

**EXPANDING CONCEPTUALIZATIONS OF SUSTAINABILITY THROUGH
ARTIFICATION, SENSORIALITY, AND IDEOLOGY: THE CASE OF THE
OKANAGAN VALLEY WINE INDUSTRY**

by

Camilo Andrés Peña Moreno

B.Sc., Universidad de Los Andes, 2010

M.Sc., Tecnológico de Monterrey, 2013

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The following individuals certify that they have read, and recommend to the College of Graduate Studies for acceptance, a thesis/dissertation entitled:

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OKANAGAN VALLEY WINE INDUSTRY

submitted by Camilo A. Peña Moreno in partial fulfillment of the requirements of the degree of Doctor of Philosophy .

Dr. Annamma Joy – University of British Columbia

Supervisor

Dr. Eric Li – University of British Columbia

Supervisory Committee Member

Dr. Ying Zhu – University of British Columbia

Supervisory Committee Member

Dr. Francisco Peña – University of British Columbia

University Examiner

Dr. Jean-Sébastien Marcoux – HEC Montréal

External Examiner

Additional Committee Members include:

Dr. Arjun Bhardwaj – University of British Columbia

Supervisory Committee Member

Dr. Carlos Teixeira – University of British Columbia

Supervisory Committee Member

Abstract

This dissertation is presented as three interrelated studies that were prepared as standalone articles. Each article focuses on one key subject that emerged from years of fieldwork and analysis: the different existing interpretations of sustainability in the wine industry; the imperative to have sensorially pleasing wines; and the lack of definition for sustainable and natural wines. By exploring these subjects, this dissertation studies the cultural practice of winemaking and wine tasting to examine how different interpretations, values, and practices of wine production and wine tasting are embodied and rationalized through distinct discourses of sustainability. Through participant observations, interviews, and informal conversations in British Columbia's Okanagan wine region, the author begins by examining how the concepts of sustainability and nature are expressed and used by wine producers with different types of winemaking practices (Chapter 2). Through a comparative analysis of these expressions and uses of sustainability and nature, a sustainability continuum is proposed, as basis for a sustainability typology of wine producers. Chapter 3 then moves on to the topic of wine sensoriality and how its socio-cultural construction has a key role in furthering (or obstructing) the development of a sustainability-focused wine industry. For this chapter, the author draws on three distinct research projects, covering a wide spectrum of methodological and epistemological approaches, with both quantitative and qualitative tools, to provide a better understanding of the concept and role of wine expertise and how it manifests in the form of wine sensory assessments. This chapter provides evidence that wines with differing and unusual sensorial characteristics can be appreciated differently depending on the context and background of each taster and that certain sustainable wines (e.g., natural wines) with more sensorial differences than mainstream wines might be less accepted in regions where there is no space for variation from a set standard of

taste and quality. Finally, Chapter 4 presents a new conceptualization of a specific type of sustainable wines - natural wines - as subversive art. With this, by providing an alternative conceptual way to describe an ill-defined winemaking approach, the chapter contributes to the study of social movements by presenting subversive and urban art as a framing element rather than a direct medium for dissent.

Lay Summary

This dissertation provides a better understanding of how sustainability is defined and practiced in the wine industry. It does this by exploring three key subjects that connect sustainability to the specific context of wine. The first topic is the ideological conflict evidenced between different approaches to sustainable winemaking. By understanding and mapping these approaches and conflicts, a more detailed definition of sustainable winemaking is achieved. A second subject refers to the implications of the quality and sensorial needs of a product like wine. Through the exploration of how wine tastings and quality expectations are practiced by experts in different contexts, a more nuanced understanding of the playing field for sustainable wines with unusual sensorial characteristics is presented. A third topic refers to the misunderstanding of certain sustainable winemaking approaches; this dissertation proposes a more conceptual approach to defining these winemaking methods through the lens of art.

Preface

This dissertation includes three main analytical chapters that are expanded and more detailed versions of articles that have been accepted for publication or published in peer-reviewed volumes. Chapter 2 is an expanded version of a book chapter that is currently being edited for submission as part of an academic peer-reviewed book on sustainability; another part of this dissertation chapter will be edited for submission to an academic journal. Chapter 3 consists of parts of three different studies, one published in an academic wine journal and the other two published as book chapters in a peer-reviewed academic book about business case studies in the wine industry. Chapter 4 is an expanded version of a book chapter accepted for publication as part of an academic peer-reviewed book on artification and sustainability. Another version of this dissertation chapter will be edited and submitted to an academic journal. The list of current and future publications that were used and edited for this dissertation are:

- Chapter 2:
 - Book chapter and journal article in process
- Chapter 3:
 - Peña, Camilo, Annamma Joy, and Karine Lawrence (2019), “Rebranding Wine Using Sensory Profiling Data: A Case Study,” in *Case Studies in the Wine Industry*, ed. Cristina Santini and Alessio Cavicchi, Elsevier Ltd, 115–28.
 - Grohmann, Bianca, Camilo Peña, and Annamma Joy (2018), “Wine Quality and Sensory Assessments: Do Distinct Local Groups of Wine Experts Differ?,” *Journal of Wine Research*, 29(4), 278–89.
 - Joy, Annamma, Bianca Grohmann, and Camilo Peña (2019), “Preliminary Thoughts on the Importance of Sensory Profiling for Strategic Decision-Making

in Canadian Wineries,” in *Case Studies in the Wine Industry*, ed. Cristina Santini and Alessio Cavicchi, Elsevier Ltd, 167–79.

- Chapter 4:
 - Peña, Camilo (2022), “Wines and Subversive Art: A Conceptual Definition of Natural Wines,” in *The Future of Luxury Brand Marketing: Artification and Sustainability*, ed. Annamma Joy, De Gruyter, in press.
 - Journal article in process

The data and research presented here is comprised of a diverse series of research projects of which the author was part of. This includes two Mitacs-funded research internships at two different Okanagan wineries and participation at various wine events and wine tastings (see Appendix C for some sample pictures of various fieldwork locations). The studies that make up most of Chapter 3 were possible thanks to funding from a grant from the Social Sciences and Humanities Council of Canada (grant SSHRC # 435-2017-0958) given to Dr. Annamma Joy and Dr. Bianca Grohmann.

The author contributed in different ways to each of the co-authored manuscripts listed above. For the manuscripts used for Chapter 2 and Chapter 4, the author was the main/sole author. For Chapter 3, where most of the co-authored pieces are included, the author was the lead author in one of the manuscripts and collaborated in the other two. These collaborations included input on the research design, data collection and analysis, conceptualization of ideas, and write-up of published manuscripts.

The research undertaken for this dissertation received human ethics approval from UBC Okanagan Behavioural Research Ethics Board under certificate numbers H14-01257 and H17-00707.

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Dedication

Esta tesis doctoral está dedicada a mi esposa Susana, a mi mamá Nidia y a mi papá Jorge.

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Chapter 1: Introduction

1.1 Background and overview of dissertation

Research on sustainability and agricultural products, and specifically wine, has been growing in recent years and has provided an understanding of the wine industry's implementation of environmentally friendly initiatives in response to growing public and consumer interest in the concept of sustainability (Baird, Hall, and Castka 2018; Maicas and Mateo 2020; Merli, Preziosi, and Acampora 2018; Schäufele and Hamm 2017). That being said, while the organic or sustainable wine movement has gained momentum, it has not achieved the success experienced by other organic movements, such as food and produce (Jones and Grandjean 2017, 2018). Thus, this study arises from a broader question: Why has a general movement towards sustainable wines not had the same success as the organic and sustainable food movements, particularly in British Columbia's (BC) wine industry in Canada, which is a New World wine region with less history and background than Old World wine regions? Of particular interest to the author was the opportunity to study the young and growing, but underdeveloped, sustainability market of BC's Okanagan wine region (the specific niche of wines that are marketed and sold because of their environmentally/socially friendly practices), in comparison to more traditional wine regions with long-held and established winemaking traditions. As will be detailed throughout this dissertation, this broader research question can be partially answered by addressing more specific research questions associated with specific concepts that emerged from the analysis of different research projects described in the following chapters.

