Producing and consuming artisan food: a way of preserving our biological heritage?

A phenomenographic study on how biological heritage is understood, described and communicated in the context of artisan food production and consumption

Author: Chloé Girard

Supervisor: Paulina Rytkönen
Södertörns högskola | School of natural sciences, technology and environmental studies
Master’s thesis in Environmental Sciences, 30 credits
2017
Abstract

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Author: Chloé Girard

In Sweden, the environmental quality goal 13 for A Varied Agricultural Landscape, that combines environment, food production and rurality and aims at keeping the agricultural landscape open, was considered as not achieved in 2016. One of the reasons for this non-achievement is the agricultural intensification and specialisation and in turn the decrease in number of pastures during the 20th century, threatening thus habitats, diversity and values resulting from a continuous, traditional use of the land commonly called ‘biological heritage’. This study focuses on the traditional and sustainable animal husbandry using pastures, contributing to both the preservation of biological heritage and the production of high-quality food. It relies upon the assumption that the link between artisan food production and biological heritage is not well understood nor highlighted by the different actors taking part into the process of producing, selling, buying and consuming artisan food products in the rural areas of mid-northern Scandinavia, and therefore the study attempts to contribute with knowledge about how biological heritage is understood, described and communicated within this context. For such purposes the study takes a phenomenographic approach with biological heritage, pastures and artisan food products as the conceptions to be tested, and consists of semi-structured interviews of three agencies and surveys of artisan food producers and consumers. It adopts an environmental communication theoretical framework where a model is suggested for investigating actors’ learning process of biological heritage, from agencies to producers to consumers. The results reveal three phenomenographic categories showing that agencies and producers understand biological heritage in terms of (1) cared habitat and cared species, (2) historical and cultural know-how and (3) animals and their tasteful diet, and it is showed that the necessity of a continuous, traditional human use was less put forward than the cultural dimension of biological heritage. Also producers communicate about biological heritage to consumers through both their products and their actions. Furthermore the results show that consumers’ understandings of biological heritage are similar to the agencies’ and producers’ phenomenographic categories and that they could make a link between artisan food production and biological heritage, but only to some extent. Finally, in order to create an economic value for such products, a sense of place for pastures is argued to be a basis for people’s willingness to take care of and safeguard pastures. This study can be the starting point for further research, especially for investigating how producers actually interact with consumers about biological heritage when selling their products.

Key words: biological heritage, local food, artisan food, environmental quality goals, environmental communication, fäbod, Sweden
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Acknowledgments

This study would not have been possible without the contribution of several people, namely:

- The three interviewees at the County Administrative Board of Jämtland, Eldrimner and the Federation of Swedish Farmers who gave me some of their time to answer my questions.
- The artisan food producers at Gregorie Market who allowed me to question their customers.
- The 55 consumers who accepted to give me five minutes of their shopping time to answer my questionnaire.
- The eleven artisan food producers who accepted to answer my questionnaire.
- Paulina Rytkönen and Håkan Tunón who both helped me to build up this study.
- My sambo who was patient and helped me to stay positive.

I thus would like to thank them all.
List of definitions

Biodiversity (SWE: biologisk mångfald) – species richness, genetic variation in species and the diversity of ecosystems (*NE).

Biological heritage (SWE: biologiskt kulturarv) – nature that tells about culture. Consists of ecosystems, habitats and species that have emerged, developed or benefited from human use of the landscape and whose long-term survival and development presupposes or is positively influenced by use and care (Swedish National Heritage Board).

Cultural heritage (SWE: kulturarv) – ideas and values that are part of a culture’s history and that serve as a common reference framework (*NE).

Cultural landscape (SWE: kulturlandskap) – landscape that is more or less strongly transformed by human activity (*NE).

Environmental Communication – “the various ways we communicate about the natural world” (Corbett 2006:2).

Landrace (SWE: lantras) – local population of a domestic animal in which fertilization mainly occurs through natural coverage, even though the individual choice is controlled by man. The breed should have existed for a long time in the area for the animals to have adapted to the environment (*NE). Example: the Swedish Mountain cow (SWE: fjällko).

Natural landscape (SWE: naturlandskap) – term which in its strict theoretical sense refers to a humanly unaffected landscape (*NE).

Pasture (SWE: naturbetesmark) – meadow characterised by the non-transformation of the soil, that is to say that landscapes elements (i.e. stone walls, houses, etc.) are preserved and that the soil is neither ploughed nor fertilized.

Outfield (SWE: utmark) – land at a further distance from the home and which does not consists of fields or meadows (*NE).

Shieling / Summer farm (SWE: fäbod) – “A periodic settlement for the summer season with the purpose of taking advantage of pastures’ resources and for the processing of milk into sustainable products. There (are) buildings for people, livestock and milk processing. The fäbod (is) a specialized female workplace and (has) a functional connection with the home farm and its cultivation and other agriculture.” (Larsson 2009:102)

Transhumance (SWE: transhumans) – form of livestock farming, which implies that cattle and herds return to the same pastures year after year (*NE).

*NE: Nationalencyklopedin
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CHAPTER 1: INTRODUCTION

1.1. Background

The year 1962 marks the beginning of environmental considerations with the book Silent Spring written by Rachel Carson, who mainly condemns the use of pesticides, having considerable negative effects on ecosystems. Since then the urgency of environmental issues has become more and more attested and countries have started to take actions. In 2015 countries around the world have agreed on an Agenda for Sustainable Development to be achieved by 2030, together with the United Nations, businesses and civil society. This agenda aims to improve peoples’ life (www.un.org; a) on the basis of 17 goals embedded in three different areas, namely economic, social and environmental. Regarding the economic area, the goals aim among other things to promote a sustainable economic growth and employment for everybody, as well as to promote sustainable production and consumption patterns; regarding the social area, the goals aim to reduce inequalities between populations, reduce poverty and hunger as well as to improve education and health; and finally, regarding the environmental area, the goals aim to take actions against climate change, to sustainably use and protect marine resources, as well as to slow down deforestation and stop biodiversity loss. The overall goal of this agenda is future-oriented, that is to say that the main idea is to create a desirable future for future generations (sustainabledevelopment.un.org; a). Furthermore these goals being global, countries have to make their own interpretation in order to be able to implement them according to their own national conditions and capacities (sustainabledevelopment.un.org; b).

Sweden is one of the countries who took part in this global agreement and the country has also developed a series of national goals to achieve. A relevant series of goals for this study is the Swedish environmental goal system, relying upon the environmental generation goal defined by the Parliament as “hand[ing] over to the next generation a society in which the major environmental problems in Sweden have been solved, without increasing environmental and health problems outside Sweden’s borders” (www.swedishepa.se; a). This environmental generation goal gives the direction for the environmental policy, focusing thus on the recuperation of ecosystems, the conservation of biodiversity in natural and cultural environments, human health, resource-efficient material cycles, the sustainable management
of natural resources, the increased share of renewable energy, and the sustainable patterns of consumption (www.swedishepa.se; a). For such purposes, the Parliament agreed in 1999 on 16 environmental quality goals, covering different areas from biodiversity to eutrophication to functioning farmland ecosystems, to be achieved by 2020. In total eight national authorities\(^1\) are responsible for the follow-up and the annual evaluation of one or more of these 16 goals on the national level. On the regional level, the County Administrative Boards (Svenska Länsstyrelse), together with regional authorities, are responsible for the coordination of the work in defining regional environmental goals and in deciding on specific measures; municipalities, but also industries, voluntary organisations and without forgetting individuals play an important role in the achievement of the goals (www.miljomal.se; a).

The environmental quality goals affect and are affected by other policy areas, as it is the case with the goal 13 for A Varied Agricultural Landscape. Indeed goal 13 links environment, food production and rurality, and is defined as such:

> The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened (www.swedishepa.se; b)

The responsible authority of this goal is the Swedish Board of Agriculture (Jordbruksverket) and an important instrument is the Programme for Rural Development 2014-2020 (Landsbygdsprogrammet) consisting of financial supports and compensations for rural development (www.jordbruksverket.se). On the one hand the food strategy of January 2017 suggested by the Government argues for a competitive and innovative food chain where both production and productivity increased as long as it does not impede the achievement of the different environmental quality goals including the goal 13 (Näringsdepartementet 2016:1); a sustainable food production, such as suggested by the Government, would contribute to the environmental work done in order to achieve the goal. On the other hand food production and agriculture are suggested as one of the ways for rural areas to promote a green economy and environmentally-driven businesses (Parlamentariska landsbygdskommittén 2017:61), providing at the same time job opportunities for the local populations; an active agriculture in rural areas contributes to a varied landscape, including thus open fields, pastures and a diversity of cultural environments (Näringsdepartementet 2016:10).

\(^1\) That is to say: Environmental Protection Agency; Swedish Agency for Marine and Water Management; National Board of Housing, Building and Planning; Swedish Board of Agriculture; Swedish Chemicals Agency; Swedish Forest Agency; Swedish Radiation Safety Authority; Geological Survey of Sweden.
1.2. Research problem

Defined as an “aim” or a “desired result” (en.oxforddictionaries.com), a goal is something that is considered as important by – in this present case – the State, i.e. both the Parliament and the Government, relying upon international agreements. The 16 Swedish environmental quality goals reflect a state of the environment that is desirable, that is to say that today’s state of the environment is not satisfactory enough and has to be improved through actions and measures taken by the different actors of the society.

According to the environmental quality goal 13, the agricultural landscape must be open, varied and consisting of pastures and the natural and cultural values must be preserved, which requires a continuous maintenance and care (www.miljomal.se; b). However the environmental quality goal 13 was considered as unachieved in 2016 by the Environmental Protection Agency (Naturvårdsverket), among other things because the number of pastures in Sweden has significantly decreased during the 20th century due to the intensification and specialisation of agriculture through the country (Världsnaturfonden WWF 2012:6). This decrease in number of pastures has had many consequences on both biological and social levels, such as fragmentation and growing of lands and loss of profitability for producers respectively. In turn it threatened habitats, diversity (Naturvårdsverket 2016:239 and 242) and values, resulting from and depending on continuous human activities (www.miljomal.se; b), commonly called ‘biological heritage’.

This study2 has as background the use of traditional and sustainable animal husbandry that contributes to and is necessary for a rich diversity and the preservation of biological heritage, at the same time as it can be a “base for high-quality food production” (Tunón et al. 2013:58). Such food production relies upon traditional skills and traditional knowledge – dating from pre-fossil energy-based times (Tunón et al. 2013:58) – that are embedded in the local level, and gives the opportunity for producers and consumers to be closer to each other, abolishing costly intermediaries (Ekeland 2009:24). In turn the profitability of these local, small-scale artisan food producers might be increased at the same time as biological heritage is preserved.

However there is currently a lack of knowledge on how biological heritage is understood in the sector of artisan food production and consumption, and therefore this study relies upon the assumption that the link between artisan food production and biological

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2 This study is a part of the project “Biological heritage as sustainable value creator” (2016-2019), financed by EU (Interreg). The project managers are Håkan Tunón (CBM), Paulina Rytkönen (Södertörns högskola) and Bolette Bele (NIBIO).
heritage, and in turn the preservation of pastures, is not well understood nor highlighted by the different actors taking part into the process of producing, selling, buying and consuming artisan food products in the rural areas of mid-northern Scandinavia, such as the regions Jämtland and Västernorrland (Sweden) and Sør- and Nord-Trøndelag (Norway).

1.3. Research objective

The purpose of this study is thus to contribute with knowledge about how biological heritage is understood, described and communicated within the frame of production, consumption, sales and purchases of artisan food resulting from the use of pastures. For such purpose a phenomenographic approach is chosen and three groups of actors are in focus in this study, namely artisan food producers, artisan food consumers and three agencies ((1) the County Administrative Board of Jämtland, (2) Sweden’s Resource Centre for Artisan Food Eldrimner and (3) the Federation of Swedish Farmers) taking part directly or indirectly in the conservation of pastures and / or the processes of production and sales of artisan food products. A particular focus is put on the Swedish region of Jämtland, where agencies were interviewed and consumers were questioned. Taking an environmental communication perspective, the present study relies upon the idea that agencies – through any type of supports – transmit not only information and support but also meanings and understandings of biological heritage to producers, who in turn interact with consumers through the processes of sales and purchases of artisan food products, sending thus meanings of biological heritage to consumers.

1.4. Research questions

The research questions covered in this present study are the following:

- **Question 1**: How do the actors understand, describe and communicate about biological heritage in the context of production, consumption, sales and purchases of artisan food products?
- **Question 2**: Do artisan food consumers make the link between artisan food production and biological heritage?
- **Question 3**: How can the link between artisan food products and biological heritage be used in the creation of economic value?
CHAPTER 2: PREVIOUS RESEARCH

This previous research section aims at reviewing the research done in the field of research in which this present study is incorporated in, that is to say local foods. For such purpose this section is divided into four subsections, reviewing research done in order to show the link between food systems and nature conservation (2.1.), by what means one communicates about local food products (2.2.), how consumers perceive and value local food (2.3.), and how the situation in the rural region of Jämtland is (2.4.). Finally the section ends with a discussion about the contribution of this present study to the field of local foods, but also environmental communication (2.5.).

2.1. Food systems and nature conservation

Artisan and local food is usually presented as a response to industrialisation and globalisation and as a more sustainable food system than conventional food systems (Feenstra 1997) or even organic food systems (Nygård and Wramner 2014); several reasons are presented: on the environmental level it reduces the transport of foods from producers to consumers (Pratt 2007); on the social level it reconnects the consumers to the producers, which in turn increases consumers’ trust and confidence in food origin and safety (Roininen et al. 2006); and on the economic level it creates jobs and provides support for local farmers and producers (Delind 2006) which in turn may eventually contribute to the development of the economy of rural areas (Bonow 2014, Nygård and Wramner 2014).

Moreover, another argument is presented in the literature, namely that local, traditional, small-scale food production systems promote nature conservation by contributing to biodiversity in agricultural landscapes (Wramner and Nygård 2014), where biodiversity has deteriorated because of both intensity, scale and non-variety of agricultural activities that landscapes have experienced during the 20th century. In other words it is argued that niche production, in being characterised by a low intensity, a small size and a large variety, is a good way of conserving biodiversity (Wramner and Nygård 2014). Therefore production of raw materials (i.e. milk and meat) resulting from the use of pastures is considered as sustainable, since grazing livestock contributes – and maintains – plant and animal heterogeneity in pastures (Rook and Tallowin 2003). Additionally some studies show that the
grazing animal types as well as their dietary choice play an important role in the heterogeneity of such environments (Rook et al. 2004; Rook and Tallowin 2003).

2.2. Communicating local food products

A part of the literature about local foods focuses on local foods contribution to the creation and the maintenance of a regional identity, as it is the case in Delind (2006) and Gallen et al. (2012). Indeed, this is mainly done through the process of connecting and embedding a product in a place, where the relationship between this product and a place “is both rooted in time and in shared local knowledge” and know-how (Bérard and Marchenay 2007) but also in memory (Delind 2006). Such products can be promoted by the means of labels or Geographic Indications (such as Protected Designation of Origin and Protected Geographical Indication), that both aim at protecting the relationship between a product and a place (Bérard and Marchenay 2007). The use of such labels is a way of transmitting some characteristics of the products (like historic roots and know-how) and also values, to consumers, as it is the case with the concept of terroir (Paxson 2010). According to Wramner and Nygård (2014), articulating the link between product characteristics and production place is beneficial for nature conservation.

Furthermore, a product’s brand – relying on a regional identity and a place – is also a way of transmitting information on this product to consumers, but only if these consumers have a “sense of place” (that is to say consumers assimilate the information only if they feel that they belong to the product’s place of origin) (Bonow and Rytkönen 2013a:67). In the sector of cheese production in Jämtland, Bonow and Rytkönen (2013a) state that producers’ identity, but also values and norms, can be transmitted through the storytelling of their own and their products’ history; this storytelling can take place on different occasions, for example on producers’ website or during guiding tours of their farms, and in the case of producers in Jämtland, the storytelling is a lot about love for animals, nature and the place.

An additional element that is mentioned in the literature as a way of communicating with the consumers is the distribution means; indeed, buying products direct at the producers’ shop, or at a market, does not transmit the same message as buying the same product at a supermarket (Bonow and Rytkönen 2013a, Starr 2010); in the first case, the product would be perceived as exclusive and of high quality.
2.3. Consumers’ perception of local food products

Another part of the literature has also investigated the consumers’ perception of local foods (Zepeda and Li 2006, Roininen et al. 2005, Weatherell et al. 2003, Kupiec and Revell 1998, Gallen et al. 2012). The point of departure of some studies is the fact that there is no universal definition of what “local” is; it can mean different things from one researcher to another one, but also from one consumer to another depending on their own priorities, values, perceptions and location (Zepeda and Li 2006, Blake et al. 2010).

When choosing food, consumers mainly prioritise intrinsic food qualities (i.e. taste, freshness, availability, appearance and healthiness), and would buy local “if the offerings meet their normal, food intrinsic and practical needs” (Weatherell et al. 2003:241). However, the local food ‘concerned consumers’ (Weatherell et al. 2003) also prioritise food origin, image and convenience, moral and health concerns, where the price is suggested as less important (Weatherell et al. 2003). Also such local food concerned consumers show a high level of awareness and concern for provisioning issues, and a great interest in buying local (Weatherell et al. 2003).

Furthermore different attributes are associated to local and artisan food. Rytkönen (2016) mentions quality (i.e. better quality than commodity foods), living rurality and food tradition as important attributes and reasons for people to buy locally produced cheese in Jämtland. Roininen et al. (2005) mentions quality and freshness, support of local economy, short distance, trust in products’ origin and – to less extent – environment, health and animal welfare.

Additionally people’s origin is presented as something important in the choice of buying local, since people living in rural areas are more likely to buy local than people living in urban areas (Weatherell et al. 2003, Roininen et al. 2005). In the case of culinary tourism, Sims (2009) argues that tourists search for authenticity, which implies knowledge about food’s origin and production methods (Pratt 2007); in other words, “consumers may […] try to recapture the aura of authenticity through consuming goods that are valued precisely because their connection to the world of production is known” (Pratt 2007:295).

2.4. Artisan and local food in Jämtland

It is also significant to look at what has been written about artisan and local foods in Jämtland, which is usually presented as a rural region that responded to industrialisation by a reduced
number of farms and decreased incomes at the same time as emigration (Bonow 2014). However Jämtland has some potentials, such as tourism and gastronomy in order to develop its economy (Bonow and Rytkönen 2012); in its report, a project for culinary regions, constituted of the Federation of Swedish Farmers (LRF), Restaurangakademien and Södertörns Högskola (Rytkönen 2014) identifies the characteristics of the gastronomy structure in Jämtland, stating that cooperation (SWE: “samverkan”) between the different actors from artisans to the County Administrative Board (Länstyrelsen) to the Swedish Resource Centrum for Artisanship (Eldrimner) had been significant in making Östersund a UNESCO Culinary City. Additionally Jämtland can be characterised by its diversification of products (Rytkönen 2014, Bonow 2014).

In addition to cooperation and diversification, other strategies to create commercial and economic opportunities used within the local agro-food system of farm dairies are identified, namely the formation of collective actions and networks among producers (such as Eldrimner and Jämtspira), the diversification of farm dairies (where entrepreneurs develop café, shops or touristic activities), the adoption of foreign know-how and experience, and also the modernisation of traditional products by re-creating them (Rytkönen 2016). Also, it is suggested that institutional support is significant for the success of these small-scale cheese productions (Bonow 2014). Furthermore Bonow and Rytkönen (2013b) state that many farm dairies in Jämtland are quite recent, some being managed by people who have not grown up in a farm; the authors also identify the different (economic, social, symbolic and cultural) capitals needed and used to get started in this sector, and it is stated that these producers are more passion than profit driven, able to innovate and cooperate with each other and with institutions.

