



How Living Heritage relates to Alpine Food? Evidence from the Entremont Region (Switzerland)

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Abstract

Recently, the Alps have been experiencing new social phenomena, as a return to agriculture. In this context, the alpine food heritage has been reconsidered after a period of neglect, and is now under application to UNESCO Register of good safeguarding practices in the frame of the Convention for the Safeguarding of the Intangible Cultural Heritage. This paper reflects on a specific case study, the cultivation of red berries in the Entremont region (Switzerland), in the light of an action-research at the Centre régional d'études des populations alpines (CREPA) in Sembrancher (Switzerland), also financed by the *Interreg project Living ICH - Cross-border governance instruments for the safeguarding and valorization of the Living Intangible Heritage*. The extent of the red berries from the 1930s to the 1990s shows the importance of this cultivation for the local economy in the last century. Nowadays, there are few evidences of the red berries, due to the preponderance of the meadows used for mowing but, after several decades of abandonment, a reconsideration of the cultural, social and economic values of these berries seems to be in order.

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Introduction

Alpine food heritage, slow food principles and the goal of sustainability

In the recent Statement of the Alpine Food Heritage Charter, this latter is defined as «the set of sustainable production and consumption practices, knowledge and skills, productive landscapes, and traditional food produced in Alpine regions through relying on the commons, shared goods and services as well as on mutual assistance»¹ (Alpfoodway, 2019). This definition derives from an extension of what cultural heritage means nowadays: no longer relegated solely to the authorial and material forms of art (Poulot, 2006), the definition of cultural heritage is extended to the tangible and intangible cultural productions of the working classes and non-European populations. That is to say, the variety of products related to daily, professional, domestic and festive life transmitted from a body of knowledge, beliefs and techniques, as the Convention for the safeguarding on the Intangible Cultural Heritage stated twenty years ago (UNESCO, 2003). In the age of globalisation, it was feared that these processes would consign traces of the past to oblivion, especially in rural areas with high levels of emigration, such as parts of the Alps. At the end of the last century, this sense of urgency led to talk about patrimonialisation also in relation to intangible assets, a term that designates the socio-cultural/political/legal processes of the heritage-making (Hertz *et al.*, 2018). In the last twenty years, heritage has become a paradigm for the interpretation of the modern challenges in the global word (Bortolotto, 2010). In this context, and over the last two decades, a growing attention has been paid to the recognition of food as heritage (Romagnoli, 2019; Fontefrancesco *et al.*, 2022). Food and foodways are, nowadays, objects transformed into heritage which, on the local and global scale, «it is used to indicate, explicate and replicate important ideological claims on identity, ownership, sovereignty, and value» (Di Giovine & Brulotte, 2016: 4). To refer to the official attribution of the status of heritage, terms as food patrimonialisation or food heritagisation are used. This latter can be conceived as the «socio-cultural process through which different agents identify food and gastronomic resources embedded in a given place» (Zocchi *et al.*, 2021). These resources are recognized by «a dynamic of enhancement [...] consisting of updating, adapting and reinterpreting features drawn from the history of a group, [...] and thus producing new social meaning by drawing on the past» (Bessière, 2012). The results of the food heritagisation are elements defined as: food

1. With this charter, different associations and institutional bodies from different Alpine regions are now endorsing the inscription of the Alpine Food Heritage on the UNESCO's Representative Register of Good Safeguarding Practices (UNESCO, 2003).

heritage, agri-food heritage, gastronomic heritage, and culinary heritage. Even if some related characteristics are specific of every definition (Zocchi *et al.*, 2021), these terms give the idea of the complex nature of food which embraces nature, culture and *techne* (Heller, 2007 in Fontefrancesco *et al.*, 2022), as the same for the intangible cultural heritage.

Moreover, in the same years of the emergence of the importance of the intangible cultural heritage, different movements reclaiming for “good, clean and fair” food in the era of the globalization and standardization of taste and food take an international outreach. It is the case of Slow Food movement. Born as an association in defense of the quality food consumption (Grimaldi *et al.*, 2019), its attention paid to gastronomy has become more complex, as Siniscalchi notes (2013). Its focus has been extended to the three pillars of sustainability (economic, social and environmental) and its intervention covers nowadays the entire food chain, from soil to table (Kinley, 2012). Fighting against the intensive agro-industrial production and the deterritorialization of products and production, Slow Food advocates for the maintain and restoration of the biocultural diversity and for the protection of the foodscapes, threatened with extinction caused by industrialisation and commodification of food (Fontefrancesco *et al.*, 2022: 528). It acts for the rediscovering of the value of species, varieties, and practices that have been marginalized due to the cultural dominance of agricultural model focuses on maximizing and standardizing yields and production through the introduction of new species and varieties, the intensification of mechanization and the use of fertilizers and pesticides (Zocchi *et al.*, 2021). Concrete actions are taken by the Slow Food Foundation for Biodiversity, founded in 2003 in Italy², thanks to some projects such as the Ark of Taste, the Presidia, the Earth Markets, the Convivia (Ruffa & Monchiero, 2002), the Slow Food Travel Agency (Askin Uzel, 2021) and by some big events, such as Salone del Gusto and Terra Madre.