Throughout this dissertation, the following terms are used: "conventional winemaking," referring to the most commonly used wine growing and making practices that do not have any specific environmental initiatives, with some conventional

producers recently starting to adopt some individual, environmentally conscious initiatives; “sustainable winemaking,” referring to winemaking approaches that implement a series of environmentally conscious initiatives in a systemic way; “alternative winemaking,” which includes winemaking approaches that fall outside the mainstream (conventional) winemaking paradigm and include sustainable winemaking practices; “organic and biodynamic winemaking,” which are categories that would fall within sustainable and alternative practices, and which refer to a series of systemic, environmentally conscious initiatives implemented in the vineyard(s) – with biodynamic implementing most organic practices and using additional methods and principles; and “natural winemaking,” referring to the approaches that, besides organic and/or biodynamic vineyard practices, also implement a series of cellar practices intended to reduce the number of additives used in winemaking while seeking to minimize the level of human intervention in the making of wines.

As the author engaged with the local wine world, it became clear that certain critical aspects of the wine industry were preventing such a movement to fully develop. Three of those aspects emerged as central to this particular study and will be developed throughout this dissertation in the form of three independent but loosely connected research papers: (1) the lack of a common understanding of what sustainability is in the wine industry – and an explanation of this misunderstanding through the conceptualization of ideological conflicts that are fueled by ideologies that form the basis of a system of ideas and beliefs on what sustainability is and should be; (2) the imperative to produce wines of specific quality and sensorial profiles (which sometimes truncates other initiatives that do not contribute to this sensorial need) – conceptualized and detailed through the concept of sensoriality or how products are assessed through the senses; and (3) the misunderstanding and lack of definition of what alternative wines

are and can be for the wine world – and a possible alternative conceptual definition of such wines via the process of artification, the process through which non-art can become art.

This dissertation follows a three-papers approach in which each paper is presented in a chapter with its corresponding introduction, literature review, data and methods, findings, and conclusion/discussion. Thus, each chapter targets a specific gap in the literature and presents a series of unique contributions to the literature, while maintaining a connection to the other chapters. Additional to these three somewhat independent chapters, the dissertation includes an introductory chapter, which outlines the dissertation, describes its overarching themes, and presents the research context; and a discussion and conclusion chapter, which summarizes the findings of all three papers and connects them to the overarching theme of the dissertation.

1.2 Gaps in the literature and research questions of chapters

Following from Christ and Burritt (2013), this dissertation posits that the wine industry has both environmental issues needing to be addressed and further holistic, environmental research (as opposed to specific physical issues) needing to be implemented. It also suggests that wine culture in each particular country/region is a factor impacting that area's level of sustainable activities (those that seek to have a positive environmental and/or social impact). This holistic view would benefit from considering the way different stakeholders assemble ideological views on nature (Canniford and Shankar 2013) and set them as part of both a productive machinery and a sustainability discourse.

The growing relevance of sustainability in business is reflected in heightened public commitment to sustainable practices on a corporate level (Searcy and Buslovich 2014), as well as in the increasing momentum of environmental sustainability as a

social and marketing discourse (de Burgh-Woodman and King 2013). Sustainability in a business context and in relation to consumption practices has been studied extensively (e.g. Chernev and Blair 2015; Martin and Schouten 2011; Pecoraro and Uusitalo 2014; Pelozo, White, and Shang 2013)) with regard to topics such as local/sustainable consumption and alternative markets (e.g. Thompson and Arsel 2004; Thompson and Coskuner-Balli 2007a) and consumer movements and activism (e.g. Kozinets and Handelman 2004; Kozinets 2002).

With public scrutiny of issues such as corporate recruitment policies, workplace conditions, and environmental practices (The Economist Intelligence Unit 2008), companies have been motivated to undertake social responsibility (CSR) initiatives that enhance both their corporate reputation and consumers' perception of their products/services (Chernev and Blair 2015). These initiatives provide two-fold value in that companies can help alleviate global challenges—illnesses, pollution, natural disasters, poverty—and subsequently improve their brand reputation as a result of positive consumer perception (Hildebrand et al. 2017). While many of the sustainability activities implemented by wineries could be considered CSR initiatives (Stanco and Lerro 2020), this dissertation does not focus on the CSR concept as it is more relevant to big corporations with massive resources and/or a need to rectify past wrongdoing; CSR has received criticism for being a “panacea which will solve the global poverty gap, social exclusion and environmental degradation” and for being “often biased towards specific interests” (Marrewijk 2003, p. 96).

Nonetheless, there is still debate around the concept of sustainability. It is defined in various ways, though most definitions share a basic concept of a system that maintains and renews itself over time (Martin and Schouten 2011). This concept of renewal over time, in the official words of the Brundtland Commission, means

development that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations 1987). This definition of sustainability refers to the resources our generation will leave to future generations (Kotler 2011).

Others have used the term “sustainability” as part of cultural codes used by social movements that seek change and new markets, and which are opposed to industrial, corporatized food production (Weber, Heinze, and DeSoucey 2008). In their article, Weber and colleagues (2008) show how sustainability, understood as “a holistically closed economic, social and ecological system that is stable and self-sufficient for the future” (p. 540) and that evokes nurturing and conservation practices as well as renewable resources, opposes an exploitative way of producing food that depletes natural resources.

Sustainability in a business context and with relation to consumption practices has been studied extensively (e. g., Chernev and Blair 2015; Martin and Schouten 2011; Pecoraro and Uusitalo 2014; Peloza et al. 2013), with associated topics such as local/sustainable consumption and alternative markets (e.g., Thompson and Arsel 2004; Thompson and Coskuner-Balli 2007), and consumer movements and activism (e.g., Kozinets and Handelman 2004; Kozinets 2002). Concepts such as sustainable development (United Nations 1987), the Triple Bottom Line (Elkington 1994, 1997), business ethics (Kilcullen and Kooistra 1999), corporate citizenship (Marsden and Andriof 1998), corporate social responsibility (Commission of the European Communities 2002), and fair trade (World Fair Trade Organization 2020) have been consequences of initiatives that foster a more ethical and transparent way of operating in the business world, though it should be noted that while fair trade was meant to improve

inequitable global trade conditions for commodities among small farmers, it has faced divisions because of its co-opting from large firms, such as Starbucks, (Jaffee 2012).

Overall, there is no one standardized definition of the concept of sustainability, and some even argue that terms like "sustainable" and "sustainable consumption" have been divorced from meaningful actions in the marketplace because the action of consumption itself is left unchallenged; as a result, ethical consumption as proposed by the market does not force any difficult choices or sacrifices (de Burgh-Woodman and King 2013). Nevertheless, the wide array of definitions and meanings has led to debates in which stakeholders take opposing positions, either supporting or criticizing the definitions and their implications (Marrewijk 2003).

Following this need for a clearer definition of sustainability, then, and specifically in the wine world (Flores 2018; Vittersø and Tangeland 2015), this dissertation begins by deconstructing sustainability and then analyzing it from a human/nature perspective (Joy and Peña 2017). This perspective refers to the way humans interact with nature in different contexts (e.g. recreation, production). The ambiguity of a sustainability discourse (de Burgh-Woodman and King 2013) is analyzed from a producer's perspective, complementing previous studies focusing on the consumer perspective (e.g. Luedicke, Thompson, and Giesler 2010) and following the nature of the wine industry as market-driving and largely driven by producers and wine experts (Humphreys and Carpenter 2018). To do this, Chapter 2¹ aims to answer the following research questions:

1. What is the role of producers in the construction of sustainability discourses for hedonic products and their unique particularities?

¹ Part of Chapter 2 will be submitted to be a chapter of an upcoming peer-reviewed book on sustainability in the wine industry

2. How do producers negotiate their interpretations and enactments of what it means to be sustainable, and how can this be reflected in a sustainability continuum for wine producers?
3. What role does nature play in the definitions and contestations of sustainability in the wine industry?
4. How do legitimated markets get contested views of production processes, which can later outline the ideological and mythic resources used by consumers and social movements in advocating alternative/sustainable production models?

