidic taste or as a garnish	Do not take the root, brake it on the stem

Yarrow	<i>Achillea millefolium</i> L.	Asteraceae	Gardens, fields and other grasslands	The leaves are added to salad or sprinkled for decorations. They can also be used to make refreshing teas or to add flavour to sauces. Flowers are used for teas	Traditionally used as a healing herb. Cut the bottom of the leaves with a sharp knife, leaving some plants untouched
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Table 1 Plant biodiversity in Kent region.

Fonts:

- Irving, *The Forager Handbook*, *op cit*.
- *A working list of all plant species* (2013), The Plant List, viewed 15 November 2017, < <http://www.theplantlist.org/>>
- Wikimedia Foundation (2017), *English Wikipedia*, Wikipedia, The Free encyclopedia, viewed 15 November 2017, < https://en.wikipedia.org/wiki/English_Wikipedia>



Figure 4 Sea Aster plants in Kent, photo by the author.

In the following table, algae species are reported.

They are separated from the other plant species because they have not been gathered in October, since the main algae gathering period is from January to May. As I have only been there in October, I have taken seven algae species already dried to bring an example of the algae biodiversity, that is normally underrated. In this case, since I have not had a direct gathering experience, I have taken the main pieces of information through the consultation of Miles Irving book, internet websites and questions to the team members.

Plant name	Scientific name	Family	Habitat	Use	Notes
Bladder wrack	<i>Fucus vesiculosus</i> L.	Fucaceae	Along cold coastal areas. It grows on rocks	Used to treat thyroid and goitre. Used in the West and in China to cure many remedies	Antibacterial, antiviral, and hypoglycaemic activity. High Iodine and anti-inflammatory mucilage content
Carrageen	<i>Chondrus crispus</i> Stackh.	Gigartinaceae	Along cold coastal areas	Used as a thickener in ice creams, milkshakes and processed foods	It has a high amount of polysaccharides that provide the thickening characteristic. It has also a stabiliser and setting action
Dulse	<i>Palmaria Palmata</i> (L.) F. Weber & D. Mohr	Palmariaceae	Along the coast, usually on rocks		
Eggwrack	<i>Ascophyllum nodosum</i> L. Le Jolis	Fucaceae	Along the coast, in sheltered rocky seashore. It can reach till two meters of length. Often found together with Bladden wrack		Gather: use a sharp knife and cut only the tops. Spread the picking around. Pick only a bit here and there. The same method is used for all the algae varieties

Laver	<i>Porphyra umbilicalis</i> (L.) Kützinger	Bangiaceae		Laver bread: boil the fronds for several hours	Seaweed used for wrapping sushi rice
Thongweed	<i>Himantalia elongata</i> (Linnaeus) S.F. Gray	Himantaliaeae	Along the coast, usually below toothed wrack	It is dried or pickled in France. It can also be fried and served with fish	
Toothed wrack	<i>Fucus serratus</i> L.	Fucaceae	Along the coast. It grows on rocks	It is normally cooked for long time with other ingredients that require long cooking time. Fronds can be dried, toasted and used as a condiment	

Table 2 Algae diversity in Kent region.

Fonts:

- Irving, *The Forager Handbook, op. cit.*
- *A working list of all plant species* (2013), The Plant List, viewed 15 November 2017, < <http://www.theplantlist.org/>>
- Wikimedia Foundation (2017), *English Wikipedia* Wikipedia, The Free encyclopedia, viewed 15 November 2017, < https://en.wikipedia.org/wiki/English_Wikipedia>
- Turi G. (2017), *The wrack - edibility, identification, distribution*, Galloway Wild Foods, viewed 10 November 2017, < <http://www.gallowaywildfoods.com/the-wracks-edibility-identification-distribution/>>
- Hallnet (2017), *Bladderwrack benefits*, Herbwisdom.com, viewed 10 November, < <https://www.herbwisdom.com/herb-bladderwrack.html>>

5.1.5. *Way of communicating and spreading the knowledge*

Forager impact is mainly focused on chefs action: the wild ingredients that they provide them are then transformed into elaborated foods and served to costumers. Forager has slowly influenced the way many chefs prepared food: new tastes, textures and elaborations have been introduced through the adoption of wild food ingredients and many of the chefs showed a raising awareness about wild ingredients after trying them.

Even though they mostly sell their ingredients to restaurants, they try to enlarge the communication to other public members in different ways.

- Direct interaction: when out picking, members of public see their activity, ask questions and directly interact with the foragers. They become aware all of the sudden that there is food in that place.
- Internet: they share the knowledge through their website and social media, even though they are convinced that it will never be as effective as the direct teaching to people. According to Ross Evans, the best way to spread the knowledge is from people to people. “It takes really long time to look through a book, identify the plant, know that you get the right one and how to eat it. Whereas the way that things happen with people to people is very quick. Somebody takes you out, shows you the plant, says you can eat it and suddenly you know that plant. That is the way we have always done these things: with someone saying you can it this and putting in his mouth, you get immediately confident and do the same thing”⁸³.
- Courses: they tried to organize foraging courses as a side activity but it never really took off. “People would come down. You would take them out for a day. In that day you might show them 20 to 50 plants and realistically at the end of that day they probably know none of the things that you have showed them. You have inspired something but you haven’t really taught them anything. You cannot replace life experience with a six hours foraging course. It is like teaching a language in a day”⁸⁴.

The inefficiency of this courses is due to the weak interaction that they create: too much information in such a short period of time. To solve this problem, they are planning to offer some long term courses (one year long): “people come down once every month, and

⁸³ R Evans (2017), personal communication, 19 October

⁸⁴ *Ibidem*

at the end of the year they will actually know something and actually go foraging”.⁸⁵ The main aim is to pass plant knowledge in a wider perspective, connecting every plant to its environment and season. “If you come in spring, you would be able to go foraging for the next two weeks. But when summer comes, you will not know what to pick any more”.⁸⁶

- Children education: they tried to offer some activities in the elementary school but they noticed that they were not so effective. The main problem is that parents do not trust their children knowledge and they will not allow them to eat that determined plant. The best education would be with both parents and children, so that they can both grasp the message.
- Work experience: they encourage people to go and work with them, from chefs to gastronomes to students. “The most important and significant is the effect that we have here: everybody who had come and worked here, gets connected in the way the no other people do. They acquire much bigger volume of knowledge because they get to know all of the plants that we are dealing with in a more in depth way. They could restore the connection that has been lost and become a regular part of their life and their children will get that connection as well, by seeing them picking”.⁸⁷

5.2. Club Amici Valchiusella

5.2.1. Socioeconomic geographic introduction

Valchiusella is a valley in the province of Turin (Piedmont, Italy), situated in the High Canavese, taking its name from the river *Chiusella*, that runs through it.