The Alps – in which more than 30% of the total surface is still use for agricultural purposes (Flury, Huber, Tasser, 2013) – seems to be a privileged point of view in order to analyse the contemporary process linked to the creation of alternative food networks and territorial innovation in the Alps (Zanon, 2018) as a response to the conventional agriculture. Firstly, because in the Alps the mechanization is quite impossible, and some processes are still manual. Secondly, because the Alps are experiencing the arrival of new dwellers which are committed to work on traditional production techniques and bring some innovative ideas about new productional chains. Thirdly, because in the Alps it is still possible to find a large biodiversity in

2. www.fondazioneSlowFood.com/en/what-is-the-foundation.

fruits, vegetables, cereals, and native livestock breeds. And finally, because mountain agriculture all over the world has shaped highland landscapes, included the Alps: «mountain communities have developed valuable traditional knowledge and practices in crop cultivation, livestock production, water harvesting, forestry and agroforestry, which are well adapted to natural ecosystem biochemical cycles» (Romeo *et al.*, 2021: 2) and now can contribute to a sustainable transition.

Table 1 - Numbers of agricultural products safeguarding by the Ark of taste project and valorising by Presidia project, and of Slow travel destination for the Alpine regions (based on the Alpine Convention perimeter)

Alpine regions of	Ark of taste	Presidia	Slow food travel destinations
Italy	195	56	3
Switzerland	53	19	1
France	28	4	–
Austria	25	7	2
Germany	2	0	–
Slovenia	7	–	–

In June 2023, while the European Commission was working on the publication of the proposed Sustainable Food Systems Law (Sfs), due by the end of 2023, Slow Food published a position paper on the urgent necessity to build resilient food systems that guarantee healthy and sustainable food (Coste & Wolff, 2023). In this position paper, authors interconnect the three basic criteria of sustainability (economic, social and environmental) with the three fundamental values of the Slow Food philosophy (good, clean and fair) in an era of transitions and rapid cultural, economic and environmental changes. Six dimensions of this interconnexion are underlined, as the Table 2 shows.

Cultural heritage can as well play an important role in the sustainable development processes. For the first time, the role of culture has been recognized in the United Nation’s Agenda 2030³, and the valorization of

3. The 2030 Agenda for Sustainable Development constitutes a plan of action addressing the three dimensions – economic, social and environmental – of sustainable development through 17 Sustainable Development Goals as highly interdependent spheres of action: <https://whc.unesco.org/en/sustainabledevelopment>.

Table 2 - Interconnection between the Slow Food principles and the sustainability criteria based on the 2023 Slow Food position paper (Coste & Wolff, 2023, pp. 6-9).

Sustainability criteria	Slow food principles		
SOCIAL	GOOD	Healthy food systems	Slow Food defines healthy diets as those that promote human health and at the same time respect the health of the planet, favouring plant-based, whole-grain and less processed foods, produced locally using sustainable methods
		Socially and culturally adequate	Food system is sustainable if it prevents and counteracts the occurrence of inequalities within it such as those on gender, race or social class
ENVIRONMENTAL	CLEAN	Environmentally friendly	The key to a sustainable food system is the transition from industrial to agro-ecological agriculture
		Resilient	Sustainable food systems are resilient in the sense that they are able to adapt to change, recover quickly from any problems and redirect themselves towards more sustainable outcomes
ECONOMIC	FAIR	Ethically sound	Sustainable food systems should reflect the values of their societies such as democracy, transparency, solidarity, equality, human rights, inclusion, justice between generations and animal welfare
		Economically viable	Sustainable food systems are based on a level playing field for all and a legal and financial framework that incentivises the production of healthy and sustainable food

the intangible cultural heritage is seen as a way to reach sustainability (UNESCO, 2017). The link between living heritage and sustainability, already stated in the 2003 Convention, is received more and more visibility, as the recent chair in Intangible Cultural Heritage and Sustainable Development at CY Cergy Paris University shows. Sustainable development has entered in what Bortolotto (2013) describes as a “translation arena”. That’s to say, in the discourses of the international organisations as UNESCO or in the national networks (Severo, 2012), where the need to homogenise a globally valid category inevitably clashes with the cultural diversity inherent in its manufacture and its cultural declinations.

It seems that at the global level the concept of sustainable development has shifted. As Bushell (2015) states: «The fulcrum is arguably now social rather than ecological or cultural, though all remain firmly subordinate to economic policy. And, while heritage is not explicitly mentioned, it is repeatedly invoked in most of these declarations of our humanity. It is notable that the linkages – theoretical and pragmatic – between natural and cultural remain relatively isolated despite the connection between natural environment and society, and in particular the economy» (p. 502). Lately, in the anthropological studies, the ontological turn and the more-than-human perspective (Heywood, 2017) raises questions about the capacity of the intangible cultural heritage to offer an opportunity to renew discourse and action towards and with the environment in the face of contemporary challenges. The entanglement with the environment is part of this new heritage category: the diversity of practices and expressions can be seen as so many responses of individuals and groups to their environment and in constant adaptation to changes in the latter, testifying to the creativity of communities (Tornatore, 2019a; 2019b).

In this scenario, «the elevation of food to the status of heritage can enhance the sustainability of the food system while safeguarding traditional food resources through the active participation of local communities» (Zocchi *et al.*, 2021: 1-2). But researchers do not stop to underline the importance of considering some “unintended aspects” of food patrimonialisation and heritagisation. In a literature review based on sociological, anthropological and geographical sources, Zocchi *et al.* (2021) argue the possible side effects and criticalities of food heritagisation. Authors highline 7 unintended aspects (or risks) linked to the 3 phases of the heritagisation process – the heritage recognition, legitimization and valorisation – and their main causes. Between them, some risks are linked to frictions and conflicts which could emerge in the process of recognition, as well as a marginalization of some local actors. Other risks are linked with the process of legitimisation which could applied some exogenous models. The result could be a standardization and

homogenization of food and gastronomy. In the final phase, the valorization, market could enhance some processes of loss of traditional values, an increase competition or a loss of control over the access of the local resources. For this reason, Grasseni (2013) has already highlighted the “food commodification” as a critical issue.