Chapter 3 shifts the focus from sustainability to sensoriality and analyzes the most important element that can hinder or promote sustainability (and most other movements) in the wine industry: the sensory imperative, which is the fundamental need to have sensorially pleasing wines of good quality. In this is an acknowledgement that in spite of some common ground in its definition and long-term objectives, sustainability and its associated concepts need to be analysed while keeping in mind the specific contexts in which they are embedded (Marrewijk 2003). Consumers interested in sustainability demand certain characteristics of the products they purchase and the brands to which they are loyal, whether clothing, coffee, chocolate, or other types of food (Thompson & Arsel 2004); they might look, for example, for non-GMO, organic, fair-trade, ethically, and locally sourced products (Joy et al. 2012). The list of agricultural products that feature in consumer moralizing of daily choices, as Giesler and Veresiu (2014) argue, keeps growing. Yet consumers' strict requirements may be suspended for certain products, and wine is one of those (Rahman, Stumpf, and Reynolds 2014).

In the case of wine, its sensorial and quality characteristics are fundamentally important for its success as well as part of its identity as a product (Goode and Harrop 2011; Robinson and Harding 2015). In fact, part of the early distrust of organic wines and lack of success of similar sustainably produced wines was a result of poor quality in certain early iterations of organic and non-sulfite wines (Jones and Grandjean 2018). This has important implications for a young and emerging wine region such as BC's Okanagan Valley, which is still defining and making a name for itself in the broader wine world (Gibson 2018).

Chapter 3² examines how wine sensorial and taste preferences are developed, practiced, and negotiated by wine experts and cultural intermediaries—wine educators, sommeliers, wine critics, and wine writers—and why these preferences matter in the development of sustainable or alternative winemaking approaches. For this, taste is not considered in a strict, classically Bourdieusian sense, where taste hierarchies are organized around existing highbrow and lowbrow tastes (Bourdieu 1984). Instead, it is connected to more recent socio-cultural perspectives that consider taste to be fluid and shifting (Johnston and Baumann 2015; Warde and Gayo-Cal 2009), while acknowledging that taste is connected to distinct contexts and backgrounds. The three research questions that underlie Chapter 3 are as follows:

1. How are wine sensory taste preferences constructed, justified, and rationalized by wine experts?
2. How can these preferences influence the potential development of wines with unusual sensory characteristics? In particular, can this be an obstacle for the further development of sustainable wines?

² Chapter 3 comprises three studies, each currently published in the form of a peer-reviewed book chapter or an academic journal.

3. Are there differences in how distinct groups of wine experts assess wine sensory characteristics and quality? And if so, what are these differences and what is the implication for wines with differing sensorial characteristics (like sustainable or natural wines)?

In Chapter 4³, attention turns to the natural wine movement, which advocates for the sustainability practices described in Chapter 2, and which has been the subject of criticism, in part because of the sensorial imperatives described in Chapter 3. Natural wines are a new and largely undefined type of wine (Black 2013; Goode and Harrop 2011; Smith Maguire 2018a) that promotes a return to simpler and less interventionist wine growing and winemaking approaches (Legeron 2014). Chapter 4 addresses this lack of definition by providing an alternative characterization, based on an emergent conceptualization of natural wines as subversive art. This chapter expands on previous conceptualizations of wines as artworks (e.g., Joy et al. 2021; Tomasi 2012) and contributes to the social movements literature by expanding on previous juxtapositions of art and social movements (Mathieu 2018). The two central questions of Chapter 4 are as follows:

1. How can the general process of artification of wines be expanded to specific types of wines and specific types of art?
2. In what ways can sustainable and alternative wines be characterized as artworks and what are the implications of this characterization for the furthering of sustainable and alternative wine movements?

As mentioned earlier, each of the three analytical chapters draws on distinct sets of literature that are the most relevant for the research questions outlined above. This

³ Part of Chapter 4 has been accepted to be a chapter in an upcoming peer-reviewed book on art and sustainability.

chapter now concludes with an introduction to the research context: the wine industry in British Columbia's Okanagan Valley.

1.3 Wine in British Columbia's Okanagan Valley

[I]t is the wine that leads me on,
the wild wine
that sets the wisest man to sing
at the top of his lungs,
laugh like a fool – it drives the
man to dancing... it even
tempts him to blurt out stories
better never told.

-Homer, *The Odyssey*

The origins of wine are unclear, but archaeologists and historians have traced it back as far as 7,000 years with evidence in the form of jars and other vessels that once held wine (Phillips 2000). Since then, wine has been unique in its cultural relevance to the history of food and drink (Varriano 2010). Its magic has evolved from pre-historic times, passing through the civilizations of ancient Greece and Rome, the Middle Ages, the Renaissance, the seventeenth and eighteenth centuries, all the way to the present. Throughout these timeframes, wine has captured the imagination of those in religious, philosophical, artistic, and poetic labours. Wine narratives have continued moving and changing to the point that no other food or drink has such an aura of significance. The grapevine has an important role in the mystique built around wine, considering “vegetation cults celebrating the earth's fecundity are the oldest and most deeply embedded in human consciousness” (Ibid, p. 8).

Wine has been associated with sacred and secular rituals throughout history. Religion has presented some of the most established beliefs and rationalizations related to wine, as evidenced from Greco-Roman cults of Dionysus and Bacchus all the way to the central Judeo-Christian tradition of representing the blood of Jesus through wine.

While wine was once singularly associated with the divine and sacred, and was considered the drink of kings and nobles, it is now produced around the world and has become for many an essential part of everyday meals. Still, there are differences between the wines used solely for special occasions and those used for everyday consumption. The former, usually retailing at higher price points and produced in smaller quantities. With the growing demand for wine, new questions arise and what was once taken for granted is now scrutinized under the eye of the environmentally conscious consumer.

Having existed for thousands of years with vines widely established in regions of the Old World (Europe and other Mediterranean countries) around the 4th century, wine regions are now spreading to what the wine world refers to as the New World, which became known to Europeans after their global explorations began in the 15th century. Spanish colonizers, in need of wine for religious purposes (wine represents the blood of Christ in the ritual of the Eucharist), are said to be some of the first to start planting vines (for example in Mexico, by 1522) (Robinson and Harding 2015). While British colonizers planted the first vines in the United States in 1619, the Canadian wine industry dates back to the early 19th century; in 1811, a German named Johann Schiller domesticated and planted 20 acres of a winter-hardy varietal called *Vitis Labrusca*, similar to Concord, in a vineyard in Ontario (Ibid.). By the late 1970s, Canadian vines also consisted of cold-tolerant French hybrid varietals like Baco Noir and Maréchal Foch, and it wasn't until the late 1980s that Canadian growers embraced more

traditional *vitis vinifera* varietals. In 1988, the appellation system called the Vintners Quality Alliance (VQA) was introduced in Ontario and was adopted in British Columbia in 1990.

The first reason for choosing to study the Okanagan Valley wine region of British Columbia is the availability of data, as the author is physically located in this region. Furthermore, the author built a network with different relevant stakeholders in the industry, many of which have been participants for this dissertation and have provided invaluable information via interviews, as well as further contact information for other relevant actors (snowballing technique). This network includes winemakers, winery owners, sommeliers, wine connoisseurs, wine academics, wine aficionados, government employees, and consultants working in wine-related projects, among others.

Compared to more established, Old World wine industries, the Okanagan wine industry is part of the New World, which includes the United States, Australia, New Zealand, and other countries that are not part of the Old World group (Europe and other Mediterranean countries). New World wine regions are younger, being established after colonies were established as result of European exploration - while in Old World wine regions vines were widely established by the 4th century (Robinson and Harding 2015). As such, the Okanagan Valley's wine industry has potential to develop a differential aspect for its wines and makes new developments an attractive way to further the industry. Additionally, being a young industry that is still developing its identity (Gibson 2018) offers a better opportunity for exploring the development of new and alternative markets and products than would be the case in more established, Old World wine regions. Despite some marked differences between Old World and New World winemaking and wine growing practices, these differences have been gradually being

reduced because of sharing of ideas and practices between wine-growing countries; for example, Old World wine regions have been adopting more technical innovations while New World wine regions are increasingly exposed to the benefits of traditional techniques and notions of regionality/terroir (or giving geographical location a central role in shaping a wine's characteristics) that are commonplace in the Old World (Robinson and Harding 2015).