The valley is divided into 12 municipalities and 13 parishes and two valleys: the Upper Valley with the municipalities of *Traversella*, *Vico Canavese*, *Brosso*, *Meugliano* and *Trausella* and the low Valley with *Rueglio*, *Alice Superiore*, *Pecco*, *Lugnacco*, *Vistrorio*, *Vidracco* and *Issiglio*.⁸⁸

Although the valley has less than 5000 inhabitants, there are two banks and 12 postal offices, an important indicator that shows how people are used to save money.⁸⁹

⁸⁵ *Ibidem*

⁸⁶ *Ibidem*

⁸⁷ *Ibidem*

⁸⁸ *Paesi* (2017), Valchiusella.org, viewed 10 October 2017, <<https://www.valchiusella.org/>>

⁸⁹ L Lancerotto (2017), personal communication, 2 November

“Terra ricca di storia e di cultura, con una natura ancora incontaminata ma al contempo viva e vissuta”⁹⁰ (“land rich of history and culture, with an uncontaminated nature but at the same time alive and experienced”⁹¹), the Italian periodic *La Stampa* well defines this Valley, where culture and history are deeply rooted and nature is the main resource to sustain the population. A territory shaped by the combination of mine and farmhouse, through which men and women have always known how to preserve what they had.

Besides the high biodiversity of the area, the richness comes mostly from the inhabitants. They live in harmony with the territory: the rhythm of seasons determines the kind of activity and mansion that people have to do.

Every product of the land is used and nothing is wasted: in spring there are the herbs, in summer the flowers and in autumn the forest products (leaves for the animals, chestnuts for people, husks to be burnt in the stove and wood to be burnt or used for furniture).

Everything is still naturally biologic: chemical fertilizers and pesticides are not used anywhere in the Valley. The main resource are the meadows, their herbs and flowers. People are aware of this richness and behave in the greatest respect for it. The relationship with animals is at the same level as with humans: they have their names, they live outdoors, they are free.

Here biodiversity is not only mentioned, but articulated in all its facets: the biodiversity of the minerals,⁹² of the insects, of the plants and of the hand. Laura Lancerotto, the President, well explains in the introduction of the book how these elements are all embedded in everyday life in form of culture: “Il quotidiano, sempre più complesso e mediato da esigenze e da interazioni diverse e complementari, diviene, così, cultura. E la cultura muore solo quando non si dialoga più con essa”.^{93,94} Culture and tradition are and have always been strongly present among the inhabitants of the Valley.

This is mainly thanks to the essential contribution of an enlightened man that, in the years of the economic boom, offered job opportunities in his industry without people having to leave their land. This man, Adriano Olivetti, organized the time shifts so that people could keep on working on their territory, he offered transport service that could bring people back and forth and he fully respected workers exigencies related to the territory (he would leave people at home in the period of the hey making).

⁹⁰ Meridiani Montagne (2015), Traversella Valchiussella, la “valle obliqua” dei romani, *La Stampa montagna*, viewed 10 October 2017, <<http://www.lastampa.it/2015/12/04/societa/montagna/localita/traversella-valchiussella-la-valle-obliqua-dei-romani-L1Cua3An1DW1rUtFIt637N/pagina.html>>

⁹¹ *Ibidem*

⁹² It has been demonstrated through a drilling the high concentration of minerals in such a small portion of soil.

⁹³ Lancerotto, L. (2010), *Presentazione* in Biava, B., Lancerotto, L. (2010) *El Sabat d’le Erbe. Alla riscoperta delle erbe spontanee della Valchiussella*. Ivrea, Club Amici Valchiussella, p.2-3.

⁹⁴ “Everyday life, that is more and more complex and mediated by different and complementary interactions and exigences, becomes culture. Culture dies only when you do not dialogate anymore with it”

This phenomenon has been the key factor that in part avoided the process of mountains abandoning (even though it partially happened: from 13,000 to 5000 inhabitants), like has happened in many other areas in Piedmont, due to people moving from mountains to cities in search of work.

As a consequence, the connection with the land remained intact and alive: traditional activities and practices kept to be done as a fundamental part of the sustaining of the family. It is for this reason, thanks to the continuous practice of the inhabitants, that this Valley preserved so well its biodiversity and natural heritage.

5.2.2. *Association history and mission*

The Association Club Amici Valchiusella was founded on the 26th December 1957, with the aim of preserving and promoting the territory in respect of its tradition and history. As Bruno Biava (one of the founders of the association) explains, during an interview conducted on 2 November 2017, it was born as a mountain community, with the aim of revaluing the mountain as a tourist destination, in contrast to the *Alpine Club of Ivrea* that was promoting as main trekking destinations the richer and famous mountain such as *Cortina* or *Courmaieur*, where “also the snow has a brand”.⁹⁵ Their first idea was to call it Alpine Club of Valchiusella, but to lower the contestation they called it *Club Amici Valchiusella*.

So they started their work, both active on land and people: they renovated an alpine refuge, recuperated and advertised the mountain paths and started to communicate with people, in order to include them as a contribution to a better revaluation of the mountain, through their important memory. A memory that encloses more than hundred years, fruit of a passage from generation to generation; stories and knowledge that were already told by the grandparents of the grandparents, that bring with them a profound respect towards their home and beloved land. Through these dialogues, a familiar friendship and mutual help developed, helping each other in necessity moments. It is through this continuous interaction with territory, people and knowledge that the topic of wild herbs came out. Their use is rooted in people memories, that have always used them for their first necessity, leaving most of them ungathered, to avoid any loss.

The collaboration of Bruno Biava, that “knows the land in its folds, and the people in their soul”⁹⁶ and Laura Lancerotto, a woman coming from Veneto that suddenly fell in love with the Valley,

⁹⁵ L Lancerotto (2017), personal communication, 2 November

⁹⁶ *Ibidem*

gave birth to the activity with the herbs. In 1990 *El Sabat d'le Erbe*⁹⁷ was born, an educational activity that was able to combine the knowledge of the territory with a rediscovery desire, typical of that period.⁹⁸

In order to arrive at the promotion of these guided walks aimed at rediscovering the wild herbs, a long and slow path was taken, in which passion, observation, sensations, everyday life experience with farmers and shepherds were put together with the aim of enriching the wisdom, “with the same curiosity and contemplation of the flora as when you arrive on the peaks of your Valley”.⁹⁹

The idea was to have the farmers as the main protagonists, since they knew not only every single herb, but also the history of the territory. Starting from what the community used to gather, they implemented by getting to know other herbs in the territory. As Laura explains: “the local people only knew the herbs that they needed, because the others had to be left there”.¹⁰⁰ They discovered the others, or better they were already known but they started to use them.