Aims of the study

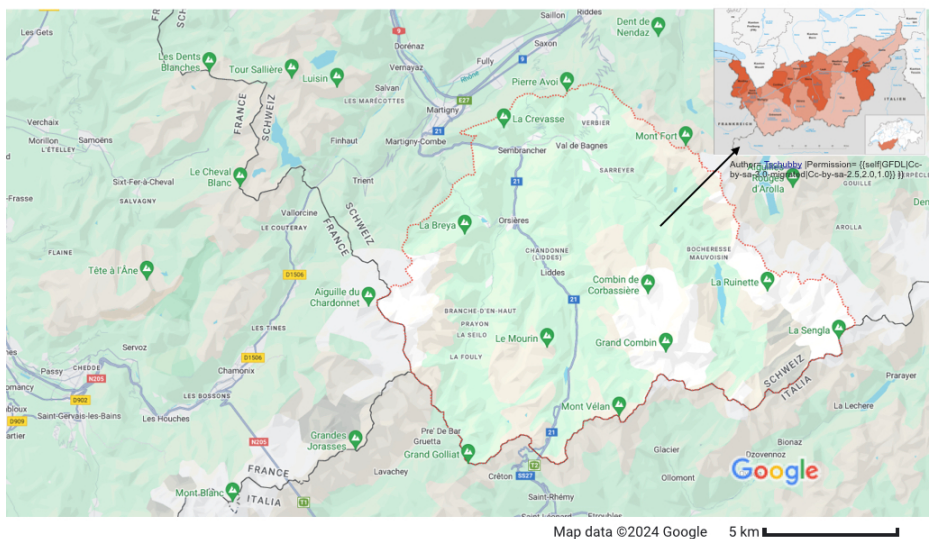
The Alps have always been a fertile ground for the anthropological studies on the cultural heritage since the dawn of the discipline, raising new questions and research methodologies in recent years (Bonato & Viazzo, 2016; Calzana *et al.*, 2023). Studies have focused on the construction of a specific Alpine cuisine (Grasseni, 2007; 2017), on the revalorisation and patrimonialisation of local agri-food chains and products and, recently, on the interaction between the agri-food systems and the territorial systems in transition (Delfosse, 2022; Brand & Pettenati, 2022). As a complex ecosystem with a high level of naturalness but at the same time with a high density of population and infrastructures, Alps could be a very laboratory for experimenting sustainable process, as the international Alpine Convention suggests for the politics and policies (Permanent Secretariat of the Alpine Convention, 2011; 2013; 2017). Agriculture and food systems are economic keys and drivers for development. Alpine food heritage, by its side, could be a lever for the revitalization of the territorial system. As Delfosse (2019) states for the French Alps, the transition toward a more sustainable territorial foodway system has given some unexpected results such as the relaunch of the gardening, and with it of the local know-hows and practices linked to the cultivation of vegetables, berries, and fruit trees. Collective gardens are an example of the need for sharing knowledges, techniques, and practices (p. 44), while participative grocery shops projects are helping new ways to distribute food products in rural areas. These projects, in which intangible cultural heritage often plays a crucial role, emerge from local actors (Loudiyi & Houdart, 2019), showing a high level of social innovation (Landel & Koop, 2018) intended as “the reconfiguration of social practices traditionally embedded in mountain territories, including habits and customs, networks of cooperation and decision-making processes (Howaldt *et al.*, 2015 in Gretter *et al.*, 2019). All of these elements take part of the new dynamism of rural and mountain areas. In regional development and social science literature about the Alps, the subject is often treated by the analysis of best practices in which authors analyse how the foodway could be a driver for both territorial and sustainable development. But far away to be a linear process, authors also refer to the contrasts and failures. That to say, foodways, and

intangible cultural heritage in general, are at the center of many territorial challenges (Hernández González *et al.*, 2020). The ‘reconnection’ between local agriculture, food processing and dwellers in rural areas, then, has also been encouraged by public policy, often subjects of studies (Gros-Balthazar, 2022). Funding opportunities derive from the Common Agricultural Policy at national and regional level, such as the Leader programme. For Switzerland, the Regional Development Project have been introduced in 2007 as part of regional policy in rural areas to create value in agriculture. Multinational or transnational projects between European alpine countries and Switzerland are then supported by the Interreg Programme.

My research aimed to give a contribution to the debate on agricultural practices and know-how in the Alps, considering its revitalisation in the theoretical framework of the critical food heritagisation process (Grasseni, 2013; De Sureiman, 2019), and in the renewed interest in the mountain agricultural landscape and the recovery of marginal spaces (Bertolino, 2021) by showing and analysing the example of the cultivation of red berries in the Switzerland region of the Entremont (Wallis, Switzerland). I have studied this as a fellow at the Centre régional d’études des populations alpines in 2021-2022 (CREPA) and at the Laboratory for the History of the Alps (LabiSAIp) in 2022-2023 of the University of Mendrisio in Switzerland.