The different strategies mentioned above, and the creation and promotion of cheese brands based on the place of origin “reinforce the local image and regional identity […] thereby helping to promote local landscapes, culture and heritage” (Bonow 2014:154). Finally the project for culinary regions (Rytkönen 2014) argues that, for the success of regional development, the focus should be put on customers / consumers and for such purpose, values – relying on the products and their taste, but also the experience they represent – should be communicated to these customers / consumers.
2.5. Contribution of this study

This previous research section has shown that research about local foods has been done in several directions: their benefit on nature conservation, their contribution to the creation of a local identity, the role of labels, brands, storytelling and distribution means, their diverging definition, the consumers’ priorities and associations, the role of people’s origin, and finally the (food) strategies used in Jämtland in order to develop its economy.

The studies mentioned here are all relevant for the present study, which contributes to the research field of local foods and more especially attempts to fill a gap in the research of a very specific type of local foods, namely artisan foods resulting from a traditional and sustainable use of pastures contributing thus to the preservation of biological heritage. Indeed biological heritage is a quite new concept and how artisan food producers and consumers, as well as diverse agencies, understand and describe it is still unexplored. Furthermore questions such as ‘is preservation of biological heritage important for artisan food producers’, ‘are consumers aware of that’, ‘can biological heritage be used for the creation of economic value’ are hitherto unseen and unexplored within the research field of local foods but are relevant, since such local foods have potential for both nature conservation and producers’ and a whole region’s financial viability.

Additionally this present study is an attempt to link the local food field to the environmental communication field, in order to investigate how biological heritage is understood, described and communicated within the frame of artisan food production, sales, purchases and consumption. In this present study environmental communication is used as the theoretical framework adopted for the analysis of the empirical material, but this study can also contribute to the research field of environmental communication since it has as focus how one understands, describes and communicates about a phenomenon within the natural world and how these understanding, description and communication are a learning process. Indeed this present study, unlike most of research on local foods, takes a phenomenographic approach in order to investigate the opinions of artisan food producers and consumers as well as agencies concerning biological heritage as a phenomenon.

For these reasons this study may contribute to both the local food research field and the environmental communication research field, attempting for such purpose to fill the gap in the understanding, description and communication of biological heritage within the frame of a very specific local food.
CHAPTER 3: THEORETICAL FRAMEWORK

To explore how producers, consumers and agencies understand, describe and communicate about biological heritage within the frame of production, consumption, sales and purchases of artisan food products, a theoretical framework must be developed and the chosen perspective for this thesis is environmental communication, that is to say the transmission of an environmental message – in this case biological heritage – from communicators to receivers. This theory section is thus divided into four subsections. Subsection 3.1. introduces the concept of environmental communication and how the literature defines it. Then subsection 3.2. explores how an environmental message is created and sent accordingly to what is relevant for this present study. Similarly, subsection 3.3. of this theoretical framework explores how an environmental message is received and on what this reception may depend. Finally subsection 3.4. aims at discussing the theoretical framework and explaining how it will be used for the analysis.

3.1. Environmental communication

The first part of this theory section aims at exploring what environmental communication is and how the literature defines it. But before that, it is relevant to have a look at what ‘communication’ is. First of all there can be different starting points when considering communication. Some consider communication as broad and inclusive. It is the case for Carbaugh (1999), for example, who wrote in his article “‘Just Listen’: ‘Listening’ and Landscape Among the Blackfeet” that listening to a place or a landscape is a way of communication that is both reflective as well as revelatory (p.250) increasing thus the intimate links between a place and a person. However some others would not consider it as communication. In his book Die Gesellschaft der Gesellschaft (1997) Luhmann argues that “society is unthinkable without communication, but communication is also unthinkable without society” (p.13), stating thus that problems – such as pollutions – exist because we speak about them; communication is thus a social act.

Furthermore some have attempted to build communication models. There is for example the Shannon-Weaver model, that suggests a linear model for human communication; it defines human communication as a transmission of information, from an information source to a destination, via a transmitter, a channel and a receiver, where the message is transmitted
in the form of a signal; also an element integrated in this model is noise, which is an interference with the message (Meadow 2006:104). However the Shannon-Weaver model is criticized for being too simplistic, omitting meanings and the effects of communication on receivers’ awareness (Cox 2013:18).

This is especially true when we communicate about the natural world, and this leads us to environmental communication. The field of Environmental Communication has emerged during the 1980s and it can be considered as a metafield cutting across different disciplines, such as among others rhetorical theory, social movement theory and discourse theory. But we can also consider environmental communication more precisely and more concretely. As defined by Corbett (2006) in the book “Communicating Nature. How We Create and Understand Environmental Messages”, environmental communication is “the various ways we communicate about the natural world” (p.2) and according to this author these ways of communication are multiple and can be both intentional / purposeful and subconscious; therefore, intentional messages and forms of communication can take the form of a news story, an advertisement or a photo, while subconscious messages and forms of communication take the form of roads without sidewalk or even bottled water for example as mentioned by Corbett (2006:2-3).

Similarly Cox (2013) defines environmental communication, and thus the words, pictures and actions used to communicate about the natural world, as ‘symbolic action[s]’ (p.18) transmitting not only information, but also meanings and understandings about the natural world. Furthermore the message says something about our relationship to the natural world, because it “communicate[s] what is valued, what is considered as ‘natural’ and what is desired” (Corbett, 2006:1), influencing thus our perceptions of the natural world.

In other words, it is through social interactions – and thus through human communication – that we create meanings, understandings, beliefs and representations of and attitudes towards the natural world (Cox 2007:12), that is to say that all this is socially constructed (Corbett 2006:6), and in turn an environmental message can mean differently to different persons, since they have “ideological roots that are deep and that are influenced by individual experience, geography, history, and culture” (Corbett 2006:6).

3.1.1. Environmental belief systems and their formation

Our meanings, understandings, beliefs, representations of and attitudes towards the natural world are socially constructed, and reflect at the same time one’s environmental belief system – also called ideology – which is defined by Corbett (2006) as “a way of thinking about the
natural world that a person uses to justify actions towards it” (p.26). In other words, we all have an environmental belief system that guides how we value the natural world and the nonhuman species, how we value environmental messages that we send and receive, as well as how we act towards the natural world (Corbett 2006:26).

It is common to present the different environmental belief systems along a scale whose extremes are anthropocentrism and ecocentrism. On the one hand anthropocentrism is a hierarchical, human-centred ideology where humans and nature are separated, and where natural resources are destined to human use only; it is thus the idea of valuing and protecting nature for the benefits or material the natural world can provide to humans and their quality of life (Gagnon Thompson and Barton 1994:149). On the other hand ecocentrism is a non-hierarchical ideology where humans and nature are interdependent and where non-living and nonhuman elements are as much valuable as humans (Corbett 2006:27); it is thus the idea of protecting nature for its intrinsic value (Gagnon Thompson and Barton 1994:149). In her book, Corbett (2006) presents five different ideologies along the scale anthropocentrism-ecocentrism, namely unrestrained instrumentalism, conservationism, preservationism, ethics and value-driven ideologies, and finally transformative ideologies (p.29).

Again according to Corbett (2006) these environmental belief systems are important in the communication of environmental messages, since they “become the lens through which we interpret words and behaviour […] about the natural world” (p.13). In the same way one may wonder if these belief systems – guiding our way of interpreting messages and valuing the natural world – also influence the way we communicate about the natural world, that is to say what we communicate about the natural world and how we do it. There are reasons to think that it is the case, since Corbett (2006) argues that ”all environmental messages are crafted from a perspective, informed by a worldview, reference personal relationships and experiences […]” (p.13).

Furthermore such belief systems have mainly been shaped through a mixture of both individual and cultural elements, and the first element is the historical and cultural context and Corbett (2006) gives the example of how the USA:s background of colonization in addition to the settlers’ religious traditions have influenced the belief systems of Americans (p.20).

Moreover the second element shaping one’s environmental belief system is childhood experiences, where it is possible to distinguish between on the one hand direct experiences – that implies an actual physical contact with the natural world and nonhuman species (such as building forts in a wood) – and on the other hand indirect experiences – that implies physical contact in restricted and programmed contexts (such as visiting a zoo).
Finally, the third element shaping one’s environmental belief system is the sense of place, where a place is a “physical space imbued with meaning” (Corbett 2006:17); this meaning can be constituted of either instrumental values – such as thinking of what we can use a land for – and / or intangible (and intrinsic) values – such as thinking of a land in terms of beauty and belonging. In other words one’s link to a place contributes to make sense of the world, and that is why learning about a place and its functioning may increase our care and respect for it, and in turn our willingness to safeguard it (Corbett 2006:19). The concepts of place and sense of place are also elaborated in Carbaugh and Cerulli (2013); the authors state first that everybody is “emplaced somewhere, not just anywhere” (p.5) and that places serve the function of “geography for our thinking, gathering our thoughts, holding our attentiveness” (p.6), forming thus the circumstances and grounds of people’s existence, their lives and experiences. Furthermore the authors argue that the sense of place is created through communication, since communication builds and shapes the (common and public) meanings we have about places, including at the same time everything that belongs to a place such as people, animals, climate or memories (p.7).

3.2. Creating and sending an environmental message

In this study creating and sending an environmental message is understood as the use of language – in the form of identification as suggested by Milstein (2011) and framing as suggested by Lakoff (2010) and Entman (1993) – on the one hand, and the use of some marketing tools – in the form of green image, green product attribution and storytelling – on the other hand. This subsection aims at developing these concepts.

3.2.1. Language: identification and framing

According to Cox (2013), language plays a significant role in the social-symbolic construction of nature. As argued by Herndl and Brown (1996), the concept of ‘environment’ has been constructed with our language and the way we use it (p.3 in Cox 2013:60), and that in turn there is no environment that is separate from our language and the words we use to represent it. In other words language and the words we use are capable of affecting and constructing the perceptions we have of nature (Cox 2013:60), characterizing thus certain conditions or facts one way rather than another way.

Indeed Cox (2013) argues that our language forms and shapes our experiences, and shapes thus how we perceive our world (p.61). A first way of using language in order to
verbalise but also materialise our relation with the natural world is identification, and more especially the acts of pointing to and naming of aspects of nature. In the article “Nature identification: The Power of Pointing and Naming” (2011), Milstein argues that identification practices allow us to discern and categorize parts of nature, generating thus “certain kinds of ecocultural knowledge that constitute aspects of nature as considered, unique, sorted, or marked” (p.4). In turn, Milstein (2011) argues, identification practices contribute to distinguish not only some parts of nature – for example a species – as ‘unique’, but also as ‘considered’, ‘independent’ and ‘separate’ from an ecosystem viewed and perceived as less special. However, according to Sowards (2006 in Milstein 2011:20) the survival of endangered species is dependent upon a positive identification that goes beyond individual species, that is to say a positive identification and a clear connection to species’ habitats and ecosystems.

Furthermore Cox (2013) mentions also the importance and significance of rhetorical perspective and persuasion in communication, defining rhetoric “as a purposeful choice among the available means of persuasion in accomplishing some effect or outcome” (p.63). According to Cox (2013) the rhetorical perspective has two functions, namely that (1) it focuses on the efforts to influence people’s attitudes and behaviours through communication on the one hand, and that (2) such determined usage of language contributes to shape people’s perception and thinking of the world on the other hand (p.63).

One parameter of rhetorical perspective is communication frames, which are mainly used in news media and in the creation of environmental problems. According to Cox (2013), a frame “helps to construct a particular view or orientation to some aspect of reality” (p.67). In the article “Why it Matters How We Frame the Environment” (2010), Lakoff defines it as “(typically unconscious) conceptual structures that people have in their brain circuitry to understand environmental issues” (p.74), including roles and relations between these roles. Another definition of frame is developed by Entman in the article “Framing: Toward Clarification of a Fractured Paradigm” (1993), where framing is a matter of selection and salience. Indeed to frame is “to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and / or treatment recommendation for the item described” (p.56). In other words to frame is the fact to make an aspect of information “more noticeable, meaningful, or more memorable to audiences” (Entman 1993:53).

Furthermore Lakoff (2010) argues that framing is unavoidable, since all knowledge, all thinking but also all talking involves framing (Lakoff 2010:71), and that frames are
communicated through language but also visual imagery, which implies that words in themselves are not frames, but they can be used in order to activate a particular frame. In turn Lakoff (2010) states that it is essential for receivers to have a set of frames that allows him or her to understand as well as make sense of the information and the facts (p.73), and Entman (1993) mentions the risk that the frame activated in the receivers’ brain may – or may not – reflect the communicated frame nor the communicators’ framing intention (p.52-53).

Finally when it is the case where it does reflect, it is certainly what Entman (1993) calls ‘dominant meaning’, which “consists of the problem, causal, evaluative, and treatment interpretations with the highest probability of being noticed, processed, and accepted by the most people” (p.56). Similarly to Entman, Lakoff (2010) mentions that an ideological language that is repeated very often becomes in turn what he calls ‘normal language’ (p.72) and that this language activates the concerned ideology in the brains of people in an unconscious way.

3.2.2. Green marketing: green product attribution, green image and storytelling

In her book “Communicating Nature. How We Create and Understand Environmental Messages” (2006), Corbett argues that marketing – defined as the selling process of a product that includes the pricing, the distribution, the positioning and the promotion of this product (p.149) – and advertisements also communicate something about a product or the company’s perception and behaviour toward the natural world. Indeed Cox (2013) mentions the use of marketing in order to create environmental identities for both companies’ products, images and behaviours, in turn defining the concept of green marketing as “a term used to refer to a corporation’s attempt to associate its products, services, or identity with environmental values and images” (Cox 2013:286).

Therefore Corbett (2006) reviews four different types of ads and other marketing tools (such as product packaging for example) that feature the environment, namely nature-as-backdrop, environmental advocacy, green product attributes and green image, and these last two types are relevant for this present study.

Indeed on the one hand green product attribution (GPA) refers to one’s attempt to market a product as affecting the environment in a minimal manner (Cox 2013:286) at the same time as to “project an image of high quality, including environmental sensitivity, relating both to a product’s attributes and its manufacturer’s track record for environmental compliance” (Ottman 1993:47 in Cox 2013:286). Therefore in highlighting green attributes of a product, a company attempts to persuade consumers that they contribute to a green lifestyle
in buying such a product but also that the relationship between a product with green attributes and the environment is less harmful in comparison to a product without such qualities (Corbett 2006:151). According to Cox (2013), green marketing claims – that can be reinforced by environmentally friendly labels (Cox 2013:287) – can thus be among others organic, nontoxic, biodegradable, all natural, free range, or even humanely raised (p.290).

On the other hand green image (GI) – also called ‘image enhancement’ in Cox (2013) – relies upon the concepts of (1) brand – defined by the American Marketing Association (2004) as the name, or symbol, or whatever feature that “identifies one seller’s good or service as distinct from those of other sellers” (in Argenti and Druckenmiller 2006:368) – and (2) identity – consisting of companies’ defining attributes (i.e. people and products / services) (Argenti and Druckenmiller 2004). Argenti and Druckenmiller (2004) state that the image is the “reflection of an organisation’s identity and its corporate brand” (p.367), which is seen from the viewpoint of one constituency. In turn, a company attempting to spread a green image focuses not necessarily on a product in itself, but instead attempts to draw attention on its actions that could be interpreted as environmentally friendly, which would be a reason for consumers to support this company (Corbett 2006:152). Image enhancement is thus made in accordance to society’s environmental values (Cox 2013:291).

Finally and more generally, a marketing tool that can be used by companies is storytelling, that is to say the fact of telling a story. Storytelling can be defined as “to share knowledge or experience through a story and episode to deliver a complicated idea, concept, and causal relation” (Sole and Wilson 1999 in Lee and Shin 2015:285), and can be used in order to create emotional fellowship, strengthen a product’s identity, as well as create value and influence a product’s price and image (Lee and Shin 2015:285), with the primary aim to differentiate one’s products from others’ (Mora and Livat 2013:4). Furthermore Lee and Shin (2015) argue that a story should be attractive so that people are interested in listening to it, and Mora and Livat (2013) identify three categories within a story’s framework, namely (1) aims, action plan and results, (2) constraints and adversity, and (3) the “hero”’s cognitive ability as well as behaviour (p.4). Moreover according to Rytönen and Bonow (2013), storytelling is a good way for companies to communicate about their values and their identity through telling their history and brand’s history; in the context of dairy farms in Jämtland, storytelling is often about how the company was founded and about the place where the company is.
3.3. Receiving and understanding an environmental message

In this study receiving and understanding an environmental message is understood as the process of perception – as mainly suggested by Salomon (2007) – and as environmental knowledge and awareness – as mainly suggested by Corbett (2006) and Kollmuss and Agyeman (2002). This subsection aims at developing these concepts.

3.3.1. Perception

Efron (1969) sees perception as the first form of “cognitive contact” (p.137) that a person has with the surrounding world and he thus defines it as “the direct, immediate awareness of discriminated existents which results from patterns of energy absorption by groups of receptors” (p.147), where ‘existent’ stands for an existing element (p.145) and ‘discriminated’ stands for isolated from other existents that reach a person’s receptors (p.145).

Another definition of perception is provided by Solomon (2007) who defines it as the process “in which we absorb and interpret information about products and other people from the outside world” (p.45). According to him it is thus a process of selection, organisation and interpretation of sensations, referring to the instantaneous response of one’s sensory receptors – such as the fingers, the mouth, the nose, the ears and the eyes – to some stimulus, taking the form of texture, odour, sound, light and even colour (Solomon 2007:49). In other words perception is what we add to these sensations in order to create meaning, and Solomon (2007) argues that this process mainly depends upon individuals’ biases, needs, and experiences (p.49) that are proper to each.

The process of perception as explained by Solomon (2007) is constituted of three stages, namely exposure, attention and interpretation. The first stage is exposure; it refers to when a stimulus – or an event leading to a response – is detected by an individual’s sensory receptors, which implies that individuals may concentrate only on some stimuli (i.e. a message) and ignore some other messages they are not interested in. Solomon (2007) speaks also about subliminal perception, which happens when stimulus is inferior to one’s levels of awareness (p.63), implying that the message is neither heard nor seen.

Furthermore the second stage is attention; it refers to “the extent to which processing activity is devoted to a particular stimulus” (Solomon 2007:66). People – exposed to many different information at any time – process a selection of what to pay attention to, and this selection depends on personal selection factors (such as individuals’ needs, and experience
and familiarity to a stimulus) as well as stimulus selection factors (that is to say the characteristics of a stimulus, being unique or different from others for example).

Finally the third stage is interpretation; it refers to the ‘meaning’ (Solomon 2007:70) that we give to a sensory stimuli, and Solomon states that both perception of the stimuli as well as the meaning we give to it varies among people because of their ‘schema’, defined as “an organised collection of beliefs and feelings represented in a cognitive category” (Solomon 2007:70). One factor determining how a stimulus might be interpreted is the relationship between this stimulus and other images, events or sensations where people attempt to give meaning to a whole rather than separate parts.

Another perspective – the semiotic perspective – suggests that we attempt to make sense of stimulus by interpreting its meaning accordingly to the associations we have and make with this stimulus, implying in turn that the resulting meaning is “influenced by what we make of the symbolism we perceive” (Solomon 2007:71). This semiotic perspective consists of three components, namely an object (for example the element in focus in the message), a sign / symbol (i.e. the sensory image representing the desired meaning of the object in focus) and an interpretant (which is the “meaning derived”, Solomon 2007:72).

### 3.3.2. Environmental knowledge and awareness

Some suggest that increasing environmental awareness could be a potential way of addressing environmental problems caused by humans (Haron, Paim and Yahaya 2005:426) and the literature often associates environmental knowledge to environmental attitudes and behaviours. However many acknowledge that the link between environmental knowledge and awareness and pro-environmental behaviour is neither direct nor causal (Kollmuss and Agyeman 2002:250), and Corbett (2006) states that – although the trend is positive – the relationship knowledge-attitude-behaviour is too simplistic, linear and not very strong (p.67).