A catalogue of all the scientific and historic data was carried out combining old and new knowledge.

In collaboration with the *Agrarian University of Torino*, chemical analysis have been conducted to prove the chemic components and the active principles present in the herbs, but not only. They went deeper in analyzing the milk to understand how many active principles were passed to it, and the plates, to find out the better ways to prepare them without losing these compounds.

Furthermore, they took into account the taste of different milks and cheeses, to understand the variation according to different herbs eaten by animals in distinct meadows: “a meadow can give a milk that is different from another one. Even though the herbs are the same, their concentration varies and the effect is perceived in the cheese”.¹⁰¹ This variability is also passed through the hand and the knowhow: every cheese producer follows the disciplinary, but it is the little things that make the difference in the quality of the product.

They have also focused their effort on historic documents, seen as a way to improve present and future knowledge. They keep these documents in a house, called *Ca'del temp* (house of time), in which they are protected and consulted with extreme care. An example are the *Statuti minerari* (the mine statute): documents from the 1600 that were regulating the population working activities during the course of the year (going from a religious festivity to another). Bruno, that worked on

⁹⁷ “The Saturday of the herbs”

⁹⁸ L Lancerotto (2017), personal communication, 2 November

⁹⁹ Biava , B. (2010) ‘La nascita di un’idea’ in Biava, B., Lancerotto, L. (2010) *El Sabat d'le Erbe. Alla riscoperta delle erbe spontanee della Valchiusella*. Ivrea, Club Amici Valchiusella.

¹⁰⁰ L Lancerotto 2017, personal communication, 2 November

¹⁰¹ *Ibidem*

these documents for 30 years, brings the example of the *Roide*: obligations for every inhabitant to do maintenance manual works, instead of paying the taxes.

Two main concepts were at the base of these statutes: resources maintenance (mines work was only done during two winter months and the rest of the year was dedicated to other maintenance jobs) and work flexibility (work followed necessity: in the hey period everybody was making hay, in the chestnuts period everybody was gathering chestnuts and so on). These rules allowed to survive with the resources that were present on the territory, strengthening the community.

They strongly believe that these documents have to be protected and illustrated to find better ways to manage the land: “it is a matter of going and see how territory was once managed to improve present and future conditions”.¹⁰²

Another project they are carrying out in collaboration with Professor Cavallero from the *University of Torino*, is the recovery of common lands for their reuse in herb collection, whose rights of use were once ruled by local customs. Customs that are still valid but that lost their meaning: they were guaranteeing the use of these lands as pastures, that have now turned into forests, due to the gradual abandon after the 1800.

The Association was born with the mission of valuing the mountains, their resources and their people. During the years the objective of education emerged: knowledge was not only to be recuperated, but also to be transmitted, benefitting both the locals and the other people willing to learn more about wild herbs. They believe that wild food, a product that is normally considered like a poor ingredient, is really important for the relation that it creates: “you enter in synchrony with the herbs, you have to know how to gather and use them, how to wash them, how to blow the flowers”.¹⁰³ All these “microknowledges” are passed to the people attending the courses as a way of giving importance to the territory and to these practices.

Their foraging is far from being a trend: it is highly rooted in the culture and the tradition of the place, it starts from the respect of local people and territory to return them the dignity and pride of what they are doing.

The current mission is to increase the production. This does not mean to duplicate it, running the risk of overharvesting (as it is happening in Aosta Valley where helicopters go and take enormous quantities of alfa alfa), but instead *quantum satis* (far enough) to ensure territory resilience, for example by transplanting some plants in a territory that is highly suitable for that particular species. They want to maintain the existent resources and improve them.

¹⁰² B Biava (2017), personal communication, 2 November

¹⁰³ L Lancerotto (2017), personal communication, 2 November

5.2.3. Education

As I said before, education is one of the main mission of the Association. An education not only focused on the herb teaching, but that provides an holistic vision of the territory. This means that the main topic is wild herbs, their use in nutrition and in medicine, but they are a way to value the territory and remind the need of respect for that precious land.

This guided walks give voice to local, simple mountain people, that, behind their humility, hide a great and deep knowledge. They are called *magistri d'ij erbe* (from the Latin *magister*: teacher) and they are the pillar of “El sabat d’le Erbe”: “sono l’anello di congiunzione tra passato e attualità, tra cultura materiale e cultura botanica”¹⁰⁴¹⁰⁵, they conduct the courses bringing people all around, through meadows, forests, pastures, hamlets and farmhouses, and “telling the tale of Valchiusella”.¹⁰⁶



Figure 5 Saturday walks guided by the *Magistri d'ij erbe*, photo by Laura Lancerotto.

¹⁰⁴ Lancerotto , L. (2010), ‘Presentazione’ in Biava, B., Lancerotto, L. (2010) *El Sabat d’le Erbe. Alla riscoperta delle erbe spontanee della Valchiusella*. Ivrea, Club Amici Valchiusella, p.2-3.

¹⁰⁵“They are the interface between past and present, between botanic and material culture”

¹⁰⁶ Lancerotto L., ‘Buon Compleanno, Sabat d’le Erbe’ in Biava, B., Lancerotto, L. (2010) *El Sabat d’le Erbe. Alla riscoperta delle erbe spontanee della Valchiusella*. Ivrea, Club Amici Valchiusella.

Behind these courses there are great organization skills to ensure their success and efficacy. The inscription starts with a phone call with the President Laura Lancerotto, that takes time to talk with these people, in order to understand their interests, personality, background, cultural level and divide them in groups, to allow a closer contact with the magister.

The courses consist in a walk where people are led to experience the territory without picking anything. This implies that the magister shows the herbs and transmits all the knowledge about them so that people will have the chance to gather them once they have returned at home. As Laura explains :“If everybody gathered the herbs there would not be any more for people coming next”. The extreme respect is also passed through these decisions: listening and observation are developed, instead of action and impulse.

Sight, hearing, smell, touch and taste are all triggered in different moments of the activity. During the walk, people are led to examine and listen to nature, to notice the smallest peculiarities that characterize every herb and differentiate them from each other. After the walk a dinner is prepared by the *magistri* with wild herbs and traditional recipes. In this occasion people can taste, smell and touch the products seen before.

This involvement of the senses is fundamental in every kind of education: we all have different learning channels, that are more or less developed. This is why it is important that every experience passes through all these channels to let everybody have a wider and deeper learning, which can be more effective and last longer in the memory.