The Okanagan Valley in British Columbia is the second largest Canadian wine region and the second in economic relevance, after the Niagara Peninsula in Ontario. With the nearby Similkameen Valley region, Okanagan Valley vineyards account for more than 90% of all the wine produced in British Columbia. Wine production in the region dates back to the 1850s when the Okanagan Mission of Father Pandosy was established and there was a need for sacramental wines. After 30 years of prohibition, the wine industry restarted when Calona Wines, the first commercial winery in British Columbia, was founded in 1932. It was not until the mid-1970s that winemakers began experimenting with plantings of *Vitis Vinifera*, a Eurasian grape species from which approximately 99 percent of the world's wine is produced today. Having been established less than 100 years ago, then, the Okanagan wine industry is quite young compared to other wine regions in the Old World.

Unlike wine regions in France, Italy, or Spain, each wine region in the Okanagan Valley grows various styles of wines. In total, more than 80 varietals can be found across the valley, including Merlot, Cabernet Sauvignon, Chardonnay, Riesling, Ehrenfelser, Pinot Noir, Marechal Foch, Camembert, Tempranillo, Malbec, and Pinotage, among others.

The number of wineries in British Columbia has also grown tremendously, from around 13 in 1984 to now approximately 370, and 929 vineyards with more than 10,260

acres of planted land (Wines of British Columbia n.d.). The quality of wines has seen improvements, as mentioned by Schreiner (2006):

First of course, are the wines, which have improved steadily and rapidly in the last decade. Bradley Cooper, now the winemaker at Township 7's Okanagan, but formerly a journalist, made one of his first Okanagan wine tours in the early 1980s. He wanted to select a mixed case (12 bottles) of wines to take home but found only 10 he liked well enough to buy. Today, he observes, you can fill a case with good wine at almost any single winery. This is my experience as well. Now, even when I'm not researching a book, I travel to the Okanagan and Similkameen several times a year to taste and stock up on those interesting, limited-production wines that seldom make it to local wine stores. (p. 7)

This seems to be reflected in the passion and romance with which winemakers and producers talk about their crafts. Some have left jobs in banking, finance, and other corporate positions in big cities to dedicate their lives to winemaking in the Okanagan Valley. Schreiner (2006) says, of the scenery and overall values in British Columbia:

The scenic and ecological values of British Columbia's wine regions enrich wine touring immeasurably. The self-guided tour at the Burrowing Owl Estate Winery provides at least as much information on the fragile environment as it does about what happens in the winery. The interpretation centre next to the Nk'Mip Cellars winery provides a glimpse into the history of the Osoyoos Indian Band. (...) The Golden Mile Trail on the hills above the Tinhorn Creek winery offers breath-taking views of the south Okanagan. (...) Again and again, you'll come across views throughout wine country that are fit for landscapes, postcards and calendars. An image of the beautiful Blue Mountain Vineyard

south of Okanagan Falls, one of the most photographed in the valley, once served as a computer screen saver. (p. 8)

Another relevant factor for considering the Okanagan Valley wine industry is the fact that many external stakeholders would be crucial for the development of new alternative markets. Intermediaries such as wine critics, wine connoisseurs, restaurants, government and industry associations (e. g., BC Wine Authority, BC Winegrape Council, BC Grape-growers Association, BC Wine Institute), and wine magazines are among the vast number of influencers with a say in consumer-related topics such as what a good wine is, what to drink with particular foods, where to make BC wines available, and how to choose from the plethora of wine options available to the consumer. Some of these intermediaries, such as government and industry associations, also have a central role in developing and implementing policies and budgets for the industry. Many of these stakeholders have a unique status in that they can be considered both internal and external, being both winemakers or wine producers and also representing one of the aforementioned influencers. In an industry as small as the Okanagan Valley wine industry, this takes on even more relevance, since many consumer decisions are guided by local word of mouth, and influencers have a significant effect on public opinion—which is true for the wine industry overall (Humphreys and Carpenter 2018).

These particularities—being a young industry with upcoming changes in policy and practices, having certain overall environmental values, and bringing together people from diverse backgrounds with one common passion—make this industry unique, and ideal for a study of sustainability, nature, and development of alternative markets.

Additionally, interest in sustainability has recently grown in the local Okanagan wine industry. The BC Wine Grape Council has been working on a sustainability

certification program since 2011, and in 2019 it launched a series of standards through the Sustainable Winegrowing BC program (Sustainable Winegrowing Program 2022). More recently, one of the biggest wineries in the region has announced that it will be turning all its vineyards to organic practices with some expecting that the percentage of organic vineyards in the region will move from 5% to 20% in the coming years—compared to 3.6% of global vineyards having this certification (Kelm 2021). With this the number of organic wineries in BC, currently at about 40 certified organic wineries (Wines of British Columbia n.d.), will most likely also increase in the coming years.

In Canada, British Columbia has more wineries than any other province. In 2015 there were 275 wineries in BC (now about 370) compared to 180 in Ontario, 17 in Nova Scotia, and 115 in Quebec (Frank Rimerman + Co. LLP 2017). British Columbia's wine industry contributes \$2.8 billion annually to the provincial economy (Wines of British Columbia n.d.). Furthermore, BC has the second highest winery revenue in Canada (\$361 million) after Ontario (\$563 million) (ibid.). The number of wineries and winery revenue from natural wine producers are not easy to pinpoint as this is an undefined type of wine, without the regulated certification and labelling practices that other wines, such as organic wines, have.

Moreover, there is not a well-defined natural wine movement in BC as might be the case in other more established wine markets such as France, where there is a recently developed natural wine denomination – the *Vine Méthode Nature*. In the 1960s, a group of French winemakers (e.g., Joseph Hacquet and Claude Courtois) were implementing what today would be considered natural winemaking practices. This knowledge was then shared with other winemakers and growers who then began to collaborate and form groups to share practices and ideas—a collaboration that eventually started to expand outside of France into countries like Italy and Slovenia.

With the natural wine movement expanding since then, what started with a few wine bars offering natural wines has grown into dozens of bars and restaurants in Paris, New York, and Tokyo (and a growing list of cities) offering natural wine options. And although most natural winemakers are located in France and Italy, more natural wine producers are beginning to follow the natural approach in countries like South Africa, Chile, Australia, and the United States (Legeron 2014).

In British Columbia and in Canada, there have been recent incursions into the natural wine movement. For instance, in 2018 the Raw Wine Fair added its first Canadian fair in Montreal; this is the world's largest natural wine fair which was only present in London, Berlin, Los Angeles, and New York before 2018. Nonetheless, there are still few BC wineries that could be identified as natural wineries. For example, out of 1,142 natural winemakers and growers listed on Raw Wine's website as of March of 2022, only 13 are Canadian and three are from British Columbia. Certainly there are many more wineries that are not associated with the Raw Wine Fair or website, but this provides an example of how few Canadian and BC wineries have followed this movement and community compared to the rest of the wine world.

Despite the lack of a natural wine movement in BC, the Sustainable Winegrowing BC program and recent developments in the local wine industry can be important drivers for the potential development of a sustainability movement in BC's wine industry. Nonetheless, and compared to other wine industries (e.g., France has a newly developed regulating body for natural wines – the Vin Méthode Nature denomination), the natural wine movement is still in very early stages with no clear regulations, standards, or definitions around what constitutes a natural wine.

The Okanagan wine industry was new to the author. As such, the author brought an outsider's perspective while having to become intimately involved with the different

communities and stakeholders around the wine industry, building trust, friendship, and ultimately rapport (LeCompte and Schensul 1999).

The questions posed in interviews and conversations—part of the methodological approach used throughout this dissertation, which will be described in detail in each of the analytic chapters—were informed in part by the literature described in each analytic chapter, but also by the current areas of environmental concern in the wine industry, identified by Christ and Burritt (2013): water (use and quality), solid waste, energy use and greenhouse emissions, chemical use, land use issues, and ecosystem impacts. These concepts also provided analytical guidance that will be further reflected in the proposed sustainability continuum in Chapter 2.