However environmental messages – for example in advocacy campaigns – have often for aim to increase people’s awareness of environmental issues and there are reasons to think that the level of environmental awareness and knowledge plays a role in people’s understanding, description and communication about an environmental phenomenon (Corbett 2006:67). Environmental awareness and environmental knowledge have been defined in different ways; for example Zsóka et al (2013) define the concept ‘environmental knowledge’ as “a term used to mean knowledge and awareness about environmental problems and possible solutions to those problems” (p.127). Differently Kollmuss and Agyeman (2002) suggest ‘environmental knowledge’ as a subcategory of ‘environmental awareness’, in which
an ‘emotional involvement’ also plays a role, and they define environmental awareness as the fact of knowing that human behaviour has impact on the environmental (p.253); according to them, awareness has thus two components, namely a cognitive knowledge-based component and an affective, perception-based component, this latter defined as “the extent to which we have an affective relationship to the natural world” and even “the ability to have an emotional reaction when confronted with environmental degradation” (p.254).

Furthermore Corbett (2006) argues the importance of distinguishing between the different types of environmental knowledge, and she suggests three different types. On the one hand Corbett (2006) suggests that ‘heard of’ level of environmental knowledge as the first level; according to her, this level refers to people being aware of important and general environmental issues, but who do not necessarily do something about it. On the other hand Corbett (2006) suggests the ‘personal conduct’ knowledge as the second level; according to her, this level goes beyond awareness and refers to people taking personal action, such as the fact of buying green products. And finally Corbett (2006) suggests the ‘environmental literacy’ knowledge as the third level; according to her, this level refers to people having in-depth information and “understanding of underlying principles, consequences and applications” (p.67).

Additionally, according to Kollmuss and Agyeman (2002) there are three obstacles to people’ environmental awareness; the first obstacle is the non-immediacy of ecological problems, that is to say that there are some problems, such as the ozone hole but also biodiversity loss, that are not tangible nor perceivable and need thus to be translated into understandable and perceivable information through language, pictures or even graphs. The second obstacle to environmental awareness is the slow and gradual ecological destruction, on the contrary of severe and rapid changes that are easily perceivable by humans. Finally the third obstacle to environmental awareness according to Kollmuss and Agyeman (2002) is the complex systems; indeed most environmental problems are complex and people tend to simplify them in order to understand them, which prevents people from deeper understandings at the same time as it leads to an underestimation of the extent of these problems (p.253-254).

3.4. Theoretical discussion

In the previous subsections of this theoretical framework several concepts related to environmental communication and the process of communication were presented. Indeed
communication is presented as a social act – that is to say taking place within the society – and environmental communication is defined as the different (intentional and subconscious) ways we communicate about the natural world. Also the words and images we use and the actions we make communicate not only information, but also meanings and understandings about the natural world, which in turn indicates one’s relation towards the natural world and how one values it; at the same time it reflects thus one’s environmental belief system, which is argued to be the “lens” (Corbett 2006:13) through which we interpret messages, but it is likely that it is also the lens through which we create environmental messages. Furthermore several concepts within the communication process were presented, namely identification, framing, green image, green attribution and storytelling on the one hand, as well as perception and environmental knowledge and awareness on the other hand.

The present study relies upon the idea that biological heritage is a concept communicated from agencies to producers, and from producers to consumers as it is suggested in Figure 1. In the present case the agencies, i.e. the County Administrative Board, Eldrimner and the Federation of Swedish Farmers, who provide any kind of supports to producers, serve as a context for investigating producers’ understandings of biological heritage; therefore a lot of focus is put on the stated interaction between artisan food producers and consumers and the transfer of meaning of biological heritage, through communication channels such as websites, social medias, ads, etc. but also at the actual points of sale. Furthermore and as it will be presented in chapter 4, this present study takes a phenomenographic approach, which is an approach suggesting that people’s understanding of the surrounding world is the result of a learning process, which can change throughout people’s lives. This theoretical framework assumes that the learning process in question can be investigated through the concepts of ‘understanding’, ‘description’ and ‘communication’ and thus through the different tools covered in this theoretical section.

The main idea with the model suggested here is that individuals – with the help of different tools such as framing, identification, green product attribution, green image and storytelling – attempt to select, highlight and emphasise one aspect of reality instead of others, that is to say that they highlight and transfer one aspect / meaning of biological heritage instead of others. The reception of this meaning may depend upon the activated frame, perception, environmental knowledge / awareness as interpreted in this present study. Sending and receiving a meaning is thus a social act and a learning process, and is thus continuously influenced by the individuals taking part into the process of communication, understood here as the context of production, consumption, sales and purchases of artisan food products.
Figure 1: Model showing actors’ interaction about a phenomenon

AGENCIES
- Understanding & description: framing; identification

PRODUCERS
- Understanding: perception; frame activated; awareness & knowledge
- Description & Communication: GPA; GI; storytelling

CONSUMERS
- Understanding & description: perception; frame activated; awareness & knowledge
- buying decision

Point of sale, website, social medias, price tags, ads, etc.
To contribute with knowledge about how biological heritage is understood, described and communicated within the frame of production, consumption, sales and purchases of artisan food, a phenomenographic, qualitative study was chosen and conducted. Therefore this section describes and explains the study’s approach and research design, and how the study is actually conducted. Additionally the different actors included in this present study are introduced and presented in this methodological section.

4.1. Methodology

This present study has a social constructivist world view as a starting point, which argues that “individuals seek understanding of the world in which they live and work” (Creswell 2014:8) and that individuals construct their own – subjective – ideas about the world and how it works. Such a world view acknowledges thus that individuals’ meanings of the world are varied, multiple (Creswell 2014:8) and change over time (Novak 1987:349 in Loughland, Reid and Petocz 2002:190). Therefore such world view is reflected by and applied through a qualitative approach, which is well adapted to explore and understand the different meanings “individuals or groups ascribe to a social or human problem” (Creswell 2014:4) or also commonly called ‘phenomenon’, with a focus on catching the complexity of the situation.

Therefore this study is a qualitative research in exploring how the concept of biological heritage is understood, described and communicated by three different groups of individuals (i.e. artisan food producers, artisan food consumers and agencies). The study attempts to “establish the meaning of a phenomenon (i.e. biological heritage) from the views of the participants” (Creswell 2014:19), and this meaning is assumed to be social, created by the interaction between individuals; in turn such a qualitative research is inductive, that is to say that I – as a researcher – generate meaning from and attempt to make sense of the collected data, involving thus my own experiences and my own background in the research.

More specifically to explore how biological heritage is understood, described and communicated by different groups of individuals, this qualitative research adopts a phenomenographic design, which is a research approach and design used in order to describe and analyse people’s thoughts about and way of understanding of different phenomena (Dahlgren and Johansson 2015:162); also, according to Dahlgren and Johansson (2015), our
way of understanding the surrounding world is the result of a learning process that occurs throughout our lives and that in turn might lead us to change the meaning we attribute to our understanding (p.162). Furthermore the same authors (2015) state that this research method mainly relies upon two assumptions; the first assumption is that people perceive phenomena in the surrounding world in different ways and the second assumption is that there are limited ways in which these phenomena can be perceived (p.162). In turn the focus of such research design is on variations between people’s thoughts rather than on similarities between them.

Therefore phenomenography has two central components. Firstly the component of ‘conception’ (SWE: “uppfattning”) stands for a way of understanding or experiencing something, and this conception can be (qualitatively) expressed in many different ways. Indeed Dahlgren and Johansson (2015) argue that if one asks different people on how they perceive and experience a phenomenon, it is likely that one will be able to distinguish different ways of understanding this phenomenon (p.163). Thus the second component of phenomenography is the ‘outcome space’ (SWE: “utfallsrum”), which is the set of conceptions (SWE: “uppsättning av uppfattningar”) visible within the material. However Dahlgren and Johansson (2015) mention a limitation in using such a design, that is to say that in a survey one is never sure of discovering all the different possible ways of perceiving a phenomenon, but the number of possible ways of perceiving a phenomenon is likely to increase when one increases the number of subjects or when one explore another group of subjects (p.163).

In other words this phenomenographic design as suggested by Dahlgren and Johansson (2015) consists of two components, that is to say on the one hand the ‘conceptions’ – i.e. the phenomena or concepts one wants to test, also called the ‘ideal model’ – and on the other hand the ‘outcome space’ / ‘set of conceptions’ – i.e. what the subjects actually say about and perceive these phenomena or concepts. Therefore and to conclude, since a phenomenographic design is used for the investigation of individuals’ learning process of a phenomenon (i.e. biological heritage), it appears to be a suitable method for the use of the theoretical framework adopted in this study, namely an environmental communication framework. Indeed and as it was argued in chapter 3, (environmental) communication is a social and interacting act, taking place in society, where people create and send messages while others receive and perceive them. In this present study this communication process is thus also seen as contributing to individuals’ learning process of a phenomenon, which is the reason why theory and method match with each other.
4.2. Region of study

The area in particular focus in this study – where a large part of the data was collected – is the rural region of mid-northern Sweden called Jämtland (see Figure 2), which represents approximately 12% of the national area but only 1.4% of the national population (Rytkönen 2016:4). Jämtland is a region characterised by mountainous areas and summer farms (Bonow 2013:135, Rytkönen 2016:4), and more specifically the number of summer farms is nowadays estimated at approximately 100 by the County Administrative Board; 25 of these 100 summer farms are still living and traditionally used, that is to say that they consist of milk animal husbandry, free grazing and preparation of the milk, while the 75 other summer farms are mainly used for animal husbandry and haymaking (www.lansstyrelsen.se; d). Additionally, it is said that such summer farms “have in a clear way characterised the food culture in the County of Jämtland since historical times” (Rytkönen 2016:5) and animals have been used for the production of different products such as butter and cheese. Nowadays the region Jämtland is indeed characterised by a traditional artisan food system, especially the production and consumption of cheese and goat products, which has experienced a revival since the 1980’s (Bonow 2013:136 and 138). Therefore and for these reasons, it seems relevant and interesting to investigate how biological heritage is understood, described and communicated in the context of artisan food production, consumption, sales and purchases in this region.

4.3. Data collection and analysis

Since the study’s purpose is to contribute with knowledge about how biological heritage is understood, described and communicated by different groups of individuals within the frame of production, consumption, sales and purchases of artisan food, this study approaches its research questions based on qualitative empirical data collection and primary sources in the form of both semi-structured interviews and questionnaires. This section describes the process...
of data collection on the one hand and the data analysis on the other hand. The different actors
taking part in this study will also be presented in this subsection.

4.3.1. Interviews

Semi-structured interviews were conducted with three specialists at three different agencies
directly or indirectly related to pastures maintenance, food production or artisan food, that is
to say (1) County Administrative Board of Jämtland (Länsstyrelsen), (2) Sweden’s Resource
Centre for Artisan Food (Eldrimner), and (3) the Federation of Swedish Farmers
(Lantbrukarnas Riksförbund – LRF), called in this study interviewee#1, interviewee#2 and
interviewee#3 respectively.

The reason for performing semi-structured interviews is that this form of interview has
the “purpose of obtaining description of the life world of the interviewee in order to interpret
the meaning of the described phenomenon” (Brinkmann and Kvale 2016:6). Indeed semi-
structured interviews – that are neither fully open nor channelled by many specific questions –
leaves room for the interviewees to speak openly with her / his own words, and in turn the
role of the researcher is to refocus the interview on the objectives and ask questions to which
the interviewee does not come by himself (Van Campenhoudt and Quivy 2011:171). Since the
aim of this qualitative study is to gain knowledge about how biological heritage is understood,
described and communicated, semi-structured interviews seem appropriated by their
flexibility and their gain of in-depth analysis elements (Van Campenhoudt and Quivy 2011:172). Furthermore according to Dahlgren and Johansson (2015) such semi-structured
interviews are well adapted for conducting a phenomenographic analysis (p.162).

At present a short presentation of these three different agencies is necessary to
understand why they were included in this study:

(1) The County Administrative Board, which represents the national government in the
county, is a link between on the one hand people and municipalities and, on the other
hand, the government, the parliament and the different national authorities
(www.lansstyrelsen.se; a). Therefore its main mission is to coordinate the county’s
policies and development in line with national policies and at the same time to develop
and provide services. This agency is thus responsible for the coordination,
implementation and evaluation of the national environment quality goals on the regional
level. Concretely, being responsible for the Rural Development Programme
(Landsbygdsprogrammet), the County Administrative Board evaluates the lands and
transfers the financial supports included in the Rural Development Programme from the
State / European Union to farmers and / or landowners, sets exceptions and makes the inventory of the lands in the county. At the same time this agency is responsible for giving advises to farmers / landowners, either in the form of private meetings or day-courses. In other words the County Administrative Board ensures that meadows and pastures that are left are correctly handled. For such purpose it was interesting to interview one of the people working at this agency, who is working with the advice provided to land users regarding the maintenance of meadows. Interviewee#1 was recommended to me by the persons in charge of the project “Biological heritage as sustainable value creator”.

(2) The second interview was conducted with a person working at Eldrimner, Sweden’s Resource Centre for Artisan Food, who was also recommended to me by the persons in charge of the project “Biological heritage as sustainable value creator” since interviewee#2 is mainly working with the dairy production branch. Eldrimner – which started as a regional project in 1995 – had as initial aim to stimulate the development of small-scale producers in Jämtland in both quantitative and qualitative terms, but also to develop effective marketing and resale strategies (www.eldrimner.com; a). Nowadays Eldrimner is a national entity but is still attached to the County Administrative Board of Jämtland, and its mission is to collect and communicate knowledge to artisan food producers (both beginners and established entrepreneurs) all around Sweden by providing them courses, advices, seminars, field trips, and experience exchanges (www.eldrimner.com; b). This knowledge concerns not only artisanship and actual food production, but also different aspects surrounding the activity such as marketing, entrepreneurship, sensory analysis, etc. Eldrimner consists of different branches of artisan food production, that is to say berries, fruits and vegetables processing, dairy production, fishing processing, charcuterie, and bakery. Finally it is worth mentioning that Eldrimner provides a food certification (‘Eldrimner Certifierat Mathantverk’) based on the idea that “food artisanship creates unique products with rich taste, high quality and clear identity” (www.eldrimner.com; c). This certification relies upon three criteria, namely the use of local raw material, a non-automatized manufacturing based on knowledge and experience, and the absence of additives (www.eldrimner.com; d), forming thus an environmentally, socially and economically sustainable food production (www.eldrimner.com; e).

(3) The third interview was conducted with one of the responsible persons for business development at the Federation of Swedish Farmers; not knowing which person was best
to answer my questions I contacted the region manager at LRF Jämtland who then recommended me a contact person. The Federation of Swedish Farmers is an independent and business organisation (www.lrf.se; a) constituted of 150’000 members representing 90’000 small enterprises in the sectors of farming and forestry, and is represented at every level, from local to international levels. The organisation aims at promoting a green, profitable and attractive industry that both provides food and creates employment opportunities, with the final aim to sustainably develop rural industries. LRF as an organisation is concerned by several themes, such as agricultural policy, animal welfare, food and cuisine, international cooperation, ownership rights, school contact programme, work safety, agro-tourism and research (www.lrf.se; b). On the regional level in Jämtland LRF works and invests for grazing-based production as well as promotes local food before imported food. Concretely LRF works with both the politicians – in trying to influence the (regional) food strategy, the climate strategy and the political conditions for industry sector, and promoting products resulting from grazing –, with the entrepreneurs – by giving them courses and coaching –, and finally with the public – by developing campaigns in order to promote local / Swedish food before imported food for example.

Furthermore the interviews took place at the interviewees’ respective workplace; the interviews with Eldrimner and LRF lasted between 45 to 50 minutes, while the interview with the County Administrative Board was divided into two interviews since the interviewee had to leave her / his office during lunch, and thus the first interview lasted 40 minutes and the second interview lasted 1 hour and 20 minutes. Moreover the interviews were recorded, which allows the researcher to concentrate on the interview and the topic in focus, at the same time as it makes it possible to re-listen to the interviews as well as transcribe them (Brinkmann and Kvale 2016:204-205).

The questions that were asked to the three interviewees were adapted to the different agencies according to their role in relation to producers and preservation of pastures. However the interview guides have a similar structure, that is to say that they are constituted of a dozen of questions, start with some general questions regarding the role of the agency and end with specific questions about the communication of natural and cultural values (see appendix for the interview guides), and for such purpose the interview guides consist mainly of open-ended questions as well as closed-ended questions with argumentation since the aim is to investigate how the interviewees understand and experience the phenomenon in focus. Finally the
questions were written in Swedish, the interviews were performed in Swedish and were also transcribed in Swedish.

4.3.2. Questionnaires

In addition to the interviews conducted with the agencies, two questionnaires were performed with two different groups, namely artisan food consumers and artisan food producers. The idea by performing questionnaires was to get a large number of responses when regarding consumers on the one hand, and on the other hand a questionnaire was conducted with producers for time reasons, that is to say that the majority of the producers were questioned during a workshop with the project “Biological heritage as a sustainable value creator” and there was no possibility to interview the producers one-by-one. Furthermore, although semi-structured interviews are often seen as best for conducting a phenomenographic analysis, Loughland, Reid and Petocz (2002) still argue that written responses may “provide enough evidence of variation” (p.191) across a group in order to perform a phenomenographic analysis. The reader can find the two questionnaires (in Swedish) in the Appendix.

As mentioned one of the questionnaires concerns artisan food consumers and was conducted at Gregorie Market, which is an annual market taking place in Östersund during the month of Mars. Since it is stated that Gregorie Market is the most important market in Jämtland in terms of visitors – bringing about 35’000 visitors per year (patorget.se) – it was thought as likely to get in contact with many consumers buying artisan food products.

Indeed the purpose of this questionnaire was to have a look at how consumers – who actively buy artisan food products – understand the concept of biological heritage, and if they may associate food artisanship to biological heritage. For such purpose only individuals having just bought a product from one of five producers present at the market were questioned; only artisan cheese producers were chosen because it was thought easier to only have one type of artisan product for the construction and feasibility of the survey. The selection of the five cheese producers where consumers were questioned was done as following; one week before the market, I had a look at the market’s website and was looking at all the different cheese producers who would be selling at the market. I then gathered information about these producers and looked at if they use pastures in their production, since pastures are in focus in this thesis; five producers – fulfilling these conditions – were present at the market. I then contacted these producers and asked for their authorisation to question their customers; all of them agreed.
The consumer questionnaire was in Swedish for two reasons; on the one hand it is the local language in Jämtland, and on the other hand there was a risk that some consumers were not able to read and write in English. Furthermore the questionnaire starts with some general questions regarding the buying act – that is to say who they bought the product from (question 1) and how much it costed (question 2) – and the shopping habits of the individuals – that is to say if they know the producer before that day and how (question 3 and 4), as well as how often they buy from the producer (question 4). Respondents are also asked if they have been at a summer farm or seen grazing animals, and if yes they were asked where (question 6).

The main part of the questionnaire consists essentially of closed-ended questions, where the respondents have to choose between different alternatives, and have always the possibility to tick several alternatives. These closed-ended questions aim at investigating both respondents’ motivations in buying such artisan food products (question 5), respondents’ associations they make with artisan food production (question 9) and respondents’ thoughts about the products (question 11). However two open-ended questions are also included within the questionnaire and aim at investigating what biological heritage mean to them (question 8); an open-ended question seems adapted in this case since the purpose is to see how and with what words the respondents define biological heritage (de Singly 2006:68). An open-ended question seems also adapted when respondents are also asked if they think that the producer they bought from markets her- or himself by telling about biological heritage (here a definition of biological heritage was provided and originates from the definition of Swedish National Heritage Board – see chapter 5); if they answered yes they are asked to argue how, and if they answered no they are asked to argue how it could be improved (question 12).

The questionnaire took about five to seven minutes to be answered and the initial idea was that individuals would fulfil the questionnaire themselves, which would have allowed me to distribute the questionnaire to several consumers at the same time. However I quickly saw and understood that it would be more effective that I helped the individuals by reading the questions and writing their answers myself, and this for two reasons; on the one hand the temperature was still low at this period of the year and some respondents did not want to take their gloves off in order to write, and on the other hand I noticed that the first respondents – who fulfilled the questionnaire themselves – did not answer all the questions, especially the questions 8 and 12.

Therefore 55 consumers fulfilled the questionnaire, and the reader can find a summary of the sex and age distribution among the respondents in Table 1; here follows a presentation of the respondents:
(a) **Place of residence and birth:** the majority of the respondents lived in Jämtland – that is to say 51 respondents – of which 29 of them lived in Östersund\(^3\); four respondents lived in other parts of Sweden\(^4\). Their place of birth was also questioned, and 39 respondents are born in Jämtland of which 17 are born in Östersund\(^5\); 14 respondents are born in other parts of Sweden\(^6\) and two respondents are born outside Sweden\(^7\).