Local traditional products are offered to people in the break during the walk, as a way to promote the productions of the Valley.

The contest is also essential: people are greatly influenced by the atmosphere and by all the external factors that surround the moment. The fact that the Association spends so much effort in guaranteeing a special treatment to whoever joins the activity, in terms of taking care of every individual, witnesses the great success of these courses.

During the course, many fundamental points are touched: sustainability combined with ancient knowledge, respect for nature and for the self, attention and care, time and natural rhythm, seasonality and km0, all topics articulated around the richness of the herbs.

These topics fit properly the Slow Food philosophy, that is also present in the territory as *Condotta Valchiusella*.

They created the figure of the ecological tourist, that enjoys the beauties of the territory, experiences the land in a whole way and goes back home different from before. But what they are working on, is to have the figure of the traveler of other times, who brings away a set of things and

comes back. They have already seen this and work to promote it as much as they can. Over 100 people that attend the course, 40 people have already been there. The way the course are promoted is through articles on magazines and most of all through people and their word of mouth. The impact that they had is really large: in 25 years they touched a total of 55000 people. Despite the fact that they are a small Association, this number is the result of the great work, passion, strength, firmness and dedication of these people.

Their work reflects the communitarian spirit of the valley: collaboration is the main element at the base of their success. Every member of the community does not only work for himself, but always in function of the others. They share the same values, rules and principles that make possible an harmonious development, from which everybody can benefit.

What the Association took from the community and the territory (people knowledge and resources) has been returned enriched in form of tourism, improvement of local economy, respect and above all dignity. People are proud of their work, that is no more seen in a negative way, but instead as a cultural heritage to defend and preserve.

In this way wild food is at the centre of a series of processes: from one side the magistri and the local population value their territory, deepen their knowledge, are proud of being able to transmit their skills and are compensated with an economic return; on the other side the attendants, through an emotional and sensory experience, acquire new knowledge and reestablish a link with nature. The human relationship built between these two components is enriching for both of them.



Figure 6 Interaction between Magister and attendants during the course, photo by Laura Lancerotto.

5.2.4. *New perspectives*

From the simplicity of the activities offered, they have been able to create something unique and have come out with a very wide vision. They aim at creating the *Università diffusa* (diffuse university) that could guarantee this passage of knowledge to future generations.

The main objectives of this university are:

- save and preserve what is now in the memory and everyday practice: starting from the know-how and being aware of what was done and the reason why it was done. It is the recovery of tradition that becomes embedded in every individual, where innovation never weakens the assessed values¹⁰⁷
- bridge the gap between generations: “every times an old man dies, an history book dies as well”, if he has not been able to narrate his history. Make possible this fundamental passage of knowledge, by using it in everyday life and avoiding its disappearance¹⁰⁸
- promote the “Civil Food”: a food that has the “citizenship right of the territory”: a food made with love of the land, with respect and which creates a relationships with the territory but most of all with people.¹⁰⁹

This university, through preservation of oral memory, landscape management teaching and complementation of theory with practice, could create a new approach towards nature that is at the base of a sustainable system, in which old practices become a lesson for the present.

5.3. Comparison between the two platforms

These field studies provide an example of two foraging platforms that are both situated in a rich land with high biodiversity but with completely different objectives, patterns, and relationship with the territory and people they operate in. Through their analysis, I will provide a comparison taking into account different aspects.

¹⁰⁷ L Lancerotto (2017), private communication, 23 November

¹⁰⁸ *Ibidem*

¹⁰⁹ *Ibidem*

5.3.1. Relationship with the territory

Forager operates on the territory in an active way in the use of its resources: they gather both from public and private land (through specific deals with the farms). The products are gathered in a sustainable way so that plants will regenerate in a faster way and biodiversity will be preserved. Through the gather they have a positive action on the territory, by promoting the ecosystem productivity and spreading wild plants through seeds and plants sprinkling.

Club Amici Valchiusella instead works exclusively on public territories, but without gathering, in order to guarantee a steady presence of the herbs in the territory. Having many people attending the course, they could not let everybody gather in a that small portion of land, risking to deplete the resources. They maintain the biodiversity of their territory through the managing practices that the community has always done and still does, to keep and preserve the potential of the land.

5.3.2. Relationship with locals

Forager started from a difficult situation in terms of wild food knowledge. They reintroduced it: through books and specialist consultation. Forager, in its work, does not include local people that much: they gather guided by their high level of knowledge and products are sold to restaurants and few consumers in London.

Resources are taken from the territory, but an interaction with locals is missing. Furthermore, the income they gain with their work is exclusively poured into the company, without providing a benefit to the territory and to people living in it (except for the private properties that are given a small amount of money for every kg gathered in their fields).

Through many interviews that I carried out in the Kent area, I realized that almost nobody among local people was aware of the existence of the foraging company and none of them was used to gather any of the plants used by Forager. It is clear that they were not given the possibility to interact with them.

Club Amici Valchiusella shows instead an inverted process: from people to people. They started from people knowledge to enrich it and spread it and the advantages derived are all distributed on the territory and their people. The community members are the main protagonists of the Association work, by running the courses, providing local products and cooking for the people that attend the course. The Association is mainly making these connections possible and helping local people to spread their knowledge. Without the community they could not offer an activity like that and it is to them that they own this great success.

5.3.3. Spread of knowledge and wild food accessibility

As mentioned above, Forager started from zero, from an arid terrain, not in term of resources but in term of knowledge. The fact that they had to rediscover these gathering practices turned them away from local people and isolated in another dimension. Even though their main mission is to have more people to eat wild food, they tend to address it to a more restricted group of people, in the sense that they prioritize the commerce to restaurants and its elitist consumption. They did start to sell to other people and to do some educational activities, but price is always a big limit. Ingredients are expensive for the high amount of time spent to search and gather them and only high level restaurants can afford to purchase them.

There are two separated realities: Forager and high level restaurants that are dealing with wild food and local people that do not know about the existence of these resources on their territory. There is not exchange and interaction. Integration is needed.

Club Amici Valchiusella, has started instead on a fertile soil, both in term of resources and rooted knowledge, following a path of cooperation: knowledge and expertise sharing between community members and the association has brought to the formation of these courses and has increased the awareness of what was being done. The Association placed itself at the same level of people and worked together to promote and pass that knowledge that they had recuperated and enriched together. As a consequence, it is well rooted in the territory and its proper functioning is highly dependent on land and people wellness.

Their range of users is wider since they operate in the education sector and their courses are a good way to spread wild food knowledge. Impact is thus larger because they can reach different segments of society: from the direct involvement of locals in the activities to the attendants of the courses that get to experience every aspect behind wild food and sustainability.