Following the interdisciplinary nature of this doctoral program, mixed methods were used for this dissertation, with a majority of the methods following a qualitative—ethnographic approach. The specific methods used for each part of this dissertation will be described within each chapter.

Overall, this dissertation uses an interdisciplinary research approach while borrowing from the Consumer Culture Theory (CCT) perspective for analysis. The analysis of qualitative data followed an anthropological and sociological approach that is common in CCT Research. At the same time, in the analysis it is acknowledged that participants, while being consumers, were approached in their role as winemakers, producers, and experts. The study of a movement that is yet to fully develop (as is the case of the natural wine movement in British Columbia's wine market) required a research approach that incorporated the understanding of perspectives that were not limited to the consumer side. The perspective of producers and wine experts was crucial in particular, given the market-driving nature of the wine market (Humphreys and Carpenter 2018) and the amount of knowledge and experience needed to understand and

detail the processes of wine making. Furthermore, to study a concept such as sustainability, this dissertation considered a systems thinking research approach that expanded beyond the individual analysis of data and incorporated this analysis within the framings of CCT, social movements, sustainability studies, environmental philosophy, and management studies.

Through the following chapters, and as required for the analysis, more specific contextual data will be provided where needed. Having outlined what this dissertation will present, as well as the general contextual overview, the next chapter will be the first of three analytical pieces, as summarized in Table 1.

Table 1: Outline of analytical chapters and research questions

Chapter	Themes	Gaps	Research questions
Chapter 2	Wine producers' enactment and understanding of sustainability/ Mythic and ideological resources in contesting views of sustainability/ Producers' sustainability continuum/ Producers' role in furthering social movements	<ul style="list-style-type: none"> • Market development from consumption but not production activities (Giesler 2008; Goulding and Saren 2007; Martin and Schouten 2014; Sandikci and Ger 2010; Thompson and Coskuner-Balli 2007a) • Theorization of ideological/mythical contestations focused on the consumer side (Luedicke et al. 2010) • Polarizing and binomial characterizations: mainstream vs oppositional, sustainable vs non-sustainable, artisanal or local vs mass-produced or industrial (de Burgh-Woodman and King 2013) 	<ul style="list-style-type: none"> • What is the role of producers in the construction of sustainability discourses for hedonic products and their unique particularities? • How do producers negotiate their interpretations and enactments of what it means to be sustainable and how can this be reflected in a sustainability continuum for wine producers? • What role does nature play in the definitions and contestations of sustainability in the wine industry? • How do legitimated markets get contested views of production processes, which can later outline the ideological and mythic resources used by consumers and social movements in advocating alternative/sustainable production models?
Chapter 3	Construction and justification of wine sensorial preferences/ Differences in taste preferences based on socio-cultural contexts/ Expert's tasting preferences and their impact on new (sustainable) wines	<ul style="list-style-type: none"> • Focus on technical aspects of sensory procedures (Lesschaeve 2007; Meiselman and Schutz 2003; Tuorila and Monteleone 2009), • Focus on replicability of findings, missing sufficient contextual data, and over relying on experimental procedures (Lahne 2016). 	<ul style="list-style-type: none"> • How are wine sensory taste preferences constructed, justified, and rationalized by wine experts? • How can these preferences influence the potential development of wines with unusual sensory characteristics? In particular, can this be an obstacle for the further development of sustainable wines? • Are there differences in how distinct groups of wine experts assess wine sensory characteristics and quality? And if so, what are these differences and what is the implication for wines with differing sensorial characteristics (e.g., like sustainable or natural wines)?
Chapter 4	Conceptualizing natural wines as subversive art/ Artification of natural wines as subversive art/ Natural wine movement theorized under the lens of subversive art	<ul style="list-style-type: none"> • Definitions of natural wines largely rely on types of methods in vineyard and cellar practices (Alonso González and Parga-Dans 2020; Legeron 2014) • Limited studies on artification of wines (e.g., Joy et al. 2021; Tomasi 2012) • Studies of social movements and arts focused on direct / evident roles of art in mobilizations (Mathieu 2018) 	<ul style="list-style-type: none"> • How can the general process of artification of wines be expanded to specific types of wines and specific types of art? • In what ways can sustainable and alternative wines be characterized as artworks and what are the implications of this characterization for the furthering of sustainable and alternative wine movements?

Chapter 2: Categorizing sustainable wine producers through the use of mythic and ideological resources: Lessons for a hedonic product

Abstract

This chapter focuses on producers' perspectives on and enactment of sustainability in the case of a product with strong hedonic and quality principles and will help elucidate the factors affecting the consolidation and expansion of an alternative market niche within an established mainstream market such as wine. In particular, it will look into how mythic and ideological resources are used by producers that oppose the established and institutionalized forms of production and how those distinct resources provide the outline for a model to characterize sustainability in winemaking. This study builds on and contributes to the research on social movements and new market development by drawing attention to the importance of producers in creating and propagating normative, cultural-cognitive, and regulative discourses around winemaking methods; these discourses are a central element for the contesting of existing practices and the advocating for new alternative markets for non-conforming producers and consumers. This has relevance for an industry that is largely market-driven, where certain producers and wine experts can greatly influence consumer preferences. Further, this study contributes to a better scholarly understanding of the continuum of sustainability in an industry where pleasure and quality are paramount.

2.1 Introduction

The literature investigating sustainability in the wine industry has focused on macro (industry/region) characterizations of producers (Christ and Burritt 2013; Flores 2018; Szolnoki 2013). This chapter shows that sustainability commitments differ within a region, based on their level of alignment between tactical and strategic mandates of sustainability. It will also show how sustainability is a continuum that fluctuates as a

function of an organization's commitments, materialized through specific initiatives and innovations.

Current research in the wine industry has focused on existing frameworks around sustainability (Christ and Burritt 2013; Flores 2018; Hughey, Tait, and O'Connell 2005; Szolnoki 2013). Extant research papers using individual case studies have briefly listed specific initiatives (Gilinsky, Newton, and Vega 2016), connected the use of sustainability with a search for competitive advantage in a commoditized and global market (Flint and Golobic 2009), and most of the time inquire about the relationship between individual wine producers with existing sustainability industry frameworks (Berghoef and Dodds 2013). These works start from an already predefined idea of sustainability, from specific frameworks and concepts that have been developed for years under regional and national initiatives such as in the cases of California and New Zealand (Baird et al. 2018; Gabzdylova, Raffensperger, and Castka 2009; Hall and Baird 2014; Warner 2007). However, these works do not take into consideration how producers construct and use sustainability as a discursive tool that might later be used for market and industry development and for consumer identity work. The influence and perspective of producers in the development of new markets for taste and quality-focused products such as wine has often been ignored (Smith Maguire 2018a). As a result, this research area has under-studied producers' role in the construction of sustainability discourses for hedonic products and their unique particularities.

To address this gap, this chapter focuses on a new and growing wine region: British Columbia's Okanagan Valley in Canada. This unique case will provide an opportunity to study an emerging region as it works to create its own identity (Gibson 2018). And although recent events hint at a broader push towards organic and environmentally conscious winemaking (Gismondi 2017), this chapter shows how there

are unique and complex characterizations of what it means to be environmentally friendly or sustainable, positioning different wineries along a sustainability continuum for wine producers.

For the construction and characterization of a sustainability continuum, this chapter relies on the use of concepts that emerged from the analysis of in-depth interviews and participant observation, which will be detailed in the methodology section. Furthermore, through analysis of the data, a framework of how current market dynamics are negotiated and contested by producers from different segments of the sustainability continuum will be outlined. This framework will help answer broader research questions: What are some of the key factors that drive the market development of an alternative market niche within an established mainstream market? How do legitimated markets get contested views of production processes, which can later outline the ideological and mythic resources used by consumers and social movements in advocating alternative production models? As will be described in the chapter, social movements can provide an alternative to the creation of new markets and existing movements can foster mobilization of new markets. For the specific context of the wine industry, the case of a pre-movement situation will be analyzed here to better understand what needs to happen and how ideological contestations pave the way for further social movement and new market development.