(b) **Education / profession:** fourteen respondents indicated their education (high school or university), and ten of them indicated the area of study, namely economy and tourism, economy and law, ethnology, sociology / environmental sciences, biology, wood craft and science in Engineering (three respondents). Four respondents indicated that they are retiring, and the 40 other respondents indicated a profession\(^8\).

(c) **Buying habits:** twelve of the 55 respondents did not know the producer they bought from before that day, and the 43 others indicated that they have known the company for a long time, that they have bought from this company before, that they see the products in the shops or on the markers, or that family members use to buy from the company. Therefore for 15 respondents it was the first time they bought from the producer and two respondents specified that it was the second time they bought from the producer. 27 respondents stated that they buy from the producer a few times per year (varying from rarely to three or four times per year) of which five of them specified that they buy from the producer at markets. Finally, nine consumers stated that they buy products from the

<table>
<thead>
<tr>
<th>Age</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>21-35</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>36-45</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>46-55</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>56-65</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>66-75</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>75+</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>

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\(^3\) The 17 other respondents living in Jämtland live in Frösön, Orrviken, Järpen, Kälarna, Åsarna, Brunflo, Nälven, Gällö and Strömsund.

\(^4\) Stockholm County, Värmland County, Kronoberg County and Västerbotten County.

\(^5\) The 22 other respondents are born in Rödön, Orrviken, Strömsund, Hackås, Järpen, Brunflo, Värmon, Nälven, Duved, Frösön, Åsarna, Föllinge, Skucku, Fyräs, Gällö and Friksände.

\(^6\) Västernorrland County, Värmland County, Västmanland County, Västerbotten County, Örebro County, Västergötland County, Gävleborg County, Södermanland County, Stockholm County, Göteborg County.

\(^7\) Norway and Netherlands

\(^8\) Seller, investigative officer in an agency, forester, dentist, railroad engineer, computer engineer, teacher, economist, social worker, social scientist, occupational therapist, nurse / craftsmen, preschool teacher, white-collar worker, sailor, educator teacher / music teacher, chef, pharmacist, entrepreneur, preschool teacher, administrator, nurse, journalist, plumber, musician / bar manager, forestry worker, teacher, service technician, assistant nurse, eco-environmental engineer, seller, PR consultant, carpenter, librarian, medical secretary, clerk, sawmill worker, substitute, mechanical engineer.
company a few times per month and two consumers specified that they buy products for special occasions. Zero consumers are used to buy products a few times per week.

(d) *Have been to a summer farm / seen grazing animals*: four respondents had not been to a summer farm and the 51 respondents mentioned which summer farm or where they had been (mainly in Jämtland, but also in Värmland, Dalarna, Härjedalen and in Norway). Of these 51 respondents, seven specified that they had been at a summer farm during childhood or that family members had grown up on a summer farm.

The second questionnaire concerns artisan food producers and data were collected on three different occasions. Indeed one producer (producer 2) was questioned during Gregorie Market in Östersund in Mars 2017 – and for such purpose this producer was contacted one week before for her/his authorisation to question both her / him and her / his customers -, and another producer (producer 1) – who also was selling at Gregorie Market – was contacted via mail; the reason why producer 1 was not questioned during the market is that she/he was not present in person but instead sold her/his product through the help of a seller. The other producers were all questioned during one of the project’s workshop that took place in Östersund in April 2017. One extra producer – who was also present at the Gregorie Market through a seller – was contacted afterwards via mail but did not answer my mail. Therefore this present study has questioned a total of eleven producers, and the reader can find the presentation of the eleven producers in Table 2 regarding their production form, where they come from, what kind and how many animals they have, what they produce and how/where they sell their products.

The aim of questioning producers is to investigate if they may relate their own production to the maintenance of pastures, and thus in turn to biological heritage. Therefore the questionnaire consists of a dozen of questions, and on the contrary to the questionnaire for the consumers, this questionnaire mainly consists of open-ended questions because the purpose was *not* to impose modes of answer to producers, but on the contrary to give them the opportunity to answer freely; at the same time open-ended questions give the possibility for a larger coding (de Singly 2006:67). The questionnaire starts thus with some general questions where the producers describe their activity, what they produce (question a1) and what is important for them when they produce (question a2). Then it is asked if their production is based on the use of pastures (question b1) and how important it is for them that their animals graze in pastures (question b2). The following questions deal with their sale and marketing strategies as well as their sale arguments, and what they think their customers want (questions c1, c2, c3, c4). After that, the producers are asked to define ‘natural and cultural values’, and
<table>
<thead>
<tr>
<th>N°</th>
<th>Form</th>
<th>Origin</th>
<th>Financial support</th>
<th>Animals</th>
<th>Products</th>
<th>Sale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dairy farm</td>
<td>Jämtland</td>
<td>Yes</td>
<td>approx. 190 goats, 70 kids, 70 cows, 70 calves</td>
<td>Cow &amp; goat cheese</td>
<td>Market, farm shop, resale, own sale</td>
</tr>
<tr>
<td>2</td>
<td>Dairy farm</td>
<td>Jämtland</td>
<td>Yes</td>
<td>10 sheep, 2 cows</td>
<td>Goat cheese, yoghurt, butter, meat</td>
<td>Market, farm shop, wholesaler, restaurant, delivery to slaughter</td>
</tr>
<tr>
<td>3</td>
<td>Subsistence farm</td>
<td>Hälsingland</td>
<td>No</td>
<td>2 horses, 3 cows, 12 sheep, 1 goat</td>
<td>Milk</td>
<td>Neighbours</td>
</tr>
<tr>
<td>4</td>
<td>Summer farm / Shieling</td>
<td>Hälsningland</td>
<td>Yes (indirectly)</td>
<td>(rent) Cows</td>
<td>Fjällko milk, cheese, butter, messmör</td>
<td>Farm shop</td>
</tr>
<tr>
<td>5</td>
<td>Summer farm / Shieling</td>
<td>Dalarna</td>
<td>No</td>
<td>Chickens, (rent) Dalasheep</td>
<td>Vegetables, eggs</td>
<td>Farm shop</td>
</tr>
<tr>
<td>6</td>
<td>Farm</td>
<td>Norway</td>
<td>Yes</td>
<td>approx. 50 cows, 100 goats</td>
<td>Milk, meat</td>
<td>Market, resale</td>
</tr>
<tr>
<td>7</td>
<td>Summer farm / Shieling</td>
<td>Norway</td>
<td>Yes</td>
<td>6 cows, 3 calves, 12 heifers</td>
<td>Yoghurt, salad cheese, rømmegrøt, svele, gomme, cheese</td>
<td>Market, farm shop</td>
</tr>
<tr>
<td>8</td>
<td>Farm</td>
<td>Norway</td>
<td>No</td>
<td>Lamb, bee</td>
<td>Meat, honey</td>
<td>Farm shop</td>
</tr>
<tr>
<td>9</td>
<td>Farm</td>
<td>Norway</td>
<td>No</td>
<td>approx. 70 cows, 30 sheep</td>
<td>Milk, meat</td>
<td>Market, resale</td>
</tr>
<tr>
<td>10</td>
<td>Farm</td>
<td>Norway</td>
<td>Yes</td>
<td>8 cows, calves</td>
<td>(?)</td>
<td>Sell directly to consumers</td>
</tr>
<tr>
<td>11</td>
<td>Farm</td>
<td>Norway</td>
<td>Yes</td>
<td>100 sheep, bee</td>
<td>Meat, honey, vegetables, sheep skin</td>
<td>Resale, internet, delivery to slaughter</td>
</tr>
</tbody>
</table>
more generally biological heritage (question d1), and explain if they use these concepts in order to sell their products or not (question d2). Finally the questionnaire ends with three more general questions relating to how they highlight the “feel good” of their products (question d3), if they think that the preservation of pastures is important for their customers (question d4), and finally if they think that natural and cultural values can be better used in order to increase their profitability (question d5). It took about ten minutes for the producers to answer the questionnaire.

It is also important to mention that the producers who took part in the Workshop in Östersund (producers 3-11) were given the questionnaire after they got an introduction lecture about what biological heritage is, after some group discussion and after that I presented the results from the consumer questionnaire included in this present study. Also six of the producers came from Norway and answered thus in Norwegian, which I was then obliged to translate into English.

4.3.3. **Data limitations**

In other words the data included in the present study are primary sources, that it to say that I collected the data by myself through interviews and surveys for the purpose of this present study. Indeed the reason for doing so is linked to the aim of the study, namely that there is a lack of knowledge about how biological heritage is understood, described and communicated within the frame of production, consumption, sale and purchase of artisan food products. In other words there was no possibility of using secondary sources since no such data seems to have been collected yet, especially in the case of Sweden.

However the collected data included in this study present some limitations, mainly associated to its collection. The first limitation concerns the slight mismatch between the questioned consumers and producers; indeed on the one hand the consumers questioned at the market – who I repeat are *actively* buying artisan food products at a market – bought products from dairy companies who produce cheeses during the whole year but who also use pastures during summers. On the other hand some producers included here have a farm where they produce cheese but also meat (which was not considered in the consumer survey), and some other producers are *fäbodbrukare*, that is to say that they mainly produce their products in the summer farms / shielings during summers only; the origin of the producers is also varied, since they come from three different regions of Sweden and even from Norway. This slight mismatch between consumers and producers is mainly due to the fact that the data included in this study was collected during spring and not during summer and therefore there was no
The possibility to question people buying products directly at shielings since they are only open during summer.

The second limitation concerns the consumer survey. Firstly it was physically difficult to be at five different places at a time in order to question as many consumers as possible, and secondly there can be some biases linked to the fact that I wrote the consumers’ answers myself, that is to say that I wrote what I understood they say; some meaning can have been lost or misunderstood at this moment since Swedish is not my mother tongue. Furthermore the questionnaire consists of closed-ended questioned in order to make it easier and faster for respondents to answer, but it is not negligible that at the same time it limited the respondents’ ability to think of other alternatives.

The third limitation concerns the producer survey. Indeed producers were questioned and not interviewed for the reason that there was no possibility for interviewing them, neither at the market where the circumstances were not adapted, nor at the Workshop where there was a schedule to keep on time with other activities. Therefore a survey was conducted but it mainly led to two consequences, that is to say that (1) it is more difficult to keep an eye on what they answer and if they answer to all the questions, and (2) the answers are brief and not detailed.

Finally the fourth limitation deals obviously with language. Neither Swedish nor English are my mother tongue, although the data collection was performed in Swedish and the writing of this thesis was done in English. Having lived in Sweden for four years and even studied Swedish at university level I nevertheless have a sufficient level in order to translate from one language to the other, but one should not underestimate the risk of loss of nuances in the words I choose when translating. However my intention being to investigate how different actors understand, describe and communicate about biological heritage in general manners (that is to say that I attempt to catch the meanings people attribute to biological heritage) within the context of production and consumption of artisan food products, I have always considered my level of Swedish as sufficient for such purposes. More specifically I worked with and analysed the individuals’ quotes and conceptions in their original language – in order to work on the basis of their original meaning –, and only translated them into English in the very end of the writing process of this thesis.
4.3.4.  **Analysis**

There are different possible models for analysing the data through a phenomenographic approach, but the model applied in this present study was suggested by Dahlgren and Fallsberg (1991 in Dahlgren and Johansson 2015) and consists of seven stages.

The first stage is the fact of **getting to know the material** through reading the written interviews and questionnaires, and at the same time taking notes of important elements. The data analysis starts then with the second stage, which is **condensation**. Condensation stands for the fact of distinguishing the subjects’ most significant and meaningful statements by choosing and cutting out some sections or paragraphs of the interviews and questionnaires. It can be several cut sections or paragraphs, however it is important that all of them are nevertheless representative of the subjects’ thoughts and perceptions of the phenomenon.

Furthermore the third stage is the **comparison**, that is to say the comparison of the different cut sections or paragraphs (it is important to be clear with who said what) and the search for similarities and differences among the material; according to Dahlgren and Fallsberg (1991 in Dahlgren and Johansson 2015) it is important at this stage to “see through more superficial differences in order to discover similarities” (SWE: “se igenom mer ytliga skillnader för att kunna upptäcka likheter”, p.169). Then the fourth stage is the **grouping**, which is the stage where one groups / collects both the differences and the similarities and attempts to relate the cut sections or paragraphs to each other.

After the grouping stage comes the fifth stage of **articulating the categories**, where the similarities within the material are in focus. During this stage the researcher attempts to find the “essence of similarities” (SWE: “kärnan av likheter”, Dahlgren and Johansson 2015:170) in the different categories, and Dahlgren and Johansson (2015) mention the difficulty of setting the limits between the categories, that is to say how big the variations within one category can be without necessarily create a new category (p.170). The sixth stage is **naming the categories**, by which the most significant elements of the material appear. The name of the categories should be short, informative (i.e. it says what it is about) and at the same time it should capture the feeling of the way of perceiving a phenomenon (Dahlgren and Johansson 2015:170).

And finally the seventh stage of this phenomenographic model is the **contrasting** stage. During this stage the cut sections are all examined in order to see if they can belong with and fit in more than just one category, the final purpose being to create exclusive and exhaustive categories (Dahlgren and Johansson 2015:170). In the end it can thus happen than the number of categories decreases.
To conclude, these seven stages (together forming the phenomenographic design) reflect and embody the organisation and processing of the set of conceptions – in other words the processing of the outcome space – whose aim is to bring similarities and differences in individuals’ experience out.

### 4.4. Considerations on research design: reliability and validity

When conducting a research it is essential to discuss its reliability and validity. On the one hand reliability can be defined as reproducibility, that is to say that a research is reliable if its findings are reproducible at other times and by other researcher (Brinkmann and Kvale 2016:281), by using the same method. On the other hand validity can be defined as accuracy and appropriateness, that is to say that a research is valid if the chosen method really allows the researcher to measure what she / he intends to measure and in turn to answer her / his research questions (Brinkmann and Kvale 2016:282); we also talk about external validity for referring to generalisation, that is to say the degree to which it is possible to generalise a study’s results and apply them to other contexts.

Firstly this present study attempts to investigate how biological heritage is understood, described and communicated within the context of production, consumption, sales and purchases of artisan food products, and it takes a phenomenographic approach that aims at looking at people’s learning process of the concept of biological heritage. Therefore the three research questions seem appropriate to explore the aim of the study, with the first question being similar to the aim, the second question focusing more on consumers and the third question investigating the creation of an economic value. Also the data collection is appropriate for the aim of study, since it directly consults and incorporates individuals in the study through semi-structured interviews as well as surveys.

Secondly external validity implies that the method is appropriately chosen in order to generalise the results of this study and apply them to other contexts; it can be difficult to generalise the results of a phenomenographic study taking a constructivist approach since it is thought that each individual constructs his own subjective idea about the world and the phenomena, and individuals’ conceptions – the outcome space – can be boundless. However the purpose of such study is to define and highlight categories on the basis of individuals’ conceptions; there are thus reasons to think that these categories are generalizable and can include conceptions from a larger study.
Thirdly and finally it is more challenging to assess the reliability of such qualitative research, which would require a comparison with other studies; a researcher can never be completely sure that the people taking part in the study really have answered the questions according to their own experience and feelings. However the semi-structured interviews were recorded and transcribed, as well as all the answers of the surveys were written, whose purpose was to enhance reliability and stability of the data (Creswell 2007:209).

4.5. Ethical considerations

During the phase of data collection as well as during the phase of data analysis, any researcher is faced to ethical issues and in the context of qualitative research Lipson (1994 in Creswell 2007:141) groups these issues into different categories, namely ‘informed consent procedures’, ‘deception or covert activities’, ‘confidentiality towards participants [...]’, ‘benefits of research to participants over risks’ and ‘participant requests that go beyond social norms’ (p.141). To reflect about ethics helps researchers to develop an interviewer-interviewee relation based on honesty, respect, justice, benevolence and reciprocity.

This present study relies upon the ethical issue of free and ‘informed consent procedures’. Indeed every individual included in this study has accepted to participate in this study on her / his own free will; in other words I was honest with individuals by informing them that I would use the data for the purpose of a study. The three interviewees at the agencies were contacted via mail, which gave them the possibility of both thinking about if they want to participate or not and thus refusing; at the time of the interview they were asked if the interview could be recorded and they all gave their consent. The consumers at the market were instantly asked if they want to participate to a study that I presented as dealing with ‘artisan food products and nature preservation’; they were deprived from reflecting about if they want to participate or not but they still had the opportunity of refusing, which many did. Also most of the producers were questioned during the workshop of the project “Biological heritage as sustainable value creator” and their participation was voluntary. Additionally every individual was provided with minimal information about the study and their contribution, the purpose of the study was elaborated and explained for the three interviewees while it was elaborated to less extent to the consumers for time reasons.

Furthermore this study also attempts to protect individuals’ anonymity and confidentiality by avoiding giving their name and instead by attributing them a number. It was
my own decision to keep the individuals confidential in this study, since I was interested in the position of individuals (i.e. working at an agency, being a producer, or being a consumer) rather than a specific individual; therefore mentioning their name was thought from the beginning as pointless. However some information about the individuals is still necessary in order for the reader to understand why these individuals were included in the study; it is mainly the case for the three interviewees, where I mention where and what they daily work with. Some information about producers is also given which serves more as a context for understanding their situation. Finally regarding consumers, their information and answers are used more as a group of consumers rather than 55 individual answers.
CHAPTER 5: PHENOMENOGRAPHIC CONCEPTIONS

This section aims at describing the conceptions that will be tested in this phenomenographic study, and therefore it aims at giving some definitions necessary for the reader to understand what the object in focus in this study is, namely biological heritage, pastures as a biological heritage, and artisan food products. Indeed in subsection 5.1. biological heritage is defined according to how it is understood in the project “Biological heritage as sustainable value creator” in which this study takes part; the definition provided here relies on the definition of biological heritage suggested by the Swedish National Heritage Board (Riksantikvarieämbetet, RAÄ). Subsection 5.2. aims at defining pastures as a biological heritage and at explaining the reasons why they are understood as such in this present study. Finally subsection 5.3. aims at linking pastures and the production of artisan food products, which can take place at the summer farms and are a result of a traditional and sustainable use of these pastures in turn preserving biological heritage.

5.1. Defining Biological Heritage

The Swedish National Heritage Board (Riksantikvarieämbetet, RAÄ) – which is the national agency responsible for the preservation of historical sites and monuments – is the institution that has worked the most with the concept of biological heritage (SWE: “biologiskt kulturarv”) so far, and that is why its definition is in focus in this thesis. This definition will then serve as the “normal definition” used in order to contrast the different actors’ views and understandings of the concept of biological heritage.

First of all according to RAÄ, it is wrong to think that biological heritage is equivalent to biological diversity (SWE: “biologisk mångfald”). In fact, biological heritage is only a part of biodiversity – which is defined as the richness of variability among living organisms (Riksantikvarieämbetet and Centrum för biologisk mångfald 2014:3), and RAÄ distinguishes three levels within biodiversity (see Figure 3), namely biological history carrier, biological culture trail and biological heritage (Ljung, Lennartsson and Westin 2015:5). Biological history carrier can be defined as the part of biodiversity that carries the nature’s own story of past relationships or events, such as a fire or a warmer climate, and biological culture trail can be defined as the part of biological history carrier that has been created, formed and influenced by human use, but that for some reasons cannot be preserved by a continuous
human use (Ljung, Lennartsson and Westin 2015:5). A part of this biological culture trail is biological heritage and RAÄ suggests the following definition:

Translation into English, the definition of biological heritage becomes:

Through this definition, RAÄ suggests two components of biological heritage; on the one hand biological heritage is a broad and inclusive concept, and many different elements can be a biological heritage. Indeed the Swedish National Heritage Board suggests four – and more broadly five – levels of biological heritage, that is to say (1) genes, (2) individuals, (3) populations (i.e. species), (4) natural habitats (i.e. ecosystems), as well as (5) the whole cultural landscape (Ljung, Lennartsson and Westin 2015:5; also www.raa.se; b). In turn, each of these levels – from the whole landscape to an apple variety or a landrace for example – can represent a trace of human use and activities over a long period, telling thus how people used to live and how they have used the land. Furthermore biological heritage is not only material – such as a landscape or a species – but it can also be immaterial; for example the name of a place is a biological heritage since it bears the history / story of the place (Riksantikvarieämbetet and Centrum för biologisk mångfald 2014:14), in the same manner as a story told about wolves from generations to generations.