They did not bring anything new, they only helped traditional practices and culinary preparation to be transmitted to other people and to next generations in order to avoid their loss and promote the diffusion in other places.

5.3.4. Social impact

After having analysed the different nature of these two foraging realities, their social impact is to be considered. Different ways of working and different costumers targets have led to distinct results in social terms.

Forager works in the restaurant channel: through the intermediation of chefs a new taste has been developed towards the research of pure and simple ingredients, different from the usual cultivated ones. This influences the restaurant guests, through surprise, discovery and taste of new ingredients and flavours.

However, its social impact is a process still in the course of becoming: not such a wide sector of society has been reached (only who can afford these restaurants is touched) and the message that is passed is in part characterized by superficiality. This means that no solid link with the territory is established due to the fact that wild ingredients are gathered in Kent and sold in London, two different areas, and people that consume this food only represent a part of society and do not experience to gather it.

Through the door to door delivery in London, a new branch of society is served: the public sphere. In this way, a wider part of population can be touched, but the social impact remains limited by the distance of consumers from the origin of the wild ingredients, from the direct interaction and the practice of their gather. Only through activities on the territory this impact can be broadened, such as sell in local markets and direct involvement of locals through activities and initiatives.

On the other side, Club Amici Valchiusella has already a consolidated and structured impact on society. The effectiveness of their efforts in spreading wild food knowledge is proved by the activity that they promote: they are active on the territory and, through the direct involvement of locals, they guide people towards the experience of the territory and its wild resources. In this manner, a deep connection with the land is established and people are given the possibility to experience wild food both knowledge and taste wise, and are provided all the tools to apply what learnt at home.

This Association has brought to light two fundamental factors that are at the base of great social results: the direct involvement of local people and their interaction with the course attendants. There is no better way of learning than from who has always dealt with these foods during all his life; the knowledge is passed without any intermediary and arrives straight at people's interests. A total of 55,000 people have been touched through their activity in 25 years: a number that explains a lot and exemplifies how effective an Association can be, in its smallness, in creating a net and connecting people through the spread of knowledge.

6. DISCUSSION: HOW TO MAKE WILD FOOD ACCESSIBLE TO EVERYBODY?

As it has been previously analysed, nowadays wild food is at the centre of a problematic contradiction: born as food for poor people because freely accessible to everybody, it has become in the 21st century an elite consumption. Foraging is now a trend, a way for most of the restaurants to elevate their status, and it is often accompanied by a business and utilitarian vision. Such a food, that is within everybody's reach, that is free to pick, that we can find everywhere has become income dependent and few people can access to it.

The main question is: how can we promote a sustainable model of gastronomy based on wild food accessible to everybody?

After having analysed the two study cases that cover the commercial and educational sides of foraging, and their differences related to their impact on raising people awareness, I deduced two main elements that strongly influence wild food access: land access and knowledge. These two components are intertwined and if one of these misses, the other becomes useless.

As a consequence a new social model has to be developed that manages to put together these elements passing through three main steps: guarantee the access to common land, start from the community model and share the knowledge, allowing everyone to participate in the process.

6.1. Access to common land

Foraging brings with it a dilemma that distinguishes itself from all other activities: the use of common goods. The main issue is to analyse how these goods and common lands can go back to the community. By digging into the use rights phenomenon, a better understanding of their articulation can be provided.

In this respect, it is necessary to mention some actors in the social studies that debated about the positivity or negativity of these collective properties.

Important is "The tragedy of Commons" written by the American ecologist and philosopher Garret Hardin, that was strongly influenced by many philosophers and economists that had already looked deeply into the subject, aiming at demonstrating the impossibility of men to use common resources without damaging eachother.

Aristotele in his *Politics* assumed that: “What is common to the greatest number has the least care bestowed upon it. Everyone thinks chiefly on his own, hardly at all of the common interests” (Politics, Book II, Ch 3).¹¹⁰ Famous in this thinking stream is also Hobbes’ parable of men in a state of nature: men seek their own good and end up fighting one other.¹¹¹ As well as William Forster Lloyd’s pamphlet entitled *The Economic Theory of a Common Property Research: The Fishery* in which he reports the “improvident use for property owned in common” and Gordon’s thoughts: “there appears then, to be some truth in the conservative dictum that everybody’s property is nobody’s property. Wealth that is free for all is valued by no one because he who is foolhardy enough to wait for its proper time of use will only find that it has been taken by another.” (Gordon 1954)¹¹².

Finally Hardin’s tragedy, published in 1968, is the result of the influence of all these previous scripts articulated in modern times. His tragedy refers to the overexploitation of common land due to the free management of individuals on this land: “Each man is locked into a system that compels him to increase his herd without limit - in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all”.¹¹³ According to his words, man freedom is to be avoided and the only solution is to limit his use rights through for example the privatisation of pasture land, limiting and excluding the users from its management. Only in this way the “tragedy” could be avoided.

On the other side of the coin, Elinor Ostrom, Nobel Prize for Economics in 2009, counters these theories in her main work *Governing the Commons* (one of the most influential script in social sciences) and, with empirical demonstrations, she seeks to prove the possibility and the necessity of a “development of an empirically supported theory of self-organizing and self-governing forms of collective action”.¹¹⁴

Introducing the term *common-pool resource (CPR)* she refers to “a natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use”.¹¹⁵ These collective properties, are neither private nor open access and the users are a community of people, most of the times local communities, that arrogate the right to exclude from the use of the good those who are not

¹¹⁰Ostrom, E. (2015) *Governing the commons. The evolution of Institutions for Collective Action* (Canto Classics). Cambridge, Cambridge University press, [ebook], position 317.

¹¹¹ *Ibidem*, position 324.

¹¹² *Ibidem*, position 324-330.

¹¹³ Hardin, G. (2001) The Tragedy of the Commons. *The Social Contract*, p.29.

¹¹⁴ Ostrom, *Governing the commons, op. cit.*, position 767.

¹¹⁵ *Ibidem*, position 851.

members.¹¹⁶ In her analysis, she focuses on small scale CPRs, whose persons are heavily dependent on for having an economic return. They are “inshore fisheries, smaller grazing areas, groundwater basins, irrigation systems and communal forests”.¹¹⁷

She argues “the presumption that individuals cannot organise themselves and always need to be organised by external authorities”, by sustaining that individuals always solve problems in the most effective way.¹¹⁸ In opposition to Hardin’s individualism (in his herder’s model each individual decides without concern to the effect on other’s actions), the concept of “interdependence” emerges, according to which individual’s choices must take in consideration other individual’s. She strongly believes that CPR can be managed in an harmonious way among users: “because the individuals involved gain a major part of their economic return from the CPR’s, they are strongly motivated to try to solve common problems to enhance their own productivity over time”.¹¹⁹

Elinor Ostrom shows the importance of the existence of common lands, as the main sources of income of small communities, that can be better managed by interdependent individuals of the community, rather than by institutions that impose their power on them. If individuals depend on the CPRs, they will find the best solutions to benefit from them in a fair manner without either damaging other individuals and the land resilience.¹²⁰

In fact, these common lands are at the base of the sustainable management of the land: people are involved in the use of their resources and are pushed to preserve them through positive management practices.