Whereas this chapter focuses on the winemaker as producer (of both the product and the discourse), it must be acknowledged that concepts such as sustainability and quality are socially constructed (Warner 2007) and thus require the consideration of various perspectives; while this chapter focuses on producers' perspectives, certain wine experts or wine cultural intermediaries' (e.g., sommeliers, wine educators, wine writers) opinions will be considered, given the importance of both for a market-driving industry

like the wine industry (Humphreys and Carpenter 2018) and given the relevance of cultural intermediaries in developing and framing how others engage with goods such as wine (Cronin 2004; Maguire and Matthews 2012). This chapter follows Demossier's (2011) argument of the central relevance of the winemaker as mediator in the expression of terroir (and of the other key concepts that will be described further in this document). For this, a multimethod ethnography was used and local wineries and winemakers were studied for a period of over six years, collecting discursive and behavioral data.

The description and analysis of the data used for this chapter is informed by current research on the role of ideology and myth in social movements and in market development. Additionally, the analysis of sustainability will be heavily informed by current theorizations on nature—terroir and environmental philosophy (as central for the characterization of sustainability in the wine industry); this last concept of nature and sustainability will be central for the rationalization of the sustainability continuum and for setting some of the bases for the contestations that will push forward the development of a new alternative market.

2.2 The role of ideology and myth in social movements and market development

Among the different definitions of a social movement, one appropriate for the analysis of market development is that used by Weber, Heinze, and DeSoucey (2008): “loosely organized coalitions with a goal of contesting prominent social and cultural practices through sustained campaigns” (p.531). These collectivities act outside of institutional or organizational channels to challenge (or defend) an existing authority within an organization, society, culture, or world to which they belong (Snow, Soule, and Kriesi 2004). Some of the key characteristics that define a social movement as used

by Weber et al. (2008) and using the conceptualization seen in McAdam, Tarrow, and Tilly (2001) include diffuse boundaries, limited formal organization, articulation of a conflict with practices in the name of a greater good, and a sustained effort to maintain these efforts. With this definition in mind, Weber et al. (2008) provides a conceptualization that excludes other types of social collectives, such as “isolated episodic conflict (e.g., spontaneous walk-outs), mobilization for or against trivial practices (e.g., fashion fads), and interest politics pursued exclusively by formal organizations (e.g., corporate lobbying)” (p.532).

With this social movement conceptualization clearly defined, the next step when thinking about social movements and market development is defining the types of impacts that a social movement can have in a market. Some movements might be radical and seek to change an entire set of social practices into or out of a market-based regime (Weber et al. 2008), such as the alcohol prohibition movement, movements for nationalizing specific industries, or on the other hand, movements for completely privatizing these industries. A second type of movement, the authors argue, seeks a more reformist and transitional change. They are also narrower in scope, focusing on specific market segments of a larger industry, such as the anti-nuclear energy movements (seeking to eliminate a market segment) and alternative energy movements (seeking to add a market segment).

Analyzing the second, more reformist type of social movement, Weber et al. (2008) propose a set of cultural codes as central to the organization of a movement’s meaning system. These codes take the form of binary oppositions, which help position the movement in regards to the mainstream or adversary view. Nonetheless, these codes were identified from the analysis of different actors belonging to a particular social movement studied by the authors (grass-fed meat and dairy). It is not clear if these

codes can be evidenced before the participants enlisted in a particular movement, or if they adhered to the codes when joining the movement. This has particular relevance when considering how social movements are formed with a market development in mind.

For a market to further develop and expand, it needs to get the attention of new consumers (and producers) that are not yet part of it. Weber et al. (2008) focus on the analysis of a social movement that was already well-developed; since their findings show the shared cultural codes already in place, one cannot tell how these people were converted into the movement. Furthermore, there is not a clear explanation of whether such codes were already in place before the grass-fed movement took place. Even though movement participants in Weber et al. (2008) might explain some of the initiatives they had while pioneering grass-fed meat and dairy, these are presented as framed within an already developed grass-fed discourse and movement.

Weber et al. (2008) suggest that social movements can give solutions to challenges seen in creating new market segments. This occurs when movements promote change, not only in institutions of the state but also of the market (Campbell, 2005). Furthermore, Weber et al. (2008) argue that when movements drive projects such as alternative products (as seen fostered in environmental movements), new markets are often infused with moral values that contest institutionalized industry codes.

Accordingly, Weber et al. (2008) propose that producers are motivated by cultural moral codes mobilized by participants of a movement. They analyze how producers create a collective identity that differentiates them from other producers and connects them as part of a movement. Nonetheless, there is a gap in their description of code elaboration, i.e. understanding whether movements and codes were previously constructed with the market in mind: in other words, whether it is not just market actors

who borrow from the movements' cultural codes but the movement also fostering cultural codes based on the needs of a market niche. Weber et al. (2008) show how already-established social movements mobilize cultural codes to develop new markets. But what needs to happen in order for a social movement to develop and further mobilize an alternative sustainable market? This is what Williams (2004, p.96) calls the "internal dimensions of movement culture," which means "the norms, beliefs, symbols, identities, stories and the like that produce solidarity, motivate participants, and maintain collective action."

Although the relevance of cultural codes has been demonstrated, there is no prioritization of different codes within coalitions. What are the most relevant codes needed for a movement to emerge, if any, and what are the reasons for this hierarchy? Codes exist independently of specific movements; they are used by activists for "cultural resonance" between a movement's frames and broader values found in society (Snow and Benford 1988), but it is not clear how and why those codes are fine-tuned and adapted for a specific market.

Finally, Weber et al. (2008) focus their analysis on a unique movement with a set of codes, but acknowledge the need to study attacks on the incumbent movement and counter strategies by opposing groups; by analyzing how oppositional stakeholders compete and contest the adversary group's ideas, this paper will contribute to a better understanding of some of the additional barriers to developing a new alternative niche market and the contestations that happen when negotiating and enacting sustainability through particular views of nature.

Both myth and ideology are central for the development of a social movement's internal cohesion and external validation and can have important repercussions in market development (Kozinets and Handelman 2004; Thompson and Coskuner-Balli

2007a). The internal ideology of a movement is closely related to the aforementioned cultural codes and discourses, and, in conjunction with mythic resources, can be used to create moralistic identity work that provide a basis for contesting an immoral antagonist (Luedicke et al. 2010). In the mythic narrative of a moral protagonist, opposing groups are antagonized as adversaries with different and contending views, seen as morally inferior.

Consumer researchers have studied the role of cultural myths in consumption stories and experiences, where consumer myths “focus on the archetypic characters (e.g., the good mother, the warrior) and story lines (e.g., heroic journeys, struggles between good and evil) that structure consumption texts and the semiotic relationships through which mythic elements form a coherent whole” (Thompson 2004, p.162). Market resources can be used to further differentiate between one group and its antagonizing opponents.

Some examples in which alternative consumption provides ideological and identity tools for differentiation can be seen in Thompson and Coskuner-Balli's (2007a, 2007b) study on how Community-Supported Agriculture (CSA) established itself as a countervailing market response to the co-optation of organic symbols and practices by corporations. Within these specific marketplaces, consumers differentiate themselves from other mainstream consumers, as seen in cases of local coffee shop customers opposed to Starbucks' mainstream consumers (Thompson and Arsel, 2004); downshifting consumers opposed to mainstream consumerist citizens (Nelson et al., 2007); and Burning Man festival participants who criticize mainstream consumers for blindly following media and corporations (Kozinets 2002).

This differentiating ideology is evidenced in Luedicke, Thompson, and Giesler (2010) as moralistic identity work that is structured by the classical morality play myth,

in which a moral hero is called to defend sacrosanct ideals from the actions of immoral enemies; through these moralistic choices, consumers create an oppositional identity framework that confronts other consumer groups (e. g., mainstream, unaware consumers) who are ideologically constructed as deviators from certain normative order (Luedicke et al. 2010).