Figure 1 - Map of the Entremont Region in the Wallis Canton. Personal elaboration

The Entremont Region in the Wallis Canton



The Entremont region, in the French-speaking part of the Wallis Canton, includes the municipalities of Bourg-Saint-Pierre, Liddes, Orsières, Sembrancher and Val de Bagnes. The region lies on the left bank of the Rhône and includes Val de Bagnes to the east and the Entremont and Ferret valleys to the west. With two ski resorts and many outdoor activities in summer (such as the Mont Blanc tour), the region is very touristic. Farming in Entremont is mountain-based, and mainly focused on milk and cheese production (Dictionnaire historique de la Suisse [DHS], 2011). These niche products also contribute to the agro-diversity (meat, aromatic and medicinal plants, cereals, fruit and honey). However, many of these crops are threatened with extinction, leading to the loss of both biological diversity and local know-how linked to growing and selecting the varieties best suited to the different alpine climates (Tarbouriech, 2004, p. 22).

This is true of strawberry and raspberry cultivation. Having enjoyed a very favorable period for its development from the 1930s until 1990s, this crop is now only grown for home consumption or by a very small number of growers. In addition, while Rhône lowland fruit growing has been studied and documented (Arlettaz, 1976; Thurre, 2013; Tornay, 2013; Lorenzetti, 2014), sources relating to mountain fruit growing and, in particular, red fruit cultivation are scarce (Loup, 1965; Andan, 1965). Starting as a “commissioned” research, I assumed the position of the researcher which is called upon to manage some processes linked to food-heritagisation (Lapicciarella Zingari, 2019), which require the engagement of the local community in order to be embedded in the territories (Gretter *et al.*, 2019). In 2021 and 2022, I also had the opportunity to take part in the project *Living ICH - Cross-border governance instruments for the safeguarding and valorization of the Living Intangible Heritage* (Interreg Italy-Switzerland 2014-2020), for which the Centre régional d'études des populations alpines (CREPA) was engaged. The project, concerning the Intangible Agri-food Cultural Heritage in the border regions between Italy and Switzerland, worked on the themes launched by the project *Alpfoodway - A cross-disciplinary, transnational and participative approach to Alpine food cultural heritage* (Interreg Alpine Space 2014-2020), and by the project *E.C.H.I. - Swiss-Italian ethnographies for the enhancement of intangible heritage* (Interreg Italy-Switzerland 2007-2013). In particular, the project worked on some alternative food chains, such as horticulture, and still implemented *Intangiblesearch.eu*, an online transnational and participatory inventory on the intangible cultural heritage of the Alps⁴, as request by UNESCO 2003 Convention (Unesco, 2003).

4. Related to the subject, the cultivation of red berries has been inventoried: www.intangiblesearch.eu/show_ich_detail.php?db_name=intangible_search&lingua=italiano&idk=ICH-MEB01-0000001795.

1. Materials and methods

The study focused on the past and current extent of red berries cultivation in a mountain region of the Wallis Canton and aimed to design an action-research directed to a possible revival of these crops. The main objective of the research has been the study of the cultivation of strawberries and raspberries as a living heritage and as an economic activity to be sustained and revitalised. The methodology has been based on a qualitative approach to the food heritage (Zingari Lapicciarella, 2019).

The main question has been: What aspects of small fruit cultivation are considered heritage by the community and how they can be act in the renewal of the cultivation?

The first part of the study has been dedicated to the research of historical data, through the CREPA documentation Centre, the online material of the Wallis Canton press, the archives of the State of the Wallis Canton, of the municipalities and of the Martigny and Sion Media Libraries.

After that, an ethnographic fieldwork has been conducted with ancient producers, current producers, other actors in the food chains and local stakeholders. Local actors have been categorized into two groups: primary functions (producers, distributors and local transformation actors) and support functions (category associations, agricultural consortium, cultural associations, schools, local researchers, inhabitants). A total of 23 formal semi-directive interviews have been conducted. The informants were chosen largely by snowball sampling, a specific technique to the social sciences and qualitative surveys where researchers ask the first participants (in this case the first ancient producers interviewed) to identify others who, in their opinion, should/could take part in the study (Goodman, 1961). Interviews have been recording, transcript and analyzed by the researcher by guaranteeing anonymity.

Participatory observation has also been used to document berry picking with the local producers and to evidence the modern challenges given to the economic situation but also to climate change. Field notes have been used to interpretate and analyse the interviews and to build the methodology of the last part of the research.

Finally, a workshop was held in June 2022 with the aim of implementing the governance related to this heritage and outlining possible courses of action for its revalorization.

Informants have been interviewed using an interview guide based on the *Living ICH* project inventory sheet. The interview guide follows the methodology designed at UNESCO level and developed by the community-based online participatory inventory *Intangiblesearch.eu* managed by the Archivio di Etnografia e Storia Sociale (AESS) of the Lombardy Region in Italy.

Figure 2 - Maps of the local actors involved in the research. Personal elaboration based on Google myMaps

Local actors involved in the research



Table 3 - The main topics of the interview guide

The land	Cultivated land (location, size, fragmentation)
	Characteristics of strawberry and raspberry plants and cultivation techniques
	The varieties
	Landscape evolution (changes, if any)
	Management of the strawberry/raspberry cultivations
Production process	Berries seasonal cycle
	Places of production
	By-products (e.g. jams)
Learning and transmission	Collective memory, practices and modalities
	Collective memory: passing on know-how (from generation to generation or between peers)
	Through what practices and modalities?
	Historical sources

The market	Size and dynamics of the sector
Valorisation, safeguarding and participative governance	Actions to promote and safeguard the past history
	Innovations and possible revival
	Threats and risks

The next part of the paper would be an empirical narrative of the three phases in which this research-action has been conducted trying to interconnect the analyses with the sustainable challenges, launched by Slow Food among others.