If we look back at the history, land was initially commonly managed and everybody was responsible for its maintenance.

These rights are present in Europe since medieval times, originating from concessions of feudal lords, kings, imperators and church power. The most important are : *Usi civici* in Italy, the *Gesamthandseigentum* in Germany, *La loi stradae* in French Catalonia, *Common lands* in England, *Baldios* in Portugal, *Mir* in Russia, *Township* in Scotland and other similar forms existing in Norway, Holland, in the Balkans, France and Spain, as well as in other extra-European Countries, such as India, South America, Australia.¹²¹ Even though they are fragmented and their specific patterns and regulations are different and adapted to the territory they are applied to, they

¹¹⁶ *Ibidem*

¹¹⁷ *Ibidem*, position 781-789.

¹¹⁸ *Ibidem*, position 760.

¹¹⁹ *Ibidem*, position 789.

¹²⁰ *Ibidem*

¹²¹ Fonatanarosa, F. (2016) Proprietà collettive e risorse naturali: un nuovo modello proprietario per la gestione sostenibile dei commons, *Ambiente, energia, alimentazione. Modelli giuridici comparati per lo sviluppo sostenibile.*, 1, p.212.

all share the same principle: “natural resources owned and managed collectively by a community or society rather than by individuals”.¹²²

Among these, major attention will be given to the English commons and to the Italian rights of use, first because they had a parallel evolution and second because they are the two Countries in which my study cases are located.

The English *Common Lands*, that are one of the most ancient common land management model, originated during the late medieval period: part of local population (*commoners*) was allowed to use some lands that were considered manor waste, since non cultivable lands. Commoners were guaranteed rights of use on these lands for activities aimed at their sustenance. The correct use of these rights was regulated by a feudal tribunal and customary rules, that aimed at guaranteeing a pacific coexistence among commoners and commoners and the feudatory.¹²³

It is in the 16-17th century that the enclosure movement led to a progressive privatisation of the commons that excluded many people from the use of their land. However, they did not completely disappeared, as some of them were conceived as sources to be protected.¹²⁴

Registration efforts have been attempted, such as the *Common Registration Act* (1965), not so effective, and the most recent *Commons Act* (2006). This last Act provided the valorisation of this associate management model through the Commons Councils, that are responsible for the “rational, sustainable and pacific management of the commons”.¹²⁵ They represent the entire community and they have to ensure the achievement of high standard of environment protection through the acceptance of environmental deals, whose content is determined through mechanisms of participative democracy.¹²⁶

This bottom up governance model responds to the different exigencies of individuating shared rules and promoting their respect. In this way commoners are no more aware but real protagonists of environment protection policies and common lands are valued not only from their productive point of view but also from their historical cultural point of view.¹²⁷

In Italy, these rights are called *Usi civici*.

Their origin is really ancient: in some regions it dates back to pre Roman times, in others they were introduced by the German populations. Many activities were included in these rights of use:

¹²²United Nations Statistics Divisions (2001), *Glossary of Environment Statistics*, United Nations, viewed 10 November 2017, < <https://unstats.un.org/unsd/environmentgl/default.asp?mysearch=common+lands&x=0&y=0> >

¹²³ Colabrò, M. and Simonati, A. (2017) Gli usi civici nel contesto del patrimonio culturale: per un nuovo paradigma giuridico dei demani collettivi, *Ambiente, Energia, Alimentazione, modelli giuridici comparati per lo sviluppo sostenibile*, 1, 112-119.

¹²⁴ *Ibidem*

¹²⁵ *Ibidem*, p. 115.

¹²⁶ *Ibidem*

¹²⁷ *Ibidem*

pasture, wood making (*ius incendi e capulandi*), branches(*frondaticum*) and grass (*herbaticum*) gathering, gleaning (*spigaticum*) and even sowing (*ius serendi*).¹²⁸

They were vital in the early Middle Age and had not been cancelled by feudalism.¹²⁹

The sovereign used to give its lands to the feudatories that had the politic power on them and could enjoy their goods. These feudatories, in turn, were giving these lands in concession to the farmers for their cultivation, that had to return back a part of the cultivated goods. Feudatories were not given the total decisional power on these lands, since alienation or aggregation of more lands was only a sovereign prerogative.¹³⁰

These rights of use were divided into “essentials” and “useful”. The first ones were for first necessity purposes: people could use them for cattle grazing, wood and other wild products gathering or cultivating (through a payment to the owner), necessary goods for the survival of the entire family. The second ones were for economic purposes: right to gather or derive goods from the land for an economic benefit.¹³¹

As a consequence of the end of the feudal system, new relationships with the land created, towards a higher productivity of these with the creation of new contract models, such as the census based contract. It is then in the second half of 18th century that these use rights started to be abolished, under the influence of new ideology streams. However the population fought to keep these rights.¹³²

In the 20th century, efforts have been done to try to recuperate these rights and register them. The first law 1766/1927, that started the process of assurance of these public property agreements, and the law 431/1985 that included the *usi civici* under the list of the good subjected to the environmental protection.¹³³

According to *ISTAT* statistics, in Italy a total of 1407 municipalities manage a surface of 1,103,000 ha of land. The entity that are managing common properties are 1567.¹³⁴

In Piedmont, region where the second study case is located, the 70% of the municipalities has some lands destined to the right of use and the Region has undertaken measures to ensure the

¹²⁸ *Usi civici* (2011), TRECCANI, viewed 10 November 2017, < <http://www.treccani.it/enciclopedia/usi-civici/>>

¹²⁹ *Ibidem*

¹³⁰ *Gli usi civici...questi sconosciuti!* (2012), REGIONE PIEMONTE, viewed 10 November 2017, <http://www.regione.piemonte.it/usi_civici/cenni_storici.htm>

¹³¹ *Ibidem*

¹³² *Ibidem*

¹³³ *Ibidem*

¹³⁴ Fontanarosa, *Proprietà Collettive e Risorse Naturali*, *op. cit.*, p. 212.