Luedicke et al. (2010) develop a theoretical analysis of an underlying mythic dimension present in consumer identity work. This mythic structure, the authors argue, allows consumers to enact their ideologies and imbue marketplace resources with identity values. They use the case of Hummer vehicle owners and the rationalizations implemented by them to have a Hummer and to defend their ownership against critics of their consumption choices. In this case, the authors present a product that is imbued with consumers' ideologies and myths, but without going into detail about how the manufacturers fit into the dynamics. In spite of a better analytic clarity provided by the division between mythic form and ideological content, there is no explanation of how those two concepts are or are not influenced by the producers, beyond the product itself. In particular, there is a gap in understanding how the underlying concept behind a product (e.g. a rugged, all-terrain, American-made SUV) can be used as a mythic and ideological resource for moralistic identity work as opposed to a specific product (e.g. the Hummer); what would be the next product to replace the Hummer after its closing of production lines in 2010? In other words, how will the market resources for moralistic identity work shift when the mythic and ideological underpinnings of a moral conflict are not brand-mediated but attached to a broader product category? Would the Hummer owners interviewed by Luedicke et al. (2010) switch to another similar SUV vehicle once they want to buy a new vehicle and find that Hummers are no longer being made?

Market resources and specific advertising efforts are used to mythologize products and brands, and to promote a discourse of power to channel consumers' lifestyles and identity in a particular ideological direction (Thompson 2004). Furthermore, this chapter's data cannot be explained completely without a clearer understanding of how market resources and specific advertising efforts are created and form part of a producer's ideology and mythology. Thus, this chapter expands on Luedicke et al. (2010) and Thompson (2004) by mapping and connecting the ideological and mythic structures that producers (or prosumers – individuals who both consumer and produce, as is the case with many winemakers) imbue their products with, and the role they have in how consumers use market resources at both mythic and ideological levels for moralistic consumer (and producer) identity work. This analysis will contribute to a better understanding of how the contestation between opposing producers' ideological and mythic views impacts new market development.

This inquiry into how producers transmit ideology and myth through their offerings has to do with the aforementioned question of how cultural codes are created, with or without a market in mind (Weber et al. 2008). For this chapter, although previous analyses of myth and consumption, such as the moral protagonist myth (Luedicke et al. 2010) or the romantic and gnostic mythos (Thompson 2004), help explain part of the findings, these theorizations are not enough to completely analyze the data.

2.2.1 Adding hedonic nature to the conceptualization of nature

Both the romantic and gnostic mythos provide key explanations related to the use of nature and technology seen in this chapter. The romantic mythos critiques the emphasis on rationality, science, and technology of the modernist worldview, seeing the return to nature and the practice of a natural way of living (as opposed to a productive

use of technology and reason) as central to personal fulfillment (Thompson 2004); under this mythos, “(...)nature is an organic, dynamic, fecund, and mystical force where disenchanted souls could find spiritual rebirth and sustenance” (p.164). On the other hand, the gnostic mythos has given relevance to the ideas of technology that have shaped part of Western culture; “From a Gnostic perspective, science and technology are divine tools that enable mankind to attain his rightful dominion over nature and to overcome the constraints and limitations posed by embodiment” (Thompson 2004, p.165).

Nonetheless, a key central aspect is missing: the hedonic nature of wine. As will be evidenced in the findings and analysis, the notion of pleasure and taste are central for the development of alternative (and mainstream) markets of wine. This chapter expands the study of mythos (and ideology) by demonstrating how the hedonic myth interacts with the mythos of nature (romantic) and of technology (gnostic) to position and expand an alternative product and market.

2.2.2 Ideology as obstacle to change

Ideological beliefs and the associated conflicts that come with these – such as those that can happen between romantic and gnostic views, in addition to hedonic nature of wine - can influence the development and fluctuations of markets. In their study, Press et al. (2014) examine the extent to which firms’ ideologies impact their strategic decisions. The authors suggest that contending ideologies are a barrier to converting to different production methods (e.g. organic) in spite of economic incentives to do so. With this, Press et al. (2014) contribute to the understanding of why certain strategic orientation decisions are based on ideology rather than on more technical issues.

One of the key ideological obstacles to strategic changes, Press et al. (2014) argue, is the issue of how things are supposed to be done—the normative and regulatory legitimacy issues. These issues get further complicated by the fact that producers, as the authors showed, have a shared system of cultural-cognitive legitimacy, i.e. a shared doxa.

This model is used to explain part of the conflict evidenced in this chapter's findings, but nonetheless an additional understanding of how normative and regulatory legitimacy interacts with cultural-cognitive legitimacy under certain differing agricultural contexts is needed. Press et al. (2014) propose a model in which the dynamics are explained for most agricultural marketing conditions, but when analyzing this chapter's data it was apparent that certain manufacturing priorities found in a product such as wine (as different from wheat, corn, etc.) do not fit seamlessly into their model. Moreover, the model explains reasons for lack of strategic changes in particular organizations but does not explain how marketplace dynamics might be altered. In particular, this chapter aims to further elucidate how normative and regulatory contestations can disrupt previously shared systems of cultural-cognitive legitimacy, and what this disruption means for market development.

2.2.3 Converting to an ideology

Previous research has studied social movements and market development using a lens of ideology and religious overtones; for example, Kozinets and Handelman (2004) use the figure of myth and ideological conflict to describe anti-consumption activists views, as opposed to what activists portray as regular consumers' lack of morals. In their study, consumer activists set themselves apart from consumers by relying on ideological identity resources with religious overtones and characterizing the

non-converted as greedy, ignorant, and unconscious consumers who need to be educated and hopefully converted.

The characterization of the opponent as an unenlightened adversary, with the radical and marginalizing views that certain anti-consumption activists express, is a recipe for failure when the intention of the movement is to recruit and convert more consumers into their ranks (Kozinets and Handelman 2004).

Nonetheless, it is not clear how a more transitional movement (as opposed to a radical one) can work to convert the unconverted. This chapter continues the examination of market mediated explorations in which consumers seek to resist mainstream consumer culture (Kozinets 2002) and thus potentially help rejuvenate a market (Holt 2002). Previous consumer research (e. g., Holt 2002 and Kozinets 2002) has focused primarily on emancipatory efforts from oppositional consumers seeking to divorce themselves from mainstream marketplaces. Following Thompson (2004), who states that no clear limits exist between emancipatory and mainstream marketplaces, this chapter further develops the argument of alternative spaces born from within and continuing in current marketplaces.

An emergence of social consensus, needed for the process of conversion described above, can be achieved via ideological recruitment (Thompson and Coskuner-Balli 2007a). This recruitment includes processes of collaborative participation and persuasion/socialization; it conveys that consumers are part of a group with shared ideologies and goals, and that members of the group have a commitment to community and core values (Ibid.).

Nonetheless, there is no clear explanation of how members of such communities rationalize and overcome the practical inconveniences posed by participation in certain groups (e.g. community supported agriculture, where inconveniences include higher

pricing, shared risk, limited consumer choice, etc. (Thompson and Coskuner-Balli 2007a)) as opposed to the standard norms that govern the mainstream marketplace. For the case of non-conventional winemakers, this chapter seeks to provide a better understanding of how members of an alternative production movement (i.e., advocates for more sustainable winemaking) rationalize and accept the necessity to pursue certain winemaking practices that require more manual labor and are more time consuming than conventional methods.

2.3 Sustainability and nature: An understanding through the lens of environmental ethics and deep ecology

In September 1962, Rachel Carson's "Silent Spring" was published, making Carson one of the most influential figures in environmental movements since Henry David Thoreau (Griswold 2012). Some even suggest that her work gave birth to the modern environmental movement (Michaud 2010). Rachel Carson had not only a deep understanding of what ecology means, but an appealing way of writing, reflected earlier in her first work on natural histories published in *The New Yorker*; "Carson combined a scientist's ability to see with a novelist's ability to imagine" (Rothman 2012).

Among other topics, Carson's book was among the first to share with the public information on the effects of pollution, which was previously known only within the scientific community. Her novel promoted a message: if humans poison nature, nature will poison humankind back. Furthermore, Carson was against the Christian belief that nature exists to serve man and against technological innovations through which humans seek to control nature (e.g. via pesticides), arguing that these technologies would disrupt the natural system that had worked so well up to that point (Ibid.).

The environmental movement has evolved in different areas, including the development of a radical opposition to genetically modified organisms (GMOs).