2. Results

Historical background

Until two centuries ago, red berries grew wild in Switzerland and were only picked in forests, along hedges or at the edge of fields. In fact, it was only at the end of the 19th century that cultivated varieties appeared in gardens and became part of the Alpine landscape (Tarbouriech, 2004). Today, red berries – especially strawberries and raspberries – are produced in many parts of the Wallis Canton, notably in the Rhône plain, as well as in other cantons (IFELV, 2019; AGRISTAT, 2021). The Swiss production is mainly aimed at the local fresh market and is based on the high taste quality of these fruits (Carlen *et al.*, 2011). Strawberry cultivation was introduced in the Entremont since the late 1920s. In 1927, the municipality of Bagnes helded two conferences. The first was given by Mr Laurent Neury, professor of agriculture at the École Cantonale d’agriculture de Châteauneuf (Le Nouvelliste, 1st march 1927), and the second by the director of the *Fabrique de conserves* de Hallau, who convinced the audience that strawberry cultivation should be possible and even advantageous in the valleys (Le Nouvelliste, 17 march 1927). Trials were recommended for the varieties to be chosen. During this period, a significant role was played by the *Fabrique de conserves Doxa* in Saxon, set up in 1887. It initially sourced raw materials from outside the canton, then set up a «syndicat», which undertook trials to determine the best varieties for sale and canning (Loup, 1965). After few years, strawberries had not only found fertile ground in the Val de Bagnes but also in the Val d’Entremont where Orsières became a major production centre in the 1960s (Le Nouvelliste, 6 july 1963).

The picking was organised by the *Syndicats des fraises* or *Syndicats de fruits et légumes* (strawberry or fruit and vegetables trade union), born in almost every village from the 1930s onwards. (Luisier, 1997). Basically, a «syndicat» is a form of professional organisation based on an association of workers in the same or similar professions who come together to better defend their interests. The first task of a «syndicat» is to negotiate the price of fruit. But it does not stop there (Le Confédéré, 12 June 1931). In the «syndicats», the workers manage their own farms, but they agree on the management of the sale and delivery of the products, the maintenance of the fields, the watering and the treatments to be carried out, by paying an annual sum.

The organisation of a «syndicat» requires a president and a secretary for each village. The members are convened once a year in a general assembly, and thematic meetings follow during the year. In addition, in each village, a person must always be hired to ensure that the picking period runs smoothly. At that time, the «syndicats» are attached to the *Union valaisanne pour la vente des fruits et légumes*, founded in 1934, which guarantees sales (Le Confédéré, 6 June 1938). The organisation in «syndicat» is well remembered by the inhabitants, but the majority of them lasted until the 1980s/1990s, when the production of strawberries and raspberries on a large scale decreased considerably in the Entremont Region.

From the 1930s to the 1970s, strawberry cultivation enabled many families in the region to significantly improve their income (Besse, 2020). During this period, strawberries were widely recognised and exported beyond the canton and even beyond national borders. Later, raspberries gradually replaced strawberries with the same success. In the 1970s, raspberries are mentioned as a cultivation for the market in the mountain regions of Iséables, Veysonnaz (both outside the Entremont), Orsières and Bagnes with 1/3 of the total production in the Canton (La Terre valaisanne, 15 March 1976).

Furthermore, in order to help local producers and to carry on tests and studies on the crops in mountains, the Federal Research Institute Agroscope has run the experimental station on the red berries in Bruson (Municipality of Val de Bagnes) at 1100 meters a.s.l. for more than a decade since the late 1990s (Journal du Valais, 21 April 1978).

However, the production in the mountain regions has steadily declined since 1970s (see Table 4).

The main causes, also following the interviews, have been: the decline in the profitability face of international competition and lowland plantations (Le Nouvelliste, 29 June 1972); the decline in mountain agriculture because of the industry and of the winter tourism (Vallat, 1965); a change in the distribution of the wage labour within families, with the abandonment of the single-income derived from agriculture, with the turn of the men into the so-

Table 4 - Historical series of the evolution of the strawberry cultivation in m² in the Entremont municipalities. Source CH AEV, 3250-2014/14, 10.2 Fraises, baies et petits fruits de montagne, 1960-1993 (Dossier) (Archives de l'État du Valais)

	1962	1967	1976	1982
Bagnes	199,681	120,000	12,129	4500
Vollèges	95,799	86,000	22,036	600
Sembrancher	28,400	20,000	6,903	3000
Bovernier	163,778	155,400	27,832	10,000
Orsières	462,853	280,000	82,488	12,150
Liddes	1270	insufficient data	insufficient data	insufficient data

called “paysan-ouvrier” (peasant-workman). The agricultural tasks were taken by the women, allowing the maintenance of the “famille-paysanne” (peasant family) (Vouilloz Burnier, 2022). Last but not least, the strawberry variety Mme Moutot, which was the only one since the 1960s, started to suffer because of some diseases (Andan, 1965) and it was abandoned. The introduction of other commercial varieties caused the change of the main centres of production, such as the Entremont, in favour of other valleys (La Terre valaisanne, 15 may 1983).

Although these crops were once fundamental to the economy, culture and landscape, few farmers remain custodians of an agricultural know-how that has characterised the region on a large scale. Despite that, many inhabitants recognize the cultivation of strawberries and raspberries as part of their past and heritage, while others are interested in a renewal of the crops.