On the other hand RAÄ suggests that the survival of these elements – at any level – is dependent on care and maintenance, that is to say on human care and maintenance. Indeed the Swedish National Heritage Board bases mainly its definition on the fact that many of the endangered species today depend greatly on active care and maintenance and that the small-
scale land use’s biological heritage is about to disappear (Riksantikvarieämbetet and Centrum för biologisk mångfald 2014:6). In turn such species need to be prioritized in the environmental work done for the achievement of the environmental quality goals, and the concept of biological heritage is mentioned and highlighted in some of them, among others the goals 13 for a Varied Agricultural Landscape and the goal 16 for a Rich Diversity of Plant and Animal Life.

Therefore the Swedish National Heritage Board defines biological heritage as the living part of the cultural environment, as a “bridge between nature and culture” (SWE: “som en brygga mellan natur och kultur”; Riksantikvarieämbetet and Centrum för biologisk mångfald 2014:7), where knowledge about both biological and historical / cultural processes is necessary in order to understand how biological heritage is created or broken down. Put differently, one needs to know how a landscape’s biodiversity was created in order to know how to preserve it, and it is thus an association of an element – such as a species – to a place’s history that will help us to understand how best to preserve this element; traditional knowledge is thus an important component of biological heritage.

In other words the concept of biological heritage – as suggested by RÄA – allows us to visualise how the conditions for a landscape’s biodiversity has been created by people through several decades, and in turn how a continuous, traditional and therefore sustainable (www.raa.se; c) use of the land is needed and is necessary in order to preserve this diversity (Riksantikvarieämbetet and Centrum för biologisk mångfald 2014:8). Thus this present study, within the frame of the project “Biological heritage as sustainable value creator”, will use and rely on this definition of biological heritage as suggested by the Swedish National Heritage Board, and constitutes thus a phenomenographic conception to be tested with the empirical material.

5.2. Defining pastures as a biological heritage

Pastures (SWE: “naturbetesmarker”) represent a biological heritage at the level of natural habitat. Pastures are a type of meadow (SWE: “ängsmark”) characterised by a non-transformation of the soil, that is to say that landscapes elements (i.e. stone walls and houses for example) are preserved and that the soil is neither ploughed nor fertilized as opposed to cultivated lands (www.miljomal.se; c). Furthermore the number of such land has dramatically decreased over the years, with approximately 2 million hectares pastures in Sweden in 1850
(Pehrson 1994:3); nowadays the number of hectares in Sweden is unknown but the County Administrative Boards as well as municipalities undertake inventories, and in Jämtland 1400 hectares pastures were listed in the inventory of 2002-2004 (www.lansstyrelsen.se; b). The decrease in number of grazing animals as well as the lack of profitability of using these lands – resulting from agricultural intensification and specialisation – are mentioned as possible causes of the decrease of pastures in Sweden (Världsnaturfonden WWF 2012:6).

It is said that pastures are one of the richest environments in terms of plant and animal diversity (Danielsson and Andersen 2016) and that this diversity has been created and developed over hundreds years of human activities (Pehrson 1998 in Nitsch 2009:7). Indeed these human activities act as care and maintenance and have usually taken the form of animal grazing and / or haymaking, influencing thus the competitiveness of species in these lands. Therefore grazing and haymaking benefit low, poorly competitive species while the absence of human maintenance benefits high-growth, competing species (Lennartsson 2016:8), and in turn these latter species are hold back. Also the maintenance of these lands – in the form of grazing or haymaking – abolishes nutrition, which leaves thus the soil (Lennartsson 2016:11). Therefore no species can be dominant on the others and in turn a large number of species can coexist on equal nutritional conditions (Lennartsson 2016:11).

Therefore the different biological / natural values present in pastures, as well as their cultural-historical (i.e. traces of earlier uses of lands, such as stone walls) and beauty-recreational (i.e. beautiful, varied landscape, source of inspiration) values, depend entirely on a traditional and continuous maintenance. This maintenance can specifically take the forms of an early release of livestock, a late return of the animals to the farm, a high grazing pressure, a continuous grazing with one or two different animal species, and an annual maintenance in the form of trimming and clearing (Pehrson 1994:4). Furthermore any farmers or landowners taking care of such pastures are eligible for financial supports (originating from the State and the European Union) as specified in the national Rural Development Programme (Landsbygdsutvecklingsprogram), which distinguishes different kinds of values and maintenance, namely ‘general values’ and ‘special values’, requiring a general maintenance and special maintenance respectively (Regeringskansliet 2016:326).

Pastures can thus be considered as biological heritage for two reasons; on the one hand a part of the biodiversity of these lands has been created through several hundred years of human activities taking the form of animal grazing and/or haymaking. On the other hand these pastures’ biodiversity – consisting of many different weak competitive species – depends
entirely on a continuous animal grazing, acting as a traditional maintenance method of pastures.

5.3. Fäbod and artisan food products

Furthermore a link can be made between pastures and artisan food. This link takes the form of fäbod – or the equivalent English term “shieling” (i.e. summer farm) – that Larsson (2009) inserts in the concept of “transhumance”. According to Larsson (2009) transhumance means “variation of pastures” (SWE: “ombyte av betesmarker”, p.76), which refers to a form of livestock care where one returns to the same pastures year after year, and it exists especially in mountainous and semi-dry areas where cultivation is difficult (p.77). Additionally Larsson (2009) identifies two different types of transhumance in Europe, namely a Mediterranean type and an Alpine type, the difference being mainly that animals are stabled during winters in the Alpine type (p.78). The Swedish fäbod falls into this last type of transhumance and Larsson (2009) defines fäbod as:

En periodisk bosättning för sommarhalvåret i syfte att utnyttja utmarkens betesresurser och för förädling av mjölk till hållbara produkter. Där fanns byggnader för människor, boskap och mjölkhantering. Fäboden var en specialiserad kvinnlig arbetsplats och den hade ett funktionellt samband med hemgården och åkerbruket och övrigt jordbruk (p.102)

In English, the definition is thus:

A periodic settlement for the summer season with the purpose of taking advantage of pastures’ resources and for the processing of milk into sustainable products. There (are) buildings for people, livestock and
This definition of **fäbod** is a good starting point for this present study, since it is assumed that shielings’ summer grazing is mostly based on pastures (Pehrson 1994:24; Wramner and Nygård 2014:266). **Fäbod** in Sweden reflects a traditional and sustainable use of pastures and at the same time is the place for the production of artisan food using raw materials such as meat and milk.

In addition to only require a low energy input (Ekeland 2009:22) at shielings, it is said that such raw materials resulting from pastures – in the form of milk or meat – are healthier, where the composition of the feed provides wholesome fatty acids (Ekeland 2009:24), and are more tasteful, since the taste of these raw materials are influenced by what the animals eat in the pastures (Rytkönen 2016:9). Pastures give thus a lot to artisan food products, but artisan food production is likely to benefit pastures in exchange, since it contributes – by its low intensity, small size as well as variety (Wramner and Nygård 2014:250) – to a continuous traditional maintenance of pastures and in turn to the preservation of a type of biological heritage as mentioned in the previous subsection.

As already mentioned, this present study takes a phenomenographic approach that consists of two components, namely the conceptions and the outcome space. This section aimed at describing the conceptions to be tested...
within this study, namely the concepts of biological heritage, pastures as a biological heritage and the resulting artisan food products. Table 3 aims at summarizing the conceptions and their components as understood in this present study. As the phenomenographic approach is used in order to investigate people’s learning process about a phenomenon, it is relevant to consider the concept of biological heritage as the learning object in focus in this study. Finally chapter 6 (i.e. empirical findings and analysis) will aim at testing these conceptions with the “reality”, that is to say how the artisan food producers and consumers, as well as the agencies, actually experience them.

<table>
<thead>
<tr>
<th>CONCEPTIONS</th>
<th>COMPONENTS</th>
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<tbody>
<tr>
<td><strong>Biological heritage</strong></td>
<td>Part of diversity; created and influenced by a continuous human use and care</td>
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<tr>
<td></td>
<td>Different levels; from a characteristic to the landscape</td>
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<td></td>
<td>Knowledge about biological and historical / cultural processes</td>
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<tr>
<td><strong>Pastures</strong></td>
<td>Species richness; created and influenced by a continuous grazing and / or haymaking, VS fertilization and ploughing</td>
</tr>
<tr>
<td></td>
<td>Valuable and weak competitive species, VS dominant and fast-growing species</td>
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<tr>
<td><strong>Fäbod and artisan food products</strong></td>
<td>Shielings’ summer grazing based on pastures</td>
</tr>
<tr>
<td></td>
<td>Products (milk and meat) are healthier and more tasteful</td>
</tr>
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<td></td>
<td>Products are the result of a continuous human use and care of pastures</td>
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CHAPTER 6: EMPIRICAL FINDINGS AND ANALYSIS

The gathered material obtained from the three semi-structured interviews, the consumer survey and the producer survey is presented in this section, at the same time as it is analysed following a phenomenographic approach and on the basis of the theoretical framework presented in chapter 3. Indeed a phenomenographic study implies that some conceptions – here biological heritage, pastures as a biological heritage and production of artisan food (see chapter 5) – are tested through the lens of a learning process, suggested in this present study as understanding, description and communication. More specifically the outcomes space – consisting of the set of conceptions originating from the three different groups of actors – will be tested and contrasted against the phenomenographic conceptions. For such purposes the phenomenographic analysis of the empirical material leads to the creation of categories, in turn reflecting the outcome space.

This present study relies upon the idea that agencies interact with producers by providing them financial and practical supports, and that producers and consumers interact with each other in the process of sale and purchase of artisan food products. For such purposes the present chapter is divided into five subsections:

- Subsection 6.1. deals with agencies’ understandings of biological heritage and pastures, and it will be investigated and tested how agencies understand it in accordance to the conceptions presented in chapter 5.
- Subsection 6.2. deals with producers’ understandings of biological heritage contrasted with agencies’ understandings. Additionally it will be investigated if and how producers make a link with their own production.
- Subsection 6.3. deals with the description and communication of both artisan food products and biological heritage operated by the producers addressed to the consumers, that is to say what producers state that they describe and communicate.
- Subsection 6.4. deals with consumers’ understandings of biological heritage, interpreted here as the meaning received from producers, and investigates with what consumers associate biological heritage.
- Subsection 6.5. deals with the creation of economic value and investigates thus consumers’ reasons for buying such food products.
6.1. Agencies as creators and senders of meanings

As land users, artisan food producers get different types of supports originating from the County Administrative Board (interviewee#1), Eldrimmer (interviewee#2) and the Federation of Swedish Farmers (interviewee#3) in the form of financial supports, advices, education, etc. In this study it is assumed that the three agencies construct and transfer meanings of biological heritage and of pastures to artisan food producers through financial, educational and practical supports. Taking these three agencies as a starting point it is possible to distinguish three different meanings of pastures’ values and of biological heritage, reflecting thus three understandings of the concept.

6.1.1. Category 1: Cared habitat and cared species

The first meaning – and from a phenomenographic approach the first outcome space category – can be named ‘cared habitat and cared species’ and is mainly reflected in the discourse of interviewee#1 from the County Administrative Board, who demonstrates an in-depth and technical understanding of the ecosystem’s biological processes that can be comparable with Corbett’s (2006) environmental literacy. Indeed interviewee#1 mentions the necessity of traditional care and maintenance of pastures (i.e. that is to say without ploughing nor fertilizing) in order to prevent their overgrowing, and preserve their values and diversity. Diversity in pastures and the link with grazing animals are also mentioned by interviewee#2 at Eldrimmer. More generally interviewee#3 at the Federation of Swedish Farmers identifies animal grazing as a way of contributing and protecting the climate.

“If the land user has a pasture which is not ploughed, then that promotes the diversity. And without grazing animals and without cutting the land we will have nothing left.” (Interviewee#1)

“But if you fertilize this land you will destroy it instead.” (Interviewee#1)

“Pastures are also often valuable lands, and there is also diversity regarding what grows there. Then it grows perhaps because it is grazed and trampled.” (Interviewee#2)

“We also have considered in our food strategies and our regional policies here that it is ruminant and grazing-based production that we are going to invest in if we want to contribute to the climate.” (Interviewee#3)
Furthermore and according to interviewee#1, such lands have high values if they consist of so called ‘cared species’ (SWE: “hävda arter”). To exemplify, interviewee#1 mainly identifies, points and names vascular plants and small insects, especially a butterfly species called *Lycaena helle* (SWE: violett guldvinge; see Picture 5) and an orchid species called *Gymnadenia nigra* (SWE: brunkulla; see Picture 6); interviewee#1 explains how the butterfly – that only can fly 50-60 meters – lies its eggs on a very particular plant, and how the orchid – that takes about 10 years to grow from a seed to a flower – uses the energy from a mushroom in order to grow. By using the strategy of identification as suggested in Milstein (2011), interviewee#1 puts forward species as unique, considered and valuable, not in order to separate them from their habitats but on the contrary to show how they are connected to and dependent on other elements in their habitats and to show in turn the role and importance of care and maintenance.

> “Everything is so much bigger than you think.” (Interviewee#1)

> “All the other values that you find in nature are like ’stay from away from here human, and everything will be fine’. But here this is not at all the case.” (Interviewee#1)

Furthermore interviewee#1 identifies mainly the orchid *Gymnadenia nigra*, but also some other plant species – as an indicator for the species richness of a pasture. In turn, this species richness is the indicator that a pasture is well cared and maintained, kept away from dominant and fast-growing species.

> “If you find a land with (*Gymnadenia nigra*), there are probably 20 others (i.e. flowers) as well. (*The Gymnadenia nigra*) is at the top of the nutritional pyramid. We cannot find a land with only (*Gymnadenia nigra*). It does not exist.” (Interviewee#1)

> ”Here there is no species which indicates that the pasture will grow again.” (Interviewee#1)

### 6.1.2. Category 2: Cultural and historical know-how

The second meaning – or category – originating from the agencies can be named ’cultural and historical know-how’ and is mainly reflected by interviewee#3 at the Federation of Swedish Farmers; indeed interviewee#3 frames quite generally biological heritage as the *fäbod* culture and the production of food, but also partly and more generally to how we use and take care of lands and the link with tourism.
“I personally think a lot of our shielings and this kind of cultural heritage. We (at LRF) speak a lot about it from the food strategy where we conclude that it is such a thing that makes us unique here in the county and is the connection between food, culture and tourism. Culture in this case is about the cultural heritage, our food traditions and also how to use the land and the meadows.” (Interviewee#3)

Furthermore and similarly interviewee#2 at Eldrimner mentions that the number of pastures – that are according to interviewee#2 not ploughed nor cut – is low nowadays and that the use of this type of land can be symbolized by the fäbod culture. Fäbod culture seems to symbolise a know-how as well as a traditional way of using lands.

“The land that is a pasture and not a cultivated land, it is firstly grazed and not cut in order to take hay and therefore it has not been ploughed. And there are not that many lands like that. And therefore they are not many (i.e. people) who can develop this. This is why I think a lot about the shieling environment.” (Interviewee#3)

6.1.3. Category 3: Animals and their tasteful diet

Thirdly the last meaning or category of biological heritage and values can be named ‘animals and their tasteful diet’ and is mainly reflected by interviewee#2 at Eldrimner. Indeed interviewee#2 frames biological heritage in terms of taste and associates pastures’ values directly to grazing and food products, and the taste such feed gives to products on the contrary of silage.

“If we associate (i.e. values) to pastures, it has a lot to do with fatty acids, i.e. when you speak about milk (production) there is a richer, wider, larger diversity. That is what pastures are all about – diversity. It is the key word. And diversity of components in milk or meat which gives you a richer taste, a taste palette which is much more multifaceted than for another alternative, for example silage breeding. It is different. That is one side (i.e. silage breeding), the other is that you go to the mountains and the animals can graze freely and choose for themselves.” (Interviewee#2)

Additionally interviewee#2 mentions and associates also to animals’ health, stating that animals are doing well by eating such varied feed provided by the nature.

“The animals may feel better by having such a herbaceous or varied grazing environment and they can choose by themselves. [...] It is good for the animals and their health.” (Interviewee#2)

Similarly and more generally interviewee#1 also states that pastures – for example those situated close to forests – are constituted of a soil that is not appropriated for cultivation, and therefore having animals on these lands is positive on different aspects, included for grazing animals and climate. Pastures are thus a resource to use.

“ [...] if the animals are grazing in the forest it is fine. It is indeed very good for the animals, very good for the environment, very good for the diversity and very good for the climate. We get meat from lands that we cannot eat from ourselves.” (Interviewee#1)

These three categories show that there is neither common nor clear understanding of biological heritage and pastures among and across the three interviewees. Interviewee#1 at the County Administrative Board demonstrates a complete, almost technical understanding of
both biological heritage and pastures as a biological heritage, by evocating and highlighting mainly (1) a species richness / diversity influenced by continuous human care and maintenance, which is necessary in order to preserve this diversity, (2) pastures consisting of values, namely identified species such as Gymnadenia nigra and Lycaena helle both indicators for a diversity and a continuous care, and also (3) a link with products originating from the use of such pastures, highlighting the fact that pastures are a resource.

Regarding interviewee#2 at Eldrimner the discourse includes also an understanding of biological heritage as a diversity, influenced by human use in the form of grazing, therefore recognising the role played by animals but without mentioning that human care and maintenance is necessary for the preservation of valuable lands; instead interviewee#2’s discourse frames biological heritage and more specifically pastures’ values in terms of products’ taste and animals’ health, and how the diversity of pastures contributes to both.

And finally when regarding interviewee#3 at LRF the discourse frames biological heritage in terms of fäbod culture and seems to highlight more the knowledge about cultural / historical processes (i.e. about how to produce food and how to use the lands, symbolised by the fäbod culture) rather than biological processes (i.e. a diversity that actually was created and is maintained by a continuous human use and care); interviewee#3 mentions however grazing as a way of contributing to climate.

6.2. Producers as receivers of meanings

In this present study producers are seen as receivers of meanings suggested by the agencies. It is assumed that – by receiving diverse types of supports from agencies – producers are exposed to these meanings, and it is now interesting and relevant to investigate in this subsection what it is they decide to pay attention to and how they interpret these meanings. In other words this subsection investigates what it is that producers highlight when they are asked to define what biological heritage mean to them. Therefore the same categories developed on the basis of the agencies’ understanding in subsection 6.1. are used here as well, namely ‘cared habitat and care species’, ‘cultural and historical know-how’ and ‘animals and their tasteful diet’.

6.2.1. Category 1: Cared habitat and cared species

A group of producers – namely producers 1, 2 and 11 – seem to have the ‘cared habitat and cared species’ frame activated, by paying attention to meanings such as preservation of an
open landscape (i.e. on the contrary of overgrowing), of rare and valuable flowers and/or of endangered species, which are components of these producers’ understanding of biological heritage. Producers 2 and 11 even associate biological heritage directly to grazing, considering it as a (necessary) way to preserve old pastures and their plant species.

“An open landscape that is not damaged by different agricultural machines, a flora that is not extinct because of toxins and competition with cultivated, ‘modern’ crops, healthy water streams […]” (Producer 1)

“We have owned the farm for 5 years but it has been there for a much longer time. There are many rare flowers and herbs, and I think it is very important to continue, that they are still there, to communicate to customers that there is a difference when the animals can go out and eat herbs and flowers instead of being inside and eat silage […]” (Producer 2)

“Preservation of endangered species, grazing of old pastures and in the mountains. Keep the landscape open, preserve species which exist in the grazing farmland.” (Producer 11)

Furthermore producers 3 and 7 can also fall more generally into this category, since producer 3 interprets biological heritage as a whole consisting of people, animals and landscape that influence each other, and producer 7 interprets biological heritage as (traditionally) processed natural values, defined as an untouched nature, putting thus forward the role of people in nature.