proper respect of these rights through formation activities that could guarantee a wider knowledge and avoid critic situations due to the bypassing of these rights.¹³⁵

Their value is immense, both from the environmental and cultural point of view, and they are to be maintained as material and immaterial heritage. This is explicitly proved in the *Dichiarazione Comune Delle Proprietà Collettive*, elaborated by the Italian *Consulta Nazionale della Proprietà Collettiva*, that recognises :

“che, per effetto delle buone gestioni dei nostri predecessori, la proprietà collettiva costituisce parte fondamentale del paesaggio d' Italia e racchiude in sé un tesoro di biodiversità la cui conservazione, nostra precipua responsabilità, è tuttavia interesse universale;

che la moderna società impone alle proprietà collettive di confrontarsi a livello regionale, nazionale ed internazionale, di scambiarsi informazioni, conoscenze e buone pratiche e di collaborare con enti e istituzioni di conservazione, innovazione e ricerca;

che pur nelle loro molteplici differenze, le sorti delle nostre comunità dipendono dalla nostra capacità di coordinarci intorno ad obiettivi comuni, dalla solidarietà reciproca e dalla sensibilizzazione nei confronti di altre comunità i cui diritti, attualmente obliati, sono tuttora giuridicamente in vita;

che quindi la proprietà collettiva, nella propria specificità, deve confrontarsi con le Amministrazioni e i molteplici legislatori da cui dipende il suo destino, nella consapevolezza del fatto che i problemi dell'oggi dipendono anche dalla passata chiusura delle nostre comunità e, conseguentemente, dalla loro scarsa visibilità.”¹³⁶

English translation follows:

“that, as an consequence of our predecessors good management practices, collective property is a fundamental part of Italian landscape and embodies itself a biodiversity treasure, whose preservation is of universal interest;

that modern society imposes on collective property to confront at regional, national and international level, to exchange information, knowledge and good practices and to cooperate with innovation and research institutions;

that even in their differences, our community fate depends on our coordination capacity around common objectives, from mutual solidarity and increased awareness towards other communities, whose rights, now forgotten, are still legally alive;

that collective property has to network with the administrations and lawmakers, which their

¹³⁵ *Ibidem*

¹³⁶ Consulta Nazionale della Proprietà Collettiva (2006), *Dichiarazione Comune delle Proprietà Collettive*, Università degli Studi di Trento, viewed 15 November 2017, <<http://www.usicivici.unitn.it/consulta/dichiarazione.html#top>>

destiny depends on, being aware that modern problems are also a consequence of our communities closure and of their low visibility”.¹³⁷

This four points are put down in black and white to show the great value behind the use of these collective properties and the necessity of their safeguard. In particular some fundamental elements are throw into relief reevaluating them as a necessary basis to preserve natural heritage.

First of all, the role of collective properties is enhanced as a fundamental part of the Italian landscape and its biodiversity, thanks to the attentive and continuous practice operated by communities.

Secondly, embracing the new changes of modern society, the importance of an exchange and confrontation of knowledge and good practices at a regional, national and international level is stresses and the possibility of a collaboration with conservation, research and innovation centre is promoted , in order to ensure an long term preservation and a further improvement through the introduction of innovative methods of management.

Thirdly, communities and their still active rights have to be supported through solidarity and the ability to pursue common objectives.

Finally, the necessity of a protection by administration and legislation is needed.

To sum up, both Elinor Ostrom and the Declaration stress the importance of the common pool resources or collective properties, by proving their effectiveness, richness and proper functioning thanks to the cooperation model that they adopt. This historico-cultural heritage of Europe has to be preserved as a vital resource, in order “not to end up in the same situation of the Jews in Babilonia described by the prophet Geremia, where they were drinking their water paying silver and purchasing their own wood (Lm 5,4)”.¹³⁸

6.2. Community model

It is clear that action has to shift from a State control to a community one. There is a main factor that differentiates these two institutions: State does not work in function of nature, community does. Members of communities have always depended on nature and its resources, for this reason they are the greatest experts of its sustainable exploitation, being aware of the need of its preservation for the future. As also the Nobel Price Elinor Ostrom has demonstrated, members of a community, that is heavily reliant on its territory resources, will find the best and most effective

¹³⁷ *Ibidem*

¹³⁸ *Ibidem*

ways for guaranteeing a shared benefit and a total respect towards natural components.¹³⁹ It is only by reorienting the focus more towards a bottom up action that wild food can become a more consumed and preserved good. Through the reassignment of their rights, communities become the first responsible for nature management. Their cooperative capacity is at the base of a new stream animated by solidarity and mutual help. No other social organisation could better embody this spirit.

A clear example is Club Amici Valchiusella, a community based Association that has showed how synergy can bring such great results in both territory revaluation and people awareness. It is really by putting forces together, by combining traditional knowledge and new scientific one, by joining people wisdom and knowhow and the work of the association that they managed to create an education platform able to spread the knowledge of wild food at every level, always remaining faithful to their philosophy.

It is by following models like these that we can arrive at the *communitarisation* of the platforms. Foraging platforms have to go back to people, to their natural environment, to allow everybody to be more aware of what grows and can be gathered in the territory.

They have to be reached by every different part of society, from families to single individuals, from young people to old, from peasants to citizens and can thus ensure a wider spread knowledge. Everybody has the right to know, to be aware of what he has and to be given the possibility to access to it.

There can be many ways to do it.

First of all, by giving strength to communities and social aggregations for example through recognising their right of use and by giving them the power to take their fate in their own hands.

Secondly, by starting from simple and bottom up activities, coming from the public, such as associations, initiatives that can make foraging not something to teach, but an instrument of education for all citizens. Instrument because it proposes a different way of learning, it brings back to aspects of life that have been forgotten because of the rush and hyperactivity that dominate modern life.

Foraging turns people into active observers: they no longer see nature, but experience it, by using all senses and entering in inter-relationship with it. This dimension is something that everybody should have.

¹³⁹ Ostrom, *Governing the commons, op. cit.*

6.3. Knowledge sharing

Knowledge is a pillar in a wild food consuming society and it is strictly related to the continuous practice and use of the goods in question.

When people know, they are free. Free because they do not depend on other system logics any more. Through knowledge the boundary between men and nature is broken, the fear and the insecurity of what is unfamiliar is overcome and the link with the territory is restored. Through practice this knowledge is enriched and maintained in the long run.

In order to promote this process, the exchange among people has to be activated starting from the main tools available nowadays.

In modern society, we have a special tool that in the other century could not even be imagined: internet. This virtual community, that has developed, has a great value: it is a way to give everyone the possibility to share pictures, information, feelings. Social media in particular have had a great impact as far as foraging is concerned: people posting pictures of gathered plants, writing their name with some information can contribute to raising awareness about what can be found in nature. The web is now a good common to everybody and it can constitute the first step for a wisdom sharing.