The current situation of the red berries cultivation

The transmission of this history and of the know-how related to the cultivation of berries have always take place within the family. Those who still produce for sale have inherited the fields and the knowledge of plant management from previous generations (parents or in-laws) and in turn try to pass it on to their children. It should be noted that in the past, cultivation was practised by both men and women. As the interviews show, when mountain communities entered the era of dual employment in the 1950s, men found employment in the tourism industry, construction, public works and factories. Harvesting became “feminized”. The men were then engaged in paid work and could no longer devote themselves to picking, but they still maintained the labour of the plots. For women, farming became a full-time job. When

production for sale began to decline in the 1980s and 1990s, families continued to manage the gardens and fields for family consumption. Many of them passed on the know-how to their daughters and daughters-in-law. As a result, women are now the ones with the knowledge of managing, picking and processing berries.

The cultivation of berries is now reserved for self-consumption or guaranteed by a very small number of producers. These are women who still produce small quantities for sale, especially raspberries, but who are not professional farmers. None of them are inscribed to professional unions, so they don't appear in official statistics of production. For them, red berries cultivation is a side job to their work or retirement that keeps them busy in June and July for the picking and throughout the year for the maintenance of the strawberry and raspberry plants.

Many inhabitants preserved some rows of strawberries and raspberries of the ancient variety in their own private gardens, which become places of conservation, safeguarding and valorization of a domestic biodiversity. This latter «constitutes a wealth that is mobilized today for heritage purposes, but also for food policies and adaptation to climate change» (Guiraud *et al.*, 2022).

However, the landscape has now changed. The fields have been turned into meadows for mowing – as dairy farming is the main agricultural industry in the region as well as in the Swiss in general (Zorn & Zimmert, 2022) –, or for the cultivation of officinal herbs (La Terre valaisanne, 15 may 1990). Despite that, there is a continuity with the past, a thread that has never been cut. The producers, who still have crops of sufficient size to sell berries, have perpetuated a family tradition. In two cases, it is an activity that they learned with their in-laws in the 1990s, when they moved to their husbands' village and left work to look after the children. It was at this time that they started to help in the fields. Their parents-in-law or parents were part of the generation that had experienced the strawberry boom and they were children when they had to help their parents in the fields. For this reason, even if strawberries and raspberries are no longer profitable:

I've been growing raspberries since I moved here (*to Reppaz, a village in the Commune of Orsières*) with my husband. I come from Liddes and my parents-in-law were already growing them. I learned from my parents-in-law. It's often the same varieties, we've always put back the same ones, the variety is called Glen Ampel;

I haven't come from the village here (Issert, a village in the Commune of Orsières), my husband comes from here, but my parents had raspberries in Orsières. I've always seen my parents do it, I know how to treat them. Once, everyone had to help, the adults would pick and the little ones would carry the baskets, so they could see and learn how to do it.

These women have not only inherited a passion, but also the same plants. In some cases, the raspberry plants are 40 years old. In other cases, they are varieties tested by the Agroscope Experimental Station in Bruson. People from the region used to go to this village in the Val de Bagnes to buy varieties. They also went there to attend training days or to do trials. The Station was a real reference for the red berries producers of the region, but it later converted its production to officinal plants. The varieties were selected to grow at an altitude of 1000 meters and to resist cold, wind, spring frost and hail.

Today, there is a major difference with old practices: chemical products are now banned. If the old ones treated a lot, nowadays the producers try to produce as naturally as possible.

Picking season starts at the end of May for strawberries and at the beginning of July for raspberries. Red berries are harvested three days a week in 500 grams baskets and sell the same morning so that they don't rot.

In the past, strawberries and raspberries were sold to grocery shops, confectioners and hotel chefs in Verbier (Le nouvelliste, 12 august 1998). Now, only one producer sells to a bakery that makes pastries with the fresh product. She delivers them herself. The others sell to private. All the producers note that there is an increase in demand. It is word of mouth that allows people to get to know the producers. One of the reasons for the increased demand is the price per kilo, which is competitive with the products in the supermarkets. According to one producer, there is also a certain appetite for local and mountain products:

In terms of consumers, they understand the difference with the plain. For a very long time we didn't change the price per kilo, I used to sell 11 Frs. per kilo, and then the years that my father-in-law was there he used to say "no, no, you mustn't increase it", then two years ago a woman said to me "you must increase the price, your products are of good quality", so last year we went up to 13 Frs. and I told people "you know I increased the price, it would be 13 Frs.". They said "it doesn't matter, don't worry, you've done very well, you don't pay as much as when you go to the shop and you know where it comes from".

Although producers are facing a shortage of available product, the increase of the production would be difficult for them. Indeed, they exploit plots of 200-300 m² which require a lot of work.

The planning process with the local stakeholders

In the last phases of the research, a workshop with different stakeholders (inhabitants, farmers, food companies, politicians, an organisation for the

valorisation of the mountain agriculture, teachers, etc.) has been held in order to exchange about some paths for a revival of this cultivation.

During the discussion, three sectors have been investigated: production, transformation and education/transmission.

Nowadays, the production for sale is residual in the panorama of red berries production in the Wallis valleys, particularly to the benefit of the lowland regions. However, stakeholders agree that mountain agriculture could benefit from the positive image and appeal that it has on consumers today. It could also contribute to an economic surplus value on the final product (fresh or processed), besides a remuneration at a correct price in the production chain.