“Peoples’ and domestic animals’ influence on the landscape and its influence on animals and the people as a whole.” (Producer 3)

“Natural values are the untouched nature. […] Biological heritage is the natural values that are processed.” (Producer 7)

6.2.2. Category 2: Cultural and historical know-how

Secondly many producers – namely producers 1, 4, 5, 6, 7, 8, 10 – seem to have the ‘cultural and historical know-how’ frame activated, by paying attention to meanings of biological heritage as a culture and a knowledge which takes place through time and is transmitted for generations. The concept of ‘tradition’ may refer to a know-how, that is to say a knowledge about we use to do.

”Culture that is man-made.” (Producer 6)

“Old knowledge that is transmitted from people to people throughout generations.” (Producer 4)

“[…] The cultural values are the cultural heritage and traditions. […]” (Producer 7)

More specifically some specify traditions and knowledge about biology and the natural elements in their definition of biological heritage.

“Tradition and knowledge about nature and biology.” (Producer 8)

“Long tradition based on local resources.” (Producer 10)
And finally for some producers biological heritage is a story, living in the landscape and the natural world around us. Producer 1 even includes the know-how and way of producing her / his products within her / his definition.

“That everything around here carries a history and a story.” (Producer 5)

“[…] A landscape that carries the historical influence of old time use of the land and old buildings. Of course also in the ways we produce our products.” (Producer 1)

6.2.3. **Category 3: Animals and their tasteful diet**

Thirdly no producer seems to have the ‘animals and their tasteful diet’ frame activated when they are asked to define biological heritage; only producer 2 seems to pay attention to the message about the difference between grazing pastures, outside, and eating silage, inside.

“[…] to communicate to customers that there is a difference when the animals can go out and eat herbs and flowers instead of being inside and eat silage [...]” (Producer 2)

To conclude this subsection shows that it is possible to classify producers’ set of conceptions within the three categories formed by agencies’ conceptions; therefore it is relevant to say that to some extent producers understand biological heritage in similar ways to the agencies, with a focus on cared habitat and cared species, cultural and historical know-how, and / or animals and their tasteful diet. Furthermore this subsection may reveal that they are mainly two different ways of receiving meanings of – and thus understanding – the concept of biological heritage. Indeed and on the one hand, when asked to define biological heritage, half of the producers (producers 1, 2, 11, 3 and 7) seem to understand the biological processes (i.e. that some parts of the natural world is influenced by human use) by integrating them in their definition; some producers even evocate the necessity of preserving these parts of nature, through grazing for example (especially producers 2 and 11). On the other hand the other half of the producers mainly evocates the cultural / historical processes of biological heritage, that is to say the knowledge inherited about both how people used to do / produce and the natural world. However for most of producers who find themselves in this category do not seem to understand biological heritage as a part of diversity created and influenced by human use and care.

6.2.4. **Making the link between production, pastures and biological heritage**

In the previous subsection three producers, namely producers 1, 2 and 11, include the conceptions of pastures and / or the products within their definition of biological heritage, that is to say that they appear to make a direct connection between biological heritage and their production based on pastures in their definition. It is thus relevant to see how producers make
this connection and what they decide to put forward. Therefore producers were asked what is important for them when they produce on the one hand, and how important it is for them that their animals graze in pastures on the other hand.

Concerning the question of what is important for them when they produce, four different categories came out of the empirical material. Indeed a group of producers highlight ‘social and economic factors’ as important in their production. Producer 1 mentions that the production is rurality-based and invested, that is to say to economically develop rural areas by giving work opportunities, which is also mentioned by producer 11. In the same idea, time optimisation and profitability without using too many machines are mentioned as important for producer 8.

“The production is based on rural-area investments, where artisanship and the preservation of an old agricultural region in the mountains are important parts. Here there are no conditions for a conventional agriculture, not many social functions work, 90% of the population have gone etc.” (Producer 1)

“[…] contribution to established job opportunities in the rural area […]” (Producer 11)

“Must be able to combine less labour intense, profitability without a lot of machines” (Producer 8)

The second category mentioned by some producers is ‘cultural and historical factors’ as being important in their production. Producer 1 again mentions that artisanship and the preservation of the old farmland is important in her / his production (see previous quote). Similarly producers 5 and 7 mention that the continuation of traditions, of food artisanship, as well as the preservation of old production methods are at the centre of their production.

“I live a fäbod life because I love it and need it and carry the tradition.” (Producer 5)

“Important to preserve the tradition food with cheese curdling, separation, souring and cooking.” (Producer 7)

The third category mentioned by producers is ‘moral factors’, stated as important in the production of some producers. It is mainly animal welfare that is mentioned by producers 3, 4, 9 and 11 as important, and producer 3 specified that it is important that both animals and humans get good food. Producer 11 thinks that contact with the customers is also important.

”Good animal welfare […]” (Producer 4)

“The animals should be fine. The people should be fine. Both of them and us get good food” (Producer 3)

“Good animal welfare, contact with customers […]“ (Producer 11)

Finally the fourth category is ‘product attributes’, that is to say that producing on local resources in a sustainable way and / or producing ecological is important for producers 6, 10 and 11, the latter stating that producing in a natural way is important. A good hygiene and
good raw materials without unnecessary additives is important for producer 4 and producer 7 mentions the production of traditional raw materials with unique qualities.

“[…] Good hygiene and nice raw material. No unnecessary additives” (Producer 4)

“To produce with local resources in a sustainable manner.” (Producer 6)

“Shieling milk as a raw material with unique qualities.” (Producer 7)

“It is important that the production is based on the farm’s products and that it is organic” (Producer 10)

“[…] operate organic and as natural as possible.” (Producer 11)

At present it also is relevant to investigate how important it is for the producers that their animals graze in pastures. Pastures were stated as important for all of them, but they mention and highlight different reasons. Here as well it is possible to identify three different phenomenographic categories, namely three different ways of framing the importance of pastures for their production.

The first category highlighted by some producers is ‘the importance of pastures for the products themselves’, reflecting thus a more instrumentalist frame. It is either (1) because it allows one to continue and preserve the tradition – since natural grazing is considered as belonging to fäbod processing (producers 3 and 4), (2) because it adds quality to the products (producer 7), and / or (3) because it influences the taste of the products (producers 2, 7 and 11), producer 7 specifying the role played by animals’ diet. Also and more generally, producers 7 and 11 consider pastures as a condition for their operation.

“Diversity is preserved, culture, traditions, knowledge.” (Producer 3)

“To offer good products which also have a tradition, pasture grazing belongs to the operation of shieling […]” (Producer 4)

“It is very important. I think that it is a quite big different in the taste, both in the meat and the milk.” (Producer 2)

“A condition for the operation. […] a condition for raw material quality […]. Mountain plants with beneficial fatty acids / carotenes / vitamins that give good shieling products” (Producer 7)

“It influences the taste of the meat, the bees need flowers, the pelts are kept in a better and cleaner shape. Necessary for the economy in sheep farming.” (Producer 11)

The second category is ’the importance of pastures for the nature’, reflecting thus a more intrinsic frame; producers 2 and 3 mentioned open landscape and the important contribution of animals in order that the land does not overgrow, reflecting aesthetic values. Producer 3 even mentions that grazing contributes to the preservation of diversity.

“It is important that people see how beautiful it becomes, for example when (the animals) graze. It is an open landscape, it is living.” (Producer 2)
Finally the third category is ‘the importance of pastures for the grazing animals’. Indeed producers 1 and 4 mention the high nutritional value in such natural diet for animals and producer 5 states that pastures represent the (naturally) available food for the livestock. Similarly producers 6, 7, 8 and 10 consider pastures as a resource to use and take advantage of.

“In our region it is only possible to cultivate hay fodder for the animals. The fodder that grows up in the mountains has a much high nutritional value. The fields quickly overgrow with herbs and other weed… but thanks to the nutritional value it is not bad fodder… on the contrary.” (Producer 1)

“All the animals graze outdoors during summer, first in the fields and then in the mountains” (Producer 6)

”It is the food that we find. It is how life has always been here. I cannot see another form of operation. The sheep are important, they belong to that.” (Producer 5)

“[…] Make use of the cultural landscape / biodiversity. An important additional resource to the farm […]”

(Producer 7)

“For the lambs, 100% of the fodder is from outfield grazing; for the honey it is 100% from wild flowers” (Producer 8)

“Important to take advantage of the resources in the outfields around the farm.” (Producer 10)

To conclude this subsection shows that producers make to some extent links between their production, the use of pastures and biological heritage (or components of biological heritage). Firstly producers’ production and the use of pastures are partly linked to a continuation of traditions and know-how, symbolised by the fàbod culture and the traditional artisanship methods of production, which are included in the phenomenographic conceptions presented in chapter 5 and reflect indirectly a way of taking care of biological heritage.

Additionally producers’ production and the use of pastures are very much linked to animals. Indeed having one’s animals on pastures is seen as a matter of animal welfare, namely that it is good for their health especially regarding what they eat there; pastures are much seen as a resource of food for animals. On the contrary only two producers (2 and 3) openly and directly mention grazing animals as a traditional way of preserving diversity and open landscape, which is important for them; these two producers seem to attribute a more intrinsic value to pastures, in mentioning how grazing – and more indirectly products – contributes to their preservation.

Thirdly producers’ production and pastures are linked to products themselves, that is to say that pastures and what animals eat there contribute to the good taste and quality of the products, reflecting thus a more instrumental value of pastures in mentioning what pastures bring to products.
6.3. Producers as creators and senders of meanings

This subsection aims at investigating how producers state that they describe and communicate about both their products and biological heritage on the basis of their understandings of biological heritage as seen in the previous subsection; description and communication are covered in the same subsection since this study considers them as the two sides of a same coin. Therefore this subsection investigates what and how the producers state that they communicate about their products and biological heritage, in order to identify what is put forward and communicated to artisan food consumers; it is important to mention and remind the reader that this study deals with what producers think and state they communicate, and not what they actually communicate to consumers.

6.3.1. Marketing oneself

The producers use different strategies in order to market themselves towards consumers – that is to say what communication channels are used –, except producers 5, 9 and 10 who state not having any marketing means. On the contrary producers 1, 2, 4, 6, 7, 8 and 11 mention that they use internet, either a website and / or social media (such as Facebook and Instagram); in addition to that producers 1, 4 and 7 also specified that they have brochures, available in tourist offices and / or points of sale, including at the shielings. Furthermore producers 1 and 2 both use ads in newspapers and ads on radio, and producer 1 also specified that she / he has posters in the village as well as on the road leading to the village.

When marketing their products two main strategies are used, some producers using both and some others using only one of them. Most of producers use the green product attribution strategy, that is to say that they attempt to market their products as affecting the environment to a minimal extent; for such purpose they highlight the products themselves in attributing them environmentally friendly characteristics. Similarly to the attributes suggested by Cox (2013:290), the attributes mentioned – and thus that producers associate to their own products – are ‘locally produced’ (producers 2 and 5), ‘small-scale’ (producer 2), ‘short transport’ (producers 7 and 11), ‘real food’ (producers 4 and 7), ‘good food’ (producers 3 and 7), ‘clean’ (producer 7), ‘nature product’ (producer 8) and finally ‘organic’ (producers 10 and 11). Producer 1 also puts forward that her / his products are Eldrimner certified.

Another identified strategy used by producers is the green image strategy, which is quite similar to green product attribution but highlights more a company’s actions towards the environment rather than the product in itself and therefore the green image reflects a
company’s identity as argued by Argenti and Druckenmiller (2004:367) in chapter 3 in this present study; in the present case mainly two green images are put forward, namely regarding the production form and the animal welfare. Two producers highlight the artisanship character of their production (producers 1 and 4) and producer 7 even has a catchphrase “In the magical borderland between nature and culture”. Additionally producer 1 puts forward her / his own environmental policy and her / his rurality-based production. The other producers mainly put forward animal welfare; indeed producers 6 and 8 highlight the fact that their animals are fed with green fodder, and producer 10 highlights the fact that her / his animals graze around the farm. Producer 2 mainly puts forward that her / his animals are doing well and that it is possible to follow the production chain, that is to say from the birth of the animal to the production of products such as milk or meat. Finally producer 11 puts forward the preservation of a local landrace in its original area.

6.3.2. **Telling about biological heritage**

Producers were also asked about how and what they communicate about biological heritage to consumers more specifically. Producer 4 states that she / he does not tell about it because of a lack of knowledge, time and resources and producer 9 did not answer the question.

Concerning the other producers, the communication about biological heritage to consumers is varied and for some it is similar to the arguments they use to market themselves. Some producers state that they communicate about the natural world, more specifically wild flowers (producer 8 – both orally and on price tags) and species diversity (producer 7), about the herbs, berries, lichens, stone walls and other traces in the landscape (producer 5). Producers 2 and 7 specify that they communicate about how the mountain plants are beneficial for the fatty acids in the products, thus contributing to the good taste of the products. Additionally producer 2 mentioned that her / his customers usually say that the cheeses taste like seed, to which she / he answers that the cheeses taste what the animals have eaten in the pastures, which is also explained on her / his website and Facebook; producer 2 also states that biological heritage is important to be told at home, where consumers can come and see the grazing animals, and how the animals contribute to a beautiful open landscape.

Furthermore producers 3 and 8 communicate about what her / his animals eat, namely green fodder, and producers 3 and 11 tell more about the history and the environment of their production, as well as the landrace producer 11 has. Producer 10 tells about the fact that her / his products are ecological, and producer 6 in her / his case tells about the pastures that are not fertilized and that have been used for 100 years. Finally producer 1 tells about her / his
environmental policy (also accessible for consumers on her / his website) and states that consumers have the opportunity to come to the production place and have a look at the production, which she / he tells about how it is produced by hand and how it biologically works when the products are conserved in an old-fashioned way.

To conclude this subsection producers communicate to some extent about biological heritage through the storytelling of four different stories: (1) the diversity and the identified and highlighted traces in nature such as wild flowers, (2) the production form, (3) animal welfare (and in what they eat), and (4) the taste of the products (explained by referring to what animals eat or directly to diversity). The storytelling about biological heritage seems mainly to occur orally – producers discussing with customers directly at the points of sale – and occasionally indirectly in writing – on social media or websites. Biological heritage is therefore described and highlighted to consumers in two ways, namely in the products and in producers’ actions. First in the former the products are used to put forward pastures’ diversity, especially how pastures – and what animals eat there – contribute to the (good) taste of the products; it is thus a more instrumentalist value that is attributed to pastures, in putting forward in what they are good for. Additionally other attributes are given to the products, such as for example locally produced, organic and natural.

Secondly in the latter producers tell about biological heritage in their actions, mainly regarding their animal welfare and their production form. Indeed on the one hand producers put forward the fact that their animals are grazing on old non-fertilized pastures, which serves as a green fodder for animals, and some producers even tell about how grazing animals contribute to an open landscape (producers 1 and 2) and the preservation of landraces (producer 11). On the other hand producers tell also about traditional knowledge, but quite indirectly and especially through their production form, i.e. artisanship, namely they tell about how they produce, how using pastures belongs to and reflects a traditional know-how.

6.4. Consumers as receivers of meanings

The aim of this subsection is to investigate how artisan food consumers understand the concept of biological heritage – on the assumption that they receive meanings from what producers communicate by being to some extent exposed to producers’ communication for example directly at the fäbod (51 respondents had already been at a fäbod and / or seen animals grazing in a pasture) or at points of sales such as market. It is thus a matter of
investigating what consumers decide to pay attention to within the communication about biological heritage.

Indeed in this study it is assumed that meanings and understandings about biological heritage are communicated from agencies to producers, and then from producers to consumers via the sales and purchases of artisan food products. In the previous subsection it was argued that producers – by using the tools of green product attribution and green image – describe and communicate four different stories, namely products’ taste (and also other attributes), animal welfare, production form, and diversity and natural traces. Therefore it is relevant to see how consumers understand biological heritage and if these understandings are similar to how producers understand and communicate about it. In the survey, consumers were asked to say a few words about what biological heritage means to them; ten respondents did not answer the question, stating that it is too complicated. Therefore the data consists of 45 answers – more specifically consumers’ conceptions of biological heritage – and Table 4 gathers the conceptions of the 45 respondents who answered this question.

The conceptions of biological heritage presented in Table 4 mainly show that there is no clear and complete definition of biological heritage among artisan food consumers, who used individual words rather than complete sentences to explain their perception of biological heritage. The absence of a common and complete definition – as well as the use of words rather than sentences – might reflect the complexity of the concept of biological heritage and be an indicator for the difficulty to understand it, but most of the respondents were still able to put words on their thoughts. Indeed and furthermore it is possible to distinguish three different categories of understandings on the basis of the conceptions presented in Table 4, therefore reflecting three different themes and phenomenographic categories to which respondents associate biological heritage with. It is also worth to specify that some respondents mention one, two or three of these themes.

6.4.1. **Category 1: Tradition, history and culture**

The first category associated to biological heritage according to artisan food consumers can be called ‘tradition, history and culture’. Indeed many respondents interpret and associate biological heritage to the traditional knowledge and experience, that is to say that history carries ways of doing that might be helpful for today and next generations, for example for food production or nature conservation. Conceptions such as “do as before”, “look back in history”, “maintain things that work well and that are good”, “take advantage of knowledge” or even “understand and take care of resources like we did before” may fall into this category.
Furthermore some respondents – more specifically four respondents – even did make a link with *fäbod* culture as the symbol and carrier of this traditional knowledge and heritage to be preserved and continued. On this aspect some respondents of the survey seem to perceive the traditional knowledge component of the definition of biological heritage provided by the RAÄ.

**Table 4: Biological heritage for 45 of the respondents**

<table>
<thead>
<tr>
<th>History with cultural value</th>
<th>Old traditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature; homemade</td>
<td>Link between preserve the old culture and a sustainable agriculture</td>
</tr>
<tr>
<td>Natural cycle (SWE: kretslopp); heritage; tradition</td>
<td><em>Fäbod</em> culture; small organic farm</td>
</tr>
<tr>
<td>Artisanship, organic</td>
<td>Take old traditions; food from the village (no transport); use nature; animals graze; keep the countryside running</td>
</tr>
<tr>
<td>Preserve old traditions (incl. in agriculture)</td>
<td>Swedish Mountain cow; <em>fäbod</em> culture; biological, same bacteria in the soil</td>
</tr>
<tr>
<td>Do as before; real</td>
<td>Swedish Mountain cow</td>
</tr>
<tr>
<td>Maintain traditional plants; ensure that they are left; flora and fauna that have been here for a long time</td>
<td>Understand and take care of resources like we did before</td>
</tr>
<tr>
<td>Remember; do as before</td>
<td>Protect the environment, the food culture and the traditions. Protect the fields and the orchids, they are the best fodder for animals</td>
</tr>
<tr>
<td>Cultivation; safe products; not genetically modified</td>
<td>Preserve old traditions and artisanship; small farms</td>
</tr>
<tr>
<td>Take care of what we own</td>
<td>Old culture that we preserve, also in how we produce cheese</td>
</tr>
<tr>
<td>Look back in history; how we take care of animals and nature in order to produce food; take advantage of the traditional</td>
<td>Protect our animals, plants and natural resources</td>
</tr>
<tr>
<td>Maintain things that work well and that are good; environmentally friendly</td>
<td>Maintain our cultures through producing food that has existed for a long time</td>
</tr>
<tr>
<td>Locally produced; healthy</td>
<td>Food culture</td>
</tr>
<tr>
<td>Take advantage of what nature gives</td>
<td>Something we manufacture in a farm</td>
</tr>
<tr>
<td>Animals and traditional food artisanship; old crops; grazing</td>
<td>Old traditions to produce food</td>
</tr>
<tr>
<td><em>Fäbod</em> culture</td>
<td>Locally produced food</td>
</tr>
<tr>
<td>Preserve cultural landscape, cultivation and agriculture; animals</td>
<td>Preserve nature</td>
</tr>
<tr>
<td>Something in nature we want to preserve; <em>fäbod</em> culture</td>
<td>How to take advantage of food artisanship that comes from nature and animals that are more free in their grazing</td>
</tr>
<tr>
<td>Good heritage; the tradition continues</td>
<td>To have animals loose and outside</td>
</tr>
<tr>
<td>Next generation; cultivation; what has been at the same place for a long time</td>
<td>Use of nature; produce</td>
</tr>
<tr>
<td>Old food artisanship that is inherited</td>
<td>Good for the environment and the society</td>
</tr>
<tr>
<td>Do as before; work with raw material without additives</td>
<td>Tradition based on experience and knowledge that makes that we know what we do and we do it well</td>
</tr>
<tr>
<td>Produce like we did before; take advantage of knowledge</td>
<td></td>
</tr>
</tbody>
</table>
6.4.2. **Category 2: Food and food production**

The second theme or category associated to biological heritage according to artisan food consumers can be called ‘food and food production’. Indeed some respondents interpret and associate biological heritage to food, food culture and food production, more specifically the fact, the means and the knowledge to produce food. Generally some respondents associate biological heritage to agriculture and cultivation while some others – more specifically – associate to food artisanship (it is the case for five respondents) and something one produces. In this category respondents assign many attributes to biological heritage, namely ‘locally produced’ (including ‘no transport’), ‘small scale’ (that is to say small farms), ‘organic’, ‘sustainable’, ‘healthy’, ‘safe’, ‘without additives’, ‘good’, ‘environmentally friendly’, ‘not genetically modified’, ‘real’, ‘homemade’, in similar ways as the green product attribution that producers operated on their products.