An example is the app *Vild Mad*, “a comprehensive and free resource for the public to learn about and sustainably explore wild food”.¹⁴⁰ This app, both in Danish and English language, is articulated on Danish landscape and provides information about edible plants that can be gathered in a certain season and in a specific landscape. Wild food is reported according to different landscapes (waterways, open lands, forests, cities and town) in turn divided in smaller categories of land and seasons of the year. Furthermore, for every wild ingredient habitat of growth, foraging tips, main distinctive patterns, taste description and preparation, use and storage tips are reported. For most of the ingredients, recipes made by chefs are also present to complete the cycle. The user has the possibility to explore nature by himself and discover new ingredients that had never been considered before. The very great merit of this app is its opening to the public: through a mean that is the most used among young generation it has managed to illustrate a reality that was getting farther and farther from people.

Another example is the communication work that Forager, the company I have previously analyzed, is doing on internet, by publishing pictures of wild products and providing some notions about their use or characteristics.

¹⁴⁰ *Vild Mad* (2017), Mad, viewed 15 November 2017, <<https://www.madfeed.co/vild-mad/>>

The diffusion of this communicational medium can be considered the starting point for a more spread knowledge among common users. However, it presents some limits: its effectiveness is reduced by the fact that recognising a plant starting from a picture can be much harder than with somebody else explaining.

In order to ensure an effective education in the wild food scenario, direct human contact is needed. A plant enters in our memory when we have experienced it. Somebody shows it to us as edible, we touch, taste, gather and prepare it. This process is hardly triggered by a single person, but through dialogue, demonstrations, and active interaction with somebody that could offer this exchange.

In western society, knowledge about wild food is fragmented. Everybody knows a little bit of something: elder people may still know traditional uses of some plants, immigrants may have other uses typical of their home Country, students may have acquainted some scientific discoveries and chefs may know the culinary use. The ensuing problem is that these small and dispersed wisdoms, if separated, are not as strong as when put together.

As a matter of fact it is vital to reconstruct a common knowledge, through the aggregation of all these single facets. It is the new alphabetisation of citizens for other citizens: the enrichment comes from the sharing, from everybody putting in common what is known.

Hence, the task everybody should take on is to start asking, creating dialogues among different sectors of society, different generations, different backgrounds. We cannot let a knowledge that has been passed for generations die and we have to reconstruct and improve what is still there.

Internet can arise the awareness, but it is only through people's interaction that this activity can be revived.

6.4. Sustainable model of gastronomy

By sustainable model of gastronomy is meant a model that can meet the needs of present generations without compromising the needs of the future ones. This means that it is important to base everybody's food consumption on a varied diet that could include every resource of the territory without damaging any of them. In this model, wild food consumption and accessibility is a fundamental pillar, given its value in dignity construction, territory link intensification, diet diversification, biodiversity preservation and long term landscape management.

Foraging is not always the activity of gathering wild food, but becomes a way to open up to the

real dimension of life, where time, people and nature are given a proper value and provide the basis for the construction of a new sustainable future.

Free access to wild food is the first step towards an improved food system: pressure on cultivated variety is lowered, biodiversity is preserved, resilience is improved and new tools are constructed to face the challenges of climate change. Through a deeper knowledge of edible wild food resources, people are strengthened by the sense of security and autonomy. The right to access to their resources has to be guaranteed to everyone and they have to get acquainted with the richness of the land they live in.

A social model has to be created, through the application of the three main steps that I analysed before, so that wild food can return to be a good for everybody. The rapprochement of people to nature use is to be reintegrated and promoted, through the recognition of their use rights and the promotion of management practises, the restoration of dialogue among people and the sharing of knowledge.

The individual is the first driving force in this direction. He has to start to be an active protagonist of his life and the world around him, deepening the relation with natural and human world. He has all the potentials to bring a decisive change in wild food system, through small steps:

- experience the land: walk, become aware of the shapes and the real distances of the territory, look around, observe what grows and how this natural world behaves and interacts
- build a dialogue: be curious, talk to people, ask questions knowing that every people could contribute to enrich the knowledge bargain

As part of this process, I finally allow myself to propose a task for the gastronome, the professional figure that I will soon cover. His task is to create connections, to anchor people to their land, to revalue their resources, to arise the community spirit, the collaborative and synergic force that our modern world has forgotten.

He has to restore the ecosystem in its proper meaning, as a “system, or a group of interconnected elements, formed by the interaction of a community of organisms with their environments”,¹⁴¹ by promoting an harmonious interaction among people and nature based on the proper use of its resources and guaranteeing the functioning of ecosystem components through a sustainable approach.

¹⁴¹*Ecosystem* (n.d.), Dictionary.com Unabridged, viewed 10 November 2017, <<http://www.dictionary.com/browse/ecosystem>>



Figure 7 Me gathering Wild Water Cress in a river in Canterbury, photo by the author.

7. CONCLUSIONS

Many scholars and botanists have underlined the importance of wild food in all its different facets, from its cultural to its nutritional value. It has always been strongly present in everyday people's life and greatly contributed to sustain families and communities.

Its loss of knowledge of the 20th century and its elite-reserved consumption of the 21st century has though moved it away from common people.

In the face of the ongoing problems which characterize our century, such as climate change, population growth, biodiversity loss, wild food can constitute the new model of the future: not only for itself but for all the mechanisms that it creates around it. Plant is not only a plant but it is the result of the interrelationship with the other elements of natural world and it can constitute the focal point around which values like identity, culture and tradition develop. Likewise, foraging does not necessary only mean gathering a plant but creating connection with another dimension, where time, silence, attention and respect dominate.

This is why efforts have to be focused on redirecting people towards the reacquisition of wild food knowledge and the claim of collecting activities that were once at the basis of everyday life. A social model that starts from the access to land, community cooperation and knowledge sharing can lead to a spread of wild food knowledge and promote an open access to it.

Foraging is a natural asset that everybody has: we all originated from animals and we still have these capacities more or less developed. Moving, walking, gathering, observing, paying attention to what is edible or not, being aware of what our land can provide us: actions that have always accompanied men to respond to necessities and needs of harsh life.

Nowadays, commodities and comforts have invaded our life turning us into passive subjects, fed by market rules. We have to recuperate this capacity that is hidden in any of us and restart to provide food ourselves. Starting to be active protagonists, to know what grows around us, to communicate with people, to share the knowledge can be the beginning of something great: the construction of a new and deeper link with our mother Earth.

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