Vandana Shiva, for example, has taken this opposing position, though not without a fair amount of criticism from both media (see for example Entine 2015; Specter 2014) and academic writers (e.g. Gilbert 2013; Herring 2006).

Vandana Shiva argues that the pre-colonial subcontinent (having unity in feminine and masculine principles) had more ecological values than what Western culture brought with it (McGurty 2019). Without feminine values, Shiva argues, men would separate from women and nature, and ecological disaster would occur. She proposes that the female ‘tree huggers’ from the Chipko movement in northern India embody the necessary feminine principle required to prevent an ecological catastrophe (Ibid.).

Nevertheless, some of these environmental movements have faced criticism. Perhaps as a reflection of today’s criticism and distrust in many environmental discourses (for example, as a result of perceptions of greenwashing), the term “tree hugger” is now an official dictionary entry meaning “someone who is regarded as foolish or annoying because of being too concerned about protecting trees, animals, and other parts of the natural world from pollution and other threats” (Merriam-Webster n.d.). Moreover, what was once considered a clear environmental model of sustainable agricultural production—organic food—has become a set of standards (do’s and don’ts) that have been adapted to the demands of large corporate farming (Thompson and Coskuner-Balli 2007a). Through co-optation of various environmental discourses (Thompson and Coskuner-Balli 2007a, 2007b), corporations have become interested in promoting themselves as sustainable and environmentally conscious, looking to satisfy specific consumer niches.

Located outside of the different co-opted environmental and sustainability frameworks, deep ecology advocates for the intrinsic value of nature independent of its

value to human interests, and for the minimization of human interference with nature (Mathews 2001). This environmental position bases most of its propositions on the separation and interaction of humans and nature.

2.3.1 Nature and anthropocentric values

Many scholars have analyzed how nature has been conceptualized and used in diverse human social and cultural contexts. In many cases, contradictions exist within consumers' experiences of nature (Canniford and Shankar 2013) and within nature as a concept itself (Soper 1995). These contradictions take place in an era where there is no longer a clear separation between natural-oriented and mass production markets; once an antithesis of the corporate-industrial food production system, the organic foods movement has been divorced from many of its oppositional values and now forms part of a niche market of some of the biggest food corporations in the world (Thompson and Coskuner-Balli 2007a). This reality has resulted in the development of new forms of expression that promote responsible and sustainable practices (e.g. community supported agriculture (Thompson and Coskuner-Balli 2007b)). These forms of expression encourage a sentiment of enchantment, with an idealized, romantic view of nature in which local farms and local farmers are admired (Ibid.).

Recent research has worked around the concepts of sustainability and nature, evidencing the connection between both (e.g. de Burgh-Woodman and King 2013). This chapter shows how this assertion, although true, might be complemented by adding a specific interpretation to nature as part of sustainability. It will demonstrate how the concept of sustainability, from a producer perspective, is understood in terms of nature's usefulness to production purposes. For instance, this chapter provides insights into how the conventional interpretation of natural resources from a (wine) production perspective reflects an anthropocentric utilitarian and industry-specific view of nature as

opposed to a more holistic and environmental view of nature or sustainability (where resources represent the ecosystem services provided by nature's systems and where nature has intrinsic value on its own, as conceptualized in Deep Ecology).

From a conceptual point of view, there are many different interpretations of nature. Two views of nature relevant for this chapter are the objective view and the subjective view, the latter of which has been studied by consumer researchers from the perspective of a person (e.g. Canniford and Shankar 2013; de Burgh-Woodman and King 2013). In this conceptualization of nature, it is a self-created symbolic construction that a person uses for identity-creation purposes when feeling part of a specific agenda and seen in opposition to another discourse (Luedicke et al. 2010). Furthermore, the human/nature connection has been tied to the symbolically sustainable discourse, which rarely goes beyond a material/practical statement (de Burgh-Woodman and King 2013). This human/nature connection is a construct in Western cultural discourse and can be traced back to Greek mythology and its turbulent relationship with the natural elements, represented by each god (de Burgh-Woodman and King 2013). Both the relationship with nature and the human/nature connection have evolved over time, and today's discourses around nature are necessarily tied to the development of the modern environmental movement.

But by putting nature in opposition to human individuals, researchers are drawing a line between the two. Some have posited this division as inexistent or socially constructed, while some view nature as an entity external to human influence, readily available for human interaction and enjoyment (Canniford and Shankar 2013). This view of nature is defined in terms of the concept of 'otherness' to humanity, in which nature is seen as opposed to culture, history, or anything defining the order of humanity (Soper 1995). Nevertheless, newer generations of commentators have begun to set aside

the vision of nature as the antithesis of society and have framed nature instead as a social construction (Castree and MacMillan 2001) and a discursive-material assemblage (Canniford and Shankar 2013). According to Whatmore (1999), there are two types of nature conceptualized as social construction. The first claims that economic interests have reconstituted nature at every level, using technology and science. The second argues that nature is culturally constructed via systems of signification and meaning. In this view, words, concepts, and explanations of nature are all affected by biases and prejudices inherent in each person's culture. This idea has gained strength in considerations of nature as an experience that is socially constructed via cultural discourses and other practices (Arnould and Price 1993; Belk and Costa 1998; Kozinets 2002; Tumbat and Belk 2011).

In Western civilization, nature is often defined in contrast to humans and all human creation. While nature is considered to occur spontaneously (an objective view of nature as independent of human thought and intervention), that which humans have created is considered to have occurred artificially. In other words, nature is associated with *physis*, that which is naturally determined, and that which is associated with humans is considered *nomos*, that which comes from culture or social norms. This view reinforces the binary between humans and nature and presumes that the creations of humans are, first, not part of nature, and, second, that humans are the only beings (apart from God in Western Judeo-Christian discourse) able to create (Soper 1995). This binary is only reinforced in the discourse of stewardship. Stewardship, a concept that evolved out of religious discourse, mandates that humans are the caretakers of nature. This view has been criticized in environmental ethics for having anthropocentric, speciesist, and sexist connotations (Welchman 2012) but is nonetheless a prevalent concept within Western discourse.

The concept of “stewardship” is mobilized equally by grassroots movements, corporate entities, and policy makers. Thompson (2004) suggests that alternative consumption movements, such as the organic movements and community supportive agriculture movements (CSA), have roots within ecological stewardship ideologies. Such stewardship ideologies give these movements a perceived moral high ground in opposition to the industrialized food systems (Press and Arnould 2011). However, at the same time, stewardship principles are being mobilized by large corporations to give the impression of corporate social responsibility (Marrewijk 2003). Such orderings of stewardship are also often framed in terms of semiotic codes of sustainability, for instance, in the promotion of grass-fed meat and dairy (Weber et al. 2008). Further, Giesler and Veresiu (2014) argue that the principle of stewardship is mobilized by policy makers as a way to both encourage consumers and citizens to take responsibility for their environmental impact and to shift blame for environmental impact away from corporations and governments. However, other authors who associate stewardship with sustainable development argue that our role as stewards of life on earth has been assigned to humans due to our evolutionary characteristics (e.g. intelligence) and thus it is something we do not ask for but cannot renounce (Gladwin, Kennelly, and Krause 1995). Moreover, Forbes et al. (2009) argue that producers that are environmentally sustainable stewards will have an impact on consumer purchase decisions.

Nature can also be seen as an external place that is socially/culturally constructed as a beautiful and pristine site where everything can be forgotten and one can ‘get away from the daily routine’ (Arnould and Price 1993). From this perspective, nature offers extraordinary, absorbing, and joyful experiences that will not easily be forgotten and that will open the mind to new perspectives and processes (Csikszentmihalyi 1990). These experiences of nature are embedded into social construction, in many cases, to

make the experience intelligible and to help create a sense of life-changing feeling that might not be achievable without the collaboration of fellow participants in the experience (Belk and Costa 1998). In the particular case of the modern mountain man (Ibid.), the experience is considered a consumption enclave that creates an alternative reality for many of its participants. In other cases, such experiences can be prepared in advance, such as in widely known events such as Burning Man in the Black Rock Desert, where the natural setting is altered to provide one such enclave experience (Kozinets 2002).

Ingold (2000) states that science considers stories (such as those narrated by the Cree people, an Indigenous nation