6.4.3. **Category 3: Nature, resources and animals**

Finally the third theme or category associated to biological heritage according to artisan food consumers can be called ‘nature, resources and animals’. Indeed on the one hand many consumers generally interpret and associate biological heritage to the fact of preserving or protecting nature / landscape, and some more specifically as preserving resources, animals / landraces (such as the Swedish mountain cow, see Picture 7) and traditional plants that have been here for a long time, and make sure that they are left there; however the respondents do not seem to understand that biological heritage is actually a part of diversity, which is created and continuously influenced by human use and care. On the other hand a few respondents associate biological heritage to the fact of using and taking advantage of nature in order to produce food for example. Furthermore the way of taking care of animals – some mention free and outside grazing – falls also in this category, but no respondent seem to understand or consider grazing as a way to preserve the landscape on the basis of these conceptions.

To conclude in the previous subsection producers’ description and communication about their products and biological heritage was investigated; four different stories
could be distinguished, namely regarding products’ taste, animal welfare production form, and diversity and natural traces. Therefore producers’ description and communication about both products and biological heritage seems to match with consumers’ reception of meanings, since artisan food consumers appear to mainly have three activated frames as investigated here. From producers’ communication, consumers seem to decide to pay attention to meanings such as (1) preservation / use of nature, (2) grazing animals and (3) production of food products with specific attributes. Another meaning highlighted by the consumers is the (4) heritage of knowledge and experience for producing food (i.e. artisanship) but also taking care of nature, which was less directly communicated by producers themselves but at the same time is included in the concept of “cultural heritage” (SWE: “kulturarv”).

In other words it seems that a part of the artisan food consumers already make a connection between the concept of biological heritage and artisan food products, being among others locally produced, small-scale and environmentally friendly. Now the next subsection aims at investigating to what extent artisan food consumers make this connection.

6.4.4. Associating artisan food production

The respondents were then asked to associate artisan cheese production with different concepts, which were suggested, i.e. pastures, biodiversity, quality, environmentally friendly, food tradition, endangered species, landrace, natural landscape, rare animal and plant species, living countryside, cultural heritage, cultural landscape, grazing animals, small-scale production and outfield (they could tick several alternatives and suggest others). Figure 4 shows how many times the different concepts were chosen, that is to say how many consumers ticked each concept.

First of all most respondents ticked and associate artisan cheese production with living countryside, that is to say that artisan food production is considered and perceived as a way to develop the local and rural economy; this result was not surprising since every respondent – without exception – consider that it is important that there are companies producing artisan food (question 10 in the survey). Furthermore the production form (i.e. small-scale production), intrinsic attributes (i.e. quality), and food tradition are all associated to some extent to artisan food production by most of respondents, and the environmentally friendly aspect was ticked to less extent.

The aim of this question was to investigate to what and to what extent respondents associate artisan cheese production with the conception of biological heritage as understood in this present study. A particular attention was therefore put on the different concepts included
in the conception of biological heritage / pastures as a biological heritage presented in chapter 5, namely cultural heritage (understood here as the ideas and values that are part of a culture’s history and serve as a common reference framework, www.ne.se; a), grazing animals (as a way of maintenance and production of artisan), pastures, cultural landscape (defined as a landscape more or less strongly transformed by human activity, on the contrary of natural landscape defined as a humanly unaffected landscape), biodiversity, landrace (defined as an animal breed within which mating occurs naturally and who adapted to a particular area, www.ne.se; b), outfield resources (defined as a land at a further distance from the home and which does not consists of fields or meadows, www.ne.se; c), rare species and endangered species.

Therefore Figure 4 shows that firstly many respondents seem to associate artisan cheese production with the more historical and cultural dimension of biological heritage, namely traditional knowledge in the form of both a food tradition and a cultural heritage. Secondly fewer respondents seem to associate artisan cheese production with the context of the production, and what is meant here are the grazing animals, the pastures, the cultural landscape and to less extent the outfield resources, that is to say where the milk actually and directly comes from. Thirdly and to a less extent, even fewer respondents associate artisan cheese production to what it actually contributes to, namely biodiversity, preservation of landraces and finally of rare / endangered species; in fact the five respondents who ticked ‘endangered species’ also ticked all the other alternatives, stating that “everything is
“connected” which might be an indicator – to some extent – for respondents’ awareness and understanding of ecosystems’ processes.

That biodiversity and these other alternatives were less ticked than the historical/cultural dimension of biological heritage and the context of production may reflect what Kollmuss and Agyeman (2012) state about environmental awareness. According to them environmental awareness is indeed faced to some obstacles, such as the non-immediacy and invisibility of problems and the slow change of the environment. It may be easier to make a link between artisan food production, grazing animals and pastures, because one actually sees the animals grazing there, and most of the respondents (51 respondents) had already been at a fåbod or seen animals grazing. However artisan products’ contribution to biodiversity, to the preservation of landraces and of rare / endangered species may not necessarily be visible for those who do not have knowledge about it. Therefore to see the animals grazing in pastures, and see a fåbod symbolising the old traditions and knowledge about how to use these lands, appear not to be enough for the respondents to understand the functional and biological processes in which artisan food production also takes part.

6.5. Creating an economic value

This last subsection aims at investigating the potential of biological heritage for the creation of economic value, on the basis of and combining the previous subsections of this chapter. Therefore it is first necessary to provide a short definition of economic value as understood in this present study. Secondly it will be investigated what producers think that consumers want on the one hand and why consumers buy artisan food products on the other hand. Finally it will be attempted to combine the different data investigated and developed in this present chapter in order to highlight the lessons to be learnt.

6.5.1. Economic value

‘Economic value’ in this present study mainly relies upon the meaning suggested by the project “Biological heritage as sustainable value creator” (www.slu.se). Indeed, within the project, economic value is understood in terms of good economic conditions and better profitability for producers, and therefore it is understood as the creation of higher prices for artisan food products but also the increase in sales of such products. In turn it is thought that good economic conditions for producers are a prerequisite for a continuous care and
maintenance of pastures and their values, and therefore a prerequisite for the preservation of biological heritage.

6.5.2. What consumers want

In order for biological heritage to be a creator of economic value, it is interesting and relevant to investigate what consumers want and why they are buying such artisan food products, and to contrast it with what producers think that consumers want.

When regarding producers, they seem to have a clear idea of what consumers want and three different categories of producers is distinguishable. Indeed and on the one hand a first group of producers mention that consumers are interested in the ‘origin of the products’ (producers 1, 2, 5, 10, 11), that is to say that consumers want to know where the products come from. Buying products at “their” fäbod (producer 5), buying locally produced (producer 2), buying short transported products (producer 11) and buying products from a rural area (producer 1) are all included in this category. On the other hand another group of producers mention ‘products’ attributes’, that is to say that consumers buy for the good taste (producers 10 and also 11) and the quality (producers 4, 6, 8 and 11) of the products, but also their uniqueness (i.e. produced only during summers; producer 4), purity (producer 8) and exclusivity (producer 11), being artisan products (producer 1). Finally two producers think that consumers buy for the ‘fäbod experience’ including both serving and conversation (producer 8), or buy for the openly stated environmental policy (producer 1).

It was also relevant to question interviewee#2 at Eldrimner about what consumers want since interviewee#2 works and helps entrepreneurs with the artisan food production. According to interviewee#2 consumers are willing to live a real taste experience, where the taste is not standardised and instead specific to each producer. Also consumers are looking for a genuine (SWE: “äkta”) food, and according to interviewee#2 artisan food is considered as such since it results from both natural processes and the knowledge of the hand. Finally the local origin and identity of the products is important for consumers according to interviewee#2, that is to say that in buying local consumers know where, how and who has produced the products, which is even more significant for local consumers having a sense of place.

When regarding the consumers themselves (see Figure 5), the results of the consumer survey seem to match with Weatherell et al. (2003), Rytkönen (2016) and Roininen et al. (2005) presented in chapter 2. Indeed the respondents included in the survey seem to mainly prioritise the intrinsic product attributes since 51 respondents state buying for the good taste
of the products and 37 state buying for the quality of the products. However consumers do not only buy for the products’ intrinsic attributes and for some consumers other factors are important as well, such as locally produced (39 respondents), artisanship (24 respondents) and the contribution to rural development (23 respondents); other attributes, such as organic and environmentally friendly, are mentioned to less extent by the respondents (13 and 17 respondents respectively). Also some respondents mention also that they know the producer, that they think the producer is “the best”, that they look at the products’ content, that they are used to buy a very specific product, or that the products seemed different and somehow funny.

![Figure 5: Consumers’ reasons for buying such products](image)

Additionally when asked about what they think of the artisan food product(s) they bought, the respondents think that they have a good taste (54 respondents), are price worthy (38 respondents), unique (22 respondents), exclusive (14 respondents), expensive (13 respondents) and have a nice look (8 respondents); some mention also that the products are trustfully, contain a small amount of antibiotics or that the price is reasonable.

6.5.3. Lessons to be learnt

In this empirical findings and analysis section several things were investigated, and among others it was investigated what is important for producers in their production, how they describe and communicate their own understandings of biological heritage and finally how consumers understand it on the one hand and what motivates them to buy artisan food products on the other hand. It is therefore relevant to ask what creates the value of such products, by learning from the previous subsections.
Indeed in subsection 6.5.1. economic value is presented as the generation of income for producers, in the form of both a higher price of these products and an increase in sales. In both cases it relies upon one and only element, namely consumers’ buying decision and willingness to buy. The consumer survey, whose results seem to coincide with previous research (Weatherrell et al. 2003, Roininen et al. 2005 and Rytkönen 2016), shows that good taste (51 respondents) and locally produced (39 respondents) are the two first reasons for consumers to buy such products, even before the fact that these products are artisan products (24 respondents); at the same time – and as argued in Weatherell et al. (2003) – the price seems to be less important, since 13 respondents think that the products are expensive and 38 respondents think that they are price-worthy. Additionally consumers understand biological heritage in terms of (1) tradition, history and culture, (2) food and food production, and / or (3) nature, resources and animals. Furthermore and as already mentioned earlier in this chapter, all respondent think that it is important that there are companies that produce artisan food and they associate artisan cheese production with living countryside; therefore it may be possible to state that artisan food consumers are sensitive to and care for artisan food producers’ economic situation.

A living countryside, products’ good taste and quality, locally produced all seem to be valuable for most artisan food consumers who took part in the survey, and at the same time as good taste and locally produced are two arguments that most producers state using in their storytelling. Furthermore when consumers were asked about if they think that the producer they bought from markets her- or himself by telling about biological heritage (consumers were provided by a definition of biological heritage), almost the half stated yes and the other half stated no, but in both case some consumers associated biological heritage to the storytelling about the origin of the products and its production form. On the one hand those who answered yes stated (1) that producers tell orally where they come from and how they produce, (2) that the products are small-scale, locally produced, trustfully and not industrial, and / or (3) that they know it through the word-of-mouth. On the other hand those who answered no stated that producers should tell orally where they come from, how they produce, and / or have a brochure and show pictures, for example of grazing animals.

Furthermore, Bérard and Marchenay (2007) and Bonow and Rytkönen (2013a) show that geographic indications, brands and storytelling contribute to the creation and maintenance of a local / regional identity by connecting a product to a place; as mentioned in chapter 2, Bonow and Rytkönen (2013a) argue that consumers assimilate products’ information only if they have a ‘sense of place’, that is to say if consumers feel that they belong to the product’s
place of origin. The place of origin of the artisan food products in focus in this present study is Jämtland, and more specifically the Jämtlandish pastures. Therefore the products should be directly and clearly connected to Jämtlandish pastures, with the purpose of creating and developing in the consumers a sense of place for pastures that is more specific than a sense of place for Jämtland. Indeed a sense of place for pastures would be a basis for individuals’ comprehension of biological heritage, and in turn it would be more likely that they will care about them and will be willing to safeguard them by buying such products.

Additionally interviewee#2 at Eldrimner argues that it is in artisan food’s nature to work with natural processes, for example by using pastures to feed the animals or also by storing cheese in traditional ways. Similarly and more generally, food in Jämtland includes the concepts of both biodiversity and organic according to interviewee#3 at the Federation of Swedish Farmers. Therefore, according to two of the agencies interviewed, concepts can be taken for granted and people can have the feeling for such concepts, in similar ways as when some artisan food consumers state that the artisan food products they bought are trustfully. The challenge to overcome is thus that concepts, such as biological heritage, is felt and assumed rather than understood in a complete and clear manner.

Therefore and since artisan food consumers buy such products for their good taste and because they are locally produced, communicating about products’ identity (i.e. where they come from, how they were produced and by whom) is relevant and has to be effectively connected to pastures, making pastures the place of origin of these products; by highlighting the link between pastures and concepts such as taste and locally produced – at the same time characteristics / attributes of the products –, it is likely that it is beneficial for nature conservation, as Wramner and Nygård (2014) argue.

Furthermore the exemplification – which is stated as important by interviewee#3 at LRF – and identification of valuable and cared natural elements – as did interviewee#1 with the orchid Gymnadenia nigra and the butterfly Lycaena helle for example – may be an interesting strategy for touching people and developing a sense of place for pastures (and not only for Jämtland) by linking artisan products and pastures, and telling how they influence each other in terms of both taste and preservation. Therefore a clear and positive identification of specific natural elements – and in turn the development of a sense of place for pastures – may highlight biological heritage, overcome consumers’ assumptions and in turn create an economic value. A challenge still remains, namely if consumers do care about biological heritage and the preservation of pastures or not.
CHAPTER 7: DISCUSSION

The present study is a phenomenographic study that relies upon the assumption that the link between artisan food production and biological heritage (and in turn the preservation of pastures) is not well understood nor highlighted by the different actors taking part into the process of producing, selling, buying and consuming artisan food products in the rural areas of mid-northern Scandinavia, with a particular focus on the Swedish region of Jämtland. This discussion section aims at reflecting on what the phenomenographic approach and design bring to our investigation and understanding of individuals’ learning process of the phenomenographic conceptions.

Indeed and firstly in chapter 3 the theoretical framework – that is to say the lens through which the empirical material was investigated – was presented, and a model was suggested. Indeed the model suggests that the communication process goes from agencies to producers, and from producers to consumers, relying upon the terms of understanding, description and communication. Several theoretical concepts were brought up, namely the language (identification and framing), marketing (green product attribution, green image and storytelling), perception and environmental knowledge and awareness.

Furthermore in chapter 5 the different phenomenographic conceptions to be tested with the empirical material were presented. The concept of biological heritage was defined on the basis of the definition from the Swedish National Heritage Board; according to this definition biological heritage is (1) a part of diversity – consisting of different levels – that has been created and is positively influenced by a continuous human use (i.e. functional dimension), and (2) which implies knowledge about both biological and historical / cultural processes in order to preserve it (i.e. cultural / historical dimension). Then pastures were defined as a biological heritage, by consisting of valuable species requiring a continuous, traditional care (i.e. grazing or haymaking) in order to prevent dominant species to overgrow. Finally fäbod was presented as the link between the traditional and continuous use of pastures and the production of artisan food products, which were stated as healthier and more tasteful at the same time as they contribute to a continuous use of pastures.

And finally in chapter 6 the empirical material was presented and analysed according to the phenomenographic design and the theoretical framework. In other words, consisting of individuals’ experience of and meanings they attribute to the phenomenographic conceptions, chapter 6 represents the phenomenographic outcome space (see Figure 6, which schematises the phenomenographic outcome space on the basis of individuals’ conceptions, inserted in the
Therefore a phenomenographic design leads to the grouping and the articulation of individuals’ conceptions, in turn leading to the creation of three distinctive categories. Indeed the three agencies understand, describe and therefore frame the phenomenographic conceptions in terms of (1) cared habitat and cared species – where the role of grazing animals for diversity and climate seems to be understood by the three agencies –, (2) cultural and historical know-how – that is to say the knowledge about how to take care of the lands symbolised by the fäbod culture that is mainly brought up by interviewee#2 and #3, and (3) animals and their tasteful diet – pastures being a tasteful animal fodder on the contrary of silage breeding which is brought up by interviewee#2 but also by interviewee#1. It can thus be argued that the first phenomenographic category reflects the functional dimension of biological heritage – that is to say this diversity both created and positively influenced by a continuous human use – while the second phenomenographic category reflects more the cultural / historical dimension of biological heritage, at the same time as the conception of fäbod – symbolising a knowledge and know-how – is inserted within the category. Finally the third phenomenographic category refers mainly to the phenomenographic conception of artisan food products.

Furthermore in this study it is assumed that producers’ conceptions fit in these three categories as well. Indeed every producer included in this study own or rent animals, and these animals are all grazing in pastures. However that does not imply that all the producers know what biological heritage is or understand the biological processes in this ecosystem. Some producers seem to understand the biological and functional dimension of biological
heritage by mentioning the preservation of an open landscape, of rare flowers and of endangered species and landraces, also recognising for some of them the importance of grazing animals in these biological processes. On the contrary, those who do not frame biological heritage in terms of “cared habitat and cared species” are all situated in the second category “cultural and historical know-how”, understanding biological heritage more as the knowledge about how to use of the lands (including the actual knowledge about biological processes) but also how to produce. Furthermore when specifically asked about pastures, the producers frame their importance in two different ways and instrumental or intrinsic values were attributed to pastures; indeed and on the one hand, most producers put forward instrumental – and more anthropocentric – values by highlighting the (1) the use of pastures that contributes to the continuation of traditional food production methods and (2) the pastures’ diversity influencing products’ taste (referring thus to the third phenomenographic category “Animals and their tasteful diet”); on the other hand only a few producers put forward intrinsic – and more ecocentric – values by highlighting (3) the contribution of grazing animals to the preservation of an open landscape and pastures.

According to me, when looking at agencies’ and producers’ conceptions it seems that the functional dimension of biological heritage – and what I mean here is a diversity not only created but also positively influenced by a continuous and traditional use of the lands – is less understood than the cultural dimension of biological heritage – that is to say this knowledge and know-how about how to use lands in order to be able to preserve them – especially when looking at producers. In fact and in particular, only interviewee #1 – as well as producers 2 and 11 – demonstrates such a complete understanding, while interviewees #2 and #3 do not highlight nor put forward the necessity of a continuous, traditional use of lands. Then I wonder: if two agencies out of three do not understand this characteristic of biological heritage, how likely is it that producers will understand it, and then communicate it to consumers? However, it is worth to mention that the purpose here is not to evaluate producers’ actual knowledge and awareness of biological processes – which can be situated to some extent between Corbett’s (2006) “heard of” knowledge and environmental literacy – but it is still possible to argue that many of the producers do not seem to have knowledge about what the term “biological heritage” literally means, many omitting the functional dimension of biological heritage and giving general definitions. Therefore I could argue that this lack of knowledge about the concept of biological heritage originates from agencies’ incomplete meanings, which may be linked to the fact that Eldrimner and the Federation of Swedish
Farmers do not directly work for the preservation of pastures, on the contrary of the County Administrative Board.