The demand for local berries is increasing as consumers are more and more sensitive to the origin of the product. As many people still have the knowledge of processing the fruit into syrups or jams, there would be no problem in creating a B2C chain (direct sale of fresh fruit for consumption or processing, both to locals and tourists). 2nd or 3rd choice fruits, which are not easy to market, could be also used in local processing companies (fruit juices, jams, syrups, liqueurs, ice-creams, etc.) and for innovative products, such as the use of red berries to flavour beer, dried fruits, and energetic bars. Beyond that, the motivation of producers is fundamental for the sustainability of the sector and the transmission of know-how. As far as red berries are concerned, the producers and inhabitants of the region recall a very hard period of work (especially for strawberries), which means that innovative solutions must be found for cultivation.

Among the difficulties for developing new cultivations in mountains, there are: the strong price competition with strawberries from the plain and from abroad and a certain delay in the production of the mountain strawberry which arrives later on the market, when other fruits are available (e.g. the Wallis apricot). It seems that, by this time, the consumer's desire for strawberries has already been exhausted, as it was previously satisfied by the availability of foreign strawberries since March on the supermarket shelves. But this could also be an asset, as it would allow a longer production period, not competitor of Wallis strawberry from the plain, while extending the offer of a local and mountain product.

Another point of weakness is the competition with officinal herbs, which have been established in the area for a long time. In fact, this is a very profitable crop that competes with the project to revive strawberry and raspberry cultivation, especially with regard to the availability of land.

The availability of land is another problem. Meadows for fodder and cereal fields for animal consumption (maize and triticale) are still preferred by the dairy farms, which are also under the specifications of the Valais Raclette AOP cheese production.

For this reason, some stakeholders suggest the possibility of a community-based land management, reconsidering the role of the ancient “syndicats the fruits”. This is particularly felt by new inhabitants and new organisations which are working on the revival of marginalized areas, as in other countries of the Alps (Bertolino, 2021)⁵ and abroad (Ravazzoli *et al.*, 2021).

Finally, all the participants are aware of the importance of local self-sufficiency, regenerative agriculture, organic approach to food production, quality soil and seeds. At the same time, local intangible cultural heritage is more and more used in formal and informal education (Labrador, 2022). Participants suggest to develop some awareness-raising project with primary schools of the region, both to have a “field to table” approach and to allow the intergenerational transmission of knowledge and know-how to continue⁶.

4. Discussion

Each phase of this research-action could be aligned to the sustainability criteria and the slow food principles shown in Table 2. Both the historical background, the current situation of the cultivation and the planning process started could be a levers to enhance a local food system which is good, because it is healthy and socially and culturally adequate; clean, because it is being adapted to environmental changes; and fair, because it sounds ethic in its intergenerational exchanges, in the solidaristic form and in the biodiversity inherited by the past, and economically viable in the consumers’ awareness of the fair price.

As for many other Alpine communities, the example of the Entremont shows that the safeguarding and valorisation connected to food «keep productive supply chains alive in the contemporary market while informal and living social activities are evidence of a strong commitment of the social groups and individuals to keep alive and transmit spiritual and cultural values» (Zingari Lapicciarella, 2019).

5. So today, it is also necessary to consider the protagonists of the “ascending” demographic flows (i.e. the new inhabitants of the mountains) who often become knowledge holders by choice (and not by birth) through a multi-level and multidimensional transmission of tradition.

6. In this regard, a project about community gardens in the schools of the region founded by the *Etat du Valais* has been launched in February by CREPA and HEP.SO. The first experimental community garden has been inaugurated during the scholar year 2022-2023 in Liddes and presented to the population in June 2023.

Table 5 - Interconnection between the principal research results and the Slow Food position paper

Results of the 3 research phases		Sustainability criteria and Slow Food principles					
		Healthy food systems	Socially and culturally adequate	Environmentally friendly	Resilient	Ethically sound	Economic viable
HISTORICAL BACKGROUND	Ancient varieties adapted to mountain terroir			X	X		
	Collective memories		X		X	X	
	Solidaristic forms of management		X		X		X
CURRENT SITUATION	More natural cultivation methods	X			X		
	Familiar gardens	X	X		X	X	
	Intergenerational exchanges		X		X	X	
PARTICIPATORY PROCESS	Interest in local production	X	X	X			X
	Informal education	X	X		X	X	

More specifically, food and the process of heritagisation become a marker of contemporary socio-cultural, economic, spatial and ecological changes in rural mountain territories (Whited, 2018). Intangible cultural heritage in alpine regions, in general, is seen as a possible way to regenerate rural economies and revitalize territorial system (Nemac & Pelvac, 2019) as other case-studies and best practices evidence (Rinallo *et al.*, 2021).

The research revealed a general interest in the reviving of strawberry and raspberry cultivation as local heritage to create alternative food-chains.

However, the complexity of the territory reminds that it has to be considered the modes of relationship and interaction between the system of actors, the economic context and legislation.

To resume this complexity, a SWOT analysis (see Table 4) has been drawn up to highlight the strengths, weaknesses, opportunities and threats of strawberry and raspberry cultivation in the Entremont region.

The cultivation benefits from the fundamental contribution of women producers and private individuals for the preservation of certain species of red fruits in mountain, for which consumer demand has been growing steadily. Particularly in the past, strawberry fields have contributed to the economy of the region and to the image of the area, both in terms of landscape and smells, contributing to a strong identification between the practice and the local environment. The presence of the Agroscope Station has meant that some varieties have been selected on the basis of their best adaptability to the temperatures, sun exposure and soil characteristics of the area, which vary between the respective altitudes.

In spite of the growing demand for mountain red fruits, the market has been progressively declining, as it is an occupation entrusted to a very small group of pickers, who devote themselves to it for passion or as a secondary activity. Also, the transmission of knowledge is at risk. According to the interviews, it is possible that the current gatherers are the last custodians of these practice. Red fruit cultivation requires a lot of care all year long, that is impossible to combine with a full-time job. In addition, the seasonality of the picking determines a single intensive harvest time, which occurs between the end of May and July, limiting the availability of products to a very short period. The perishability of red fruits is another weak point which requires a quick delivery on the same day of the picking.

Some important opportunities for the small-scale mountain cultivations are to be found in the willingness of the producers and of other stakeholders to work in a network and to restore associative and mutual forms of management of the red fruits cultivation.

An important role could be play by the PDR Grand Entremont (Regional Development Plan), as yet play for other food-chains, e.g. the cereals⁷. With the enhanced of the territorial label “Le goût des cimes”, the PDR Grand Entremont works for the engagement of local producers, the valorisation of local agricultural products and the networking with the different stakeholder of food (e.g. restaurants and agritourisms). As McMorran *et al.* (2015) state for the European alpine countries, «a mountain-related labelling offers

7. www.grand-entremont.ch/fr/les-produits/farines-et-pains.

significant potential for supporting the development of marketing channels for mountain food products. The specific characteristics of these products, linked to the qualities of the mountain environment and/or their production methods, give them a particular value as high-value niche products» (p. 4).

In addition, the growing demand for mountain products could act as a factor stimulating supply, encouraging young producers to enter the sector and introducing innovations in cultivation methods, e.g. above ground. This would not only expand the supply of products, which are recognised as being of high quality, but could also increase yields and overcome problems of land availability.

The main threat is climate change and the competition for land. In addition, the low price on the market makes small-scale mountain cultivation uneconomic.

Other studies (agronomic, economic, marketing) could provide useful information and help to answer questions such as: How many owners of open land would be potentially available to lease their land to agricultural entrepreneurs wishing to dedicate themselves to these cultivations? What forms of cooperative organisation could be successful? What market demand might there be for these products? How could added value be created for mountain and local products (labels, links with the Festival, distribution and sales channels)?

Tabella 5 - Swot analysis of the red fruits cultivation based on the results of the research

Strengths	Weakness
Presence of family gardens that preserve ancient varieties that are well adapted to the temperatures and soils of the area	Harvesting practised by a small group of women producers who do it as a secondary activity
Cultivation practice that was once widespread and whose memory is still alive, as it is also linked to a time of well-being and prosperity	Transmission of knowledge at risk Seasonality of harvesting (intensive time between the end of May and July requiring the help of friends and family)
Increasingly natural production	Plants and soils that require a lot of care throughout the years
The presence of the Conthey Agroscope Station and its experience in the field of berries	Absence of b2b sales channels

Opportunities	Threats
Possibility of land management of farms for community management	Weather conditions: spring frost
New method of cultivation (soiless) Production that complements that of the plains, as it comes later in the mountains	Competition from the plain (lower price) for fresh produce The primary sector of the economy no longer sees many people hired on a full-time basis
Interests in the transmission of local know-how and practices by local cultural associations (informal context) and schools (formal education)	Different interests on open land (introduction of crops versus meadows to make hay for livestock)
An increasingly popular mountain product on the local market (short local supply chain) after Covid 19 and internationally (tourism in the Val de Bagnes)	

5. Concluding remarks

The article explores the dimension of local agricultural practices and food as living heritage and their link with some of the anthropological phenomena which are affected the Alps, as the returns to agriculture and to some more respectful practices in these fragile territories. In addition, the example of the red fruits cultivation in the Entremont Region shows some intents to reach a sustainability model in agriculture in alpine countries as Switzerland (Département fédéral des affaires étrangères [DFAE], 2018). The heritage dimension of agricultural know-how is therefore now based on social and ecological functions that can be summed up in three points. Firstly, the Alpine food heritage has become part of political discourse (Derèze, 2005) and of the contemporary practices of “communities of practice” (Council of Europe, 2005). In the Entremont region, families have continued to manage the gardens and fields for family consumption, and many of them still use the ancient varieties of red fruits. Today, the gardens are places where strawberry seedlings and raspberry rhizomes are exchanged between generations and cultures. This practice concerns both old and new mountain dwellers. Secondly, the living traditions of the Alpine food heritage and the “natural” environment are interdependent (Wiedmer, 2018; Tornatore, 2019b). The heritage of food-related practices is a framework for ecological crisis. The old varieties of strawberries and raspberries still kept in private

gardens show how communities of practice are not only the guardians of seed biodiversity but also how, through their new ways of growing crops at altitude, they are building niches for bottom-up experimentation that can anticipate the major issues linked to climate change. Thirdly, the specific case of berry crops reveals elements linked to the notion of transition. There is an idea of “passage” from one state to another where something happens in between. This notion also incorporates the idea of discontinuity and rupture with the existing state, which leads to phenomena of the deconstruction and re-composition in the cognitive, affective, and structural domains (Tapia, 2001). Communities of practice are aware of the heritage value of their know-how, which is part of the mountain farming tradition. But by acting through practices, they do not fix the Alpine food heritage in the past. On the contrary, they are renewing it as a resource that generates new responses to future challenges (UNESCO, 2021).

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