Moreover three phenomenographic categories could be articulated when looking at the artisan food consumers, namely (1) tradition, history and culture, (2) food and food production, and (3) nature, resources and animals. In fact these categories are similar to the categories constructed with agencies’ and producers’ conceptions. According to me, the results show that consumers’ understanding of the cultural dimension of biological heritage is mainly reflected by the first category “tradition, history and culture”, which refers to the traditional knowledge and that was generally understood as “do as before” but also as the fäbod culture by some consumers. At the same time, consumers’ understanding of the functional dimension of biological heritage is less complete, since those mentioning the third category “nature, resources and animals” perceive biological heritage either as preserving nature or as using nature; therefore no consumers seem to actually connect these two, that using nature and pastures is necessary in order to preserve it / them. Also the second category “food and food production” shows that (1) consumers can make a link between biological heritage and food production, and (2) they actually give attributes to biological heritage, such as locally produced, small-scale, organic, sustainable, etc. Even though the attribute “healthy” / “without additives” was mentioned by two consumers, no consumers actually mention the phenomenographic conception of artisan food products as tasteful – on the contrary of the phenomenographic category “animals and their tasteful diet” – although 51 consumers stated that they buy artisan products for their good taste.

Additionally (1) products’ taste – resulting indeed from animals’ diet – is one of the stories told by some producers in their communication about biological heritage as explored in subsection 6.3., as well as stories about (2) animal welfare, (3) production form, (4) diversity and natural traces. Also and as seen in subsection 6.3., these stories are told through the products – that is to say through a process similar to green product attribution – and / or through producers’ actions – that is to say through a process similar to green image, and producers mainly communicate to consumers instrumental values (i.e. what the pastures are good for in terms of taste and continuation of traditions for example) rather than more intrinsic values (only few producers seem to communicate how their production contributes to biological heritage). Therefore it could be argued that perception’s stages of exposure and attention in consumers need to be distinguished. Indeed in this study it is assumed that artisan food consumers – in their interest and motivation for buying such products and in turn in their actual buying decision and act – are exposed to meanings of biological heritage sent by
producers; they may also be exposed when they go visiting a fäbod, which the majority of the respondents had already done. However being exposed to such meanings does not actually mean that artisan food consumers are attentive to the whole message, since among other things only a few producers (such as producer 2) actually describe and communicate about biological heritage as created and influenced by a continuous human use – which is already an issue in itself – and no consumer seem to understand this aspect – which is another issue. The extent to which consumers are attentive to communication seems thus unclear and seems also vary among consumers.

In other words the method chosen and adopted in this study – namely a phenomenographic approach and design – contributes to our investigation and understanding of individuals’ learning process of the phenomenographic conceptions since it leads to the creation and articulation of categories on the basis of individuals’ conceptions. Indeed the results show that the outcome space is not very large, since three categories could be highlighted on the basis of individuals’ experience of the phenomenographic conceptions, reflecting the functional dimension of biological heritage, the cultural dimension of biological heritage and the link with artisan food products, which were somehow brought by the three different groups of actors investigated in this study. Therefore I think that in general the actors are on the right track for their learning process of biological heritage, but their understandings are still abstract and uncomplete, especially in combining together the functional and cultural / historical dimensions of biological heritage. Taking into account the reflections presented here, the assumption on which this present study relies on seems thus to be true.

Therefore, one can wonder: is it important that the actors understand and highlight the concept of biological heritage in the context of production, consumption, sales and purchases of artisan food? First of all the concept of biological heritage is included in the national environmental quality goals, among others the goal 13 for a Varied Agricultural Landscape, which stipulates that the biological and cultural values in the agricultural landscape resulting from a long and traditional maintenance have to be preserved or improved. Secondly and equally important, the question has to be linked with the framework and the suggested lens through how I look at my data, namely environmental communication. Indeed in chapter 3 of this present study and on the basis of Cox (2013) and Corbett (2006), it was mainly argued that we create meanings, understandings, beliefs, representations of and attitudes towards the natural world through human communication. The meanings, understandings, etc. that we attribute to the natural world are thus socially constructed, and in this present case biological heritage – defined as a part of diversity that is created and positively influenced by a
continuous human use – is considered as a part of the natural world. Therefore following this reasoning, biological heritage is – as any other part of the natural world – a concept whose meaning and understanding is created through human communication, and I thus would like to argue that yes, it does matter that actors not only understand but also highlight the concept and how they do it, since it may guide the actors’ attitude towards biological heritage.

The present study has investigated the different ways in which different actors understand the concept of biological heritage; it also shows that some actors’ understandings of it are incomplete and it could be argued that these understandings could be improved, especially at the level of the agencies that are situated in the beginning of the communication and that provide diverse supports to producers. Indeed the way(s) agencies understand, describe and communicate about biological heritage might be transmitted to producers, and then from producers to consumers, and it is thus essential that these ways reflect the definition of biological heritage. There are thus three implications; one implication is environmental, that is to say that it is essential that producers (as land users) understand their role in the preservation of biological heritage. Without their operation, and therefore without them using the lands, the agricultural landscape will overgrow, diversity will be seriously threatened and the environmental quality goal 13 will be far from being achieved. I think that producers / land users in general would understand better the significance of their own role if they understand the definition of biological heritage and what it implies. Another implication is more economic, that is to say that if biological heritage and the conservation of diversity and natural elements are important for consumers (and this can be the subject for further research), then producers have everything to gain by putting biological heritage forward in a way that defines biological heritage but also that matches with consumers’ understanding of it. This leads to the third implication, if consumers receive and perceive messages about biological heritage – and if they are concerned by the preservation of biological heritage and more specifically of the preservation of pastures (which can be a subject for further research) – it seems thus more likely that they will buy such artisan food products. In turn, the economic viability of these small-scale, sustainable producers would be enhanced and a continuous, traditional use of pastures would be guaranteed.

To conclude, on the policy level, I therefore would recommend that the words “biological heritage” are literally used in the environmental quality goal 13 for A Varied Agricultural Landscape in order to define these biological and cultural values in the agricultural landscape that result from a long and traditional maintenance and that have to be preserved or improved. Today, the words “biological heritage” are not used in the goal 13 and
I argue that by doing so, it may definitely link biological / cultural values and the concept of biological heritage to agriculture and more specifically to food production, which may be a starting point for an universal understanding of both biological heritage and the contribution of food production to biological heritage. Then I would also recommend that the responsibility for transmitting complete (and correct) meanings of biological heritage belongs to agencies, which are situated at the beginning of the communication chain. Indeed and since the County Administrative Board has been working for the preservation of nature and pastures and both Eldrimner and LRF have been working for sustainable food systems, I think that it is their responsibility to actively communicate that biological heritage is a matter of preservation, a matter of a need of a continuous, traditional human use of natural elements, and in turn a matter of a more sustainable food system.
CHAPTER 8: CONCLUSIONS

This present study is a part of the research done on local foods and had as aim to contribute with knowledge about how biological heritage is understood, described and communicated within the frame of production, consumption, sales and purchases of artisan food resulting from the use of pastures. It relied upon the assumption that the link between artisan food products and biological heritage – and in turn the preservation of pastures – is not well understood nor highlighted by the different actors taking part into the process of production and consumption of artisan food in the rural areas of mid-northern Scandinavia such as the region of Jämtland in Sweden. More specifically three questions were addressed in the introduction chapter, namely (1) how do the actors understand, describe and communicate about biological heritage, (2) do artisan food consumers make the link between artisan food production and biological heritage, and (3) how can the link between artisan food products and biological heritage be used in the creation of economic value.

For such purposes the study took a social constructivist approach and a phenomenographic study was conducted in order to investigate individuals’ experience and learning process of biological heritage. More specifically, the phenomenographic conceptions to be tested against the outcome space (i.e. the results obtained from the individuals) were biological heritage, pastures as a biological heritage and artisan products as a result and contributing to the preservation of pastures. Therefore semi-structured interviews were conducted with three different agencies – namely the County Administrative Board of Jämtland, Sweden’s Resource Centre for Artisan Food and the Federation of Swedish Farmers – and two surveys were conducted with artisan food producers and consumers. Based on an environmental communication theoretical framework, this study suggests a model for investigating actors’ learning process of biological heritage, seen here as understanding, description and communication of the phenomenographic conceptions, from agencies to producers, and from producers to consumers.

Using a method such as the phenomenographic approach and design seems to be beneficial for the comprehension of the subject; such a method contributes to highlight differences as well as similarities within the outcome spaces and in turn to answer the research questions. Indeed the creation of categories shows that agencies and producers understand the conception of biological heritage in three different ways – namely in terms of (1) cared habitat and cared species, (2) historical and cultural know-how and (3) animals and their tasteful diet – and it was argued that the functional dimension of biological heritage –
that is to say a diversity created but also positively influenced by a continuous, traditional human use – was less put forward by both some agencies and some producers, who mainly understood and highlighted the more cultural dimension of biological heritage – that is to say a knowledge about both biological and historical/cultural processes. Additionally biological heritage was described and communicated by producers through their products – by giving them attributes such as for example locally produced, organic, natural, etc. – and their actions – such as for example running an artisan production or having a good animal welfare, most producers mainly putting forward in what the pastures are good for rather than their actual preservation.

Secondly the results show that many consumers could actually make a link between food production and biological heritage, since three categories could distinguished on the basis of consumers’ conceptions, namely (1) tradition, history and culture, (2) food and food production and (3) nature, resources and animals. However consumers seem to make this link only to some extent, since most of the consumers first associate artisan food production to firstly (1) concepts such as living countryside, small-scale production and quality, secondly to (2) the cultural dimension of biological heritage in the form of food tradition and cultural heritage, thirdly to (3) the context of the production and the origin of the raw material in the form of among others pastures and grazing animals, and finally to much less extent to (4) the contribution of the production in the form of among others biodiversity, landraces and rare/endangered species.

Thirdly and finally the results show that – as already pointed out in Weatherell et al. (2003), Roininen et al. (2005) and Rytkönen (2016) – consumers are interested in the good taste of the products, the fact that they are locally produced, and also a living countryside. Therefore the creation of an economic value might be enhanced by clearly and directly linking these concepts (also characteristics of products) to pastures – origin of the products – with the help of a positive identification of cared natural elements, developing in turn a sense of place for pastures. A sense of place is argued to be a basis for people’s willingness to care of and safeguard natural elements.

To conclude, the present study can be the starting point for further research in the field of local foods and the preservation of biological heritage. On the basis of the results obtained here, the next step for research could be to investigate what is actually communicated by producers to consumers. For example one can imagine an observational study of producers interacting with consumers at the market or even directly at the Ŧåbod, investigating therefore what is actually said about biological heritage; similarly the written information about
biological heritage on both producers’ websites and social media could be investigated. More generally further research could investigate if biological heritage – and for example the conservation of pastures and their diversity – is important for consumers. Additionally and finally it would be interesting and relevant to investigate and compare how biological heritage is understood, described and communicated in other countries also having an Alpine shieling culture, such as France and Switzerland, in turn to see if the experience(s) in these countries can bring something new to the Swedish case.
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APPENDIX

Consumer survey

1. Vilket företag handlade du ifrån?

________________________________________________________________________

2. Hur mycket handlade du för?

________________________________________________________________________

3. Känner du till det här företaget sedan tidigare?

☐ Ja  ☐ Nej

Om ja, hur känner du till det?

☐ Vänner och bekanta  ☐ Reklamblad
☐ Turistkontor  ☐ Annat: __________________________
☐ Internet

4. Hur ofta köper du produkter från det här företaget?

☐ Första gången  ☐ Varje vecka
☐ Några gånger per år  ☐ Speciella tillfällen (t.ex. jul, påsk, födelsedag)
☐ Några gånger per månad

5. Varför köper du produkter från det här företaget? (*flera alternativ möjliga*)

☐ Närproducerat  ☐ Bidra till landsbygdsuveckling
☐ Känner producenten  ☐ Kvalitet
☐ Ekologiskt  ☐ God smak
☐ Miljövänligt  ☐ Annat: __________________________
☐ Mathantverk

6. Har du varit på en fäbod eller sett djur som betar i ett naturlandskap tidigare?

☐ Ja. Var? __________________________
7. Känner du till begreppet ”biologiskt kulturarv”?

☐ Ja. Hur? ________________________________

☐ Nej

8. Vad innebär ”biologiskt kulturarv” för dig?

__________________________________________________________________________________________

9. Jag förknippar hantverksmässig ostproduktion med: (flera alternativ möjliga)

☐ Naturbetesmark ☐ Ovanliga djur- och växtarter

☐ Biologisk mångfald ☐ Levande landsbygd

☐ Kvalitet ☐ Kulturarv

☐ Miljövänligt ☐ Kulturlandskap

☐ Mattradition ☐ Betande husdjur

☐ Utrotningshotade arter ☐ Småskalig produktion

☐ Lantraser ☐ Utmarksresurser

☐ Naturlandskap ☐ Annat: ________________________________

10. Anser du att det är viktigt att det finns företag som producerar mathantverk?

☐ Ja ☐ Nej ☐ Vet ej

11. Jag tycker att produkterna är/har: (flera alternativ möjliga)

☐ Goda

☐ Prisvärda

☐ Dyra

☐ Trevligt utseende

☐ Exklusiva

☐ Unika

☐ Annat: ________________________________
12. Anser du att det här företaget marknadsför sig genom att berätta om biologiskt kulturarv? (biologiskt kulturarv anses här som den del av biologisk mångfald som är resultatet av människans brukande, t.ex. genom att ha betande djur på en mark)

☐ Ja  ☐ Nej  ☐ Vet ej

Om ja, på vilket sätt?

________________________________________________________________________________________________________________________________________________________

Om inte, hur borde / skulle företaget kunna förbättra sin kommunikation om biologiskt kulturarv?

________________________________________________________________________________________________________________________________________________________

13. Är du:

☐ Man  ☐ Kvinna  ☐ Övrig

14. Vad har du för postnummer?

________________________________________________________________________________________________________________________________________________________

15. Vad är din födelseort?

________________________________________________________________________________________________________________________________________________________

16. Hur gammal är du?

☐ 0-20  ☐ 21-35  ☐ 36-45  ☐ 46-55  ☐ 56-65  ☐ 66-75  ☐ 75+

17. Vad har du för utbildning och / eller yrke?

________________________________________________________________________________________________________________________________________________________
Producer survey


__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

A2. Hur ser ni på er produktion? Vad är viktigt för er när ni producerar?

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

B1. Är naturbetesmarker en viktig utgångspunkt för er produktion?

☐ Ja ☐ Nej

B2. Hur viktigt är det för er att djuren betar ute på naturbetesmarker? Varför?

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

B3. Får ni miljöersättningar från EU och staten för att sköta marken?

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

C1. Hur säljer ni era produkter? Vilken är er viktigaste försäljningskanal? (ange i procent hur stor andel av försäljningen som sker i varje valt alternativt)

☐ Marknad

☐ Gårdsbutik

☐ Återförsäljning

☐ Internet
C2. Hur och var marknadsför ni er verksamhet?


C3. Vad är de viktigaste argumenten vid marknadsföring av era produkter? Vad är unikt med era produkter? Vilka egenskaper hos produkterna marknadsför ni?


C4. Vad tror ni era kunder vill ha? Vad vill de betala för?


D1. Vad är natur- och kulturvärden (inkl. biologiskt kulturav) enligt er?


D2. Berättar ni om det biologiska kulturavet (dvs natur- och kulturvärden) för era kunder? Är det något ni använder som ett argument för att sälja era produkter?


➔ Om ja, vad är det ni berättar mer specifikt? Och hur?


➔ Omnej, varför inte?
D3. Vad gör ni för att framhäva att era produkter ”känns bra” (för miljön, till exempel)? Hur kan man göra för att kunderna får den här känslan enligt er?

D4. Tror ni att vården av naturbesmarkor, såväl som natur- och kulturvärden, är viktiga för era kunder / konsumenter som köper hantverksmässiga produkter?

D5. Tror ni att natur- och kulturvärden kan användas bättre för att öka er lönsamhet? Hur?
Interview Guides

County Administrative Board

1) Vad är Länsstyrelsens roll i att uppnå miljökvalitetsmålen, och speciellt i vården av naturbetesmarker?
2) Hur uppfattar Länsstyrelsen rollen som brukaren spelar i vården av naturbetesmarker?
3) Hur anser ni att ni stöttar användandet av naturbetesmarker vid produktion av ostar och köttprodukter förutom att stödja ekonomiskt (t.ex. ni organiserar temadagar)? I vilken utsträckning anser ni att det hjälper brukare / producenterna?
4) Vad är Länsstyrelsens egen definition för ”natur- och kulturvärden”? Vad innebär det i relation till naturbetesmarker enligt er?
5) Hur lyfter ni fram brukarens roll i skapande och upprätthållande av natur- och kulturvärdena? Och hur främjar och kommunicerar Länsstyrelsen (om) natur- och kulturvärdena till folk?
6) Hur anser ni att man kan använda natur- och kulturvärden för att sälja produkter enligt er? Hur gör ni för att öka folks medvetande om detta?
7) Hur hjälper ni – och kan ni hjalpa – företagen att kommunicera om detta?
8) Vilka (natur- och kultur) värden är de viktigaste att kommunicera enligt er? Hur kan man göra för att öka deras intresse i sådana produkter enligt er?

Eldrimner

1) Hur hjälper Eldrimner producenterna att vara framgångsrika och sälja sina produkter?
2) Mathantverk och gastronomi är ofta ansedda som bidragande till utvecklingen av landsbygden, men kan det också bidra till att främja naturvården och bevarandet av natur- och kulturvärden enligt er? På vilket sätt?
3) Vilken är er roll i detta? Anser ni att ni stöttar användet av naturbetesmarker vid produktion av hantverksmässiga produkter genom att stödja producenter?
4) Hur skulle ni definiera ”natur- och kulturvärden” (biologiskt kulturarv) som finns i naturbetesmarkerna?
5) Arbetar ni för att hjälpa producenterna att framhålla / marknadsföra de miljövänliga aspekterna av deras produkter (till exempel användet av naturbetesmarkerna)?

6) Anser ni att man kan använda natur- oh kulturvärden och vården av naturbetesmarker som ett argument för att sälja hantverksmässiga produkter?
   a. Om ja, vad gör ni?
   b. Om inte, tror ni att producenterna skulle vara behjälpa av detta?

7) Vilka natur- och kulturvärden skulle sälja mest enligt er?

8) Er målgrupp är hantverksmässiga producenter, men kan det hända att ni kommunikerar direkt till allmänheten / konsumenterna? På vilket sätt? Vad kommunikerar ni?

Federation of Swedish Farmers

1) Vad gör ni konkret för vården av naturbetesmarker och bevarandet av sina natur- och kulturvärden? Hur stöttar ni användandet av naturbetesmarker?

2) Hur definierar ni ”natur- och kulturvärden” (inkl. Biologiskt kulturarv) som finns i naturbetesmarker? Vad är / innebär det för er?

3) Arbetar ni för att hjälpa brukaren / producenterna att framhålla de miljövänliga aspekterna av deras produkter (t.ex. att de använder naturbetesmarker)? Om ja, hur? Vad gör ni konkret?

4) Anser ni att man kan använda natur- och kulturvärden och vården av naturbetesmarker som ett argument för att sälja hantverksmässiga produkter? Tror ni att brukaren / producenterna skulle vara behälpta av detta?

5) Hur lyfter ni fram människans (brukarens) roll i skapande och upprätthållande av natur- och kulturvärden?

6) Vilka är de (natur- och kultur)värdena som är viktigast att kommunicera till folk enligt er?

7) Anser ni att det är nånting som konsumenterna är medvetna om?
   - Om ja: är det känsliga till detta? Och vilka värden är viktigaste för dem?
   - Om nej: hur kan ni bidra till att öka deras medvetande?

8) Hur kan man öka intresset hos konsumenterna för sådanna produkter? Hur jobbar ni för att åstakomma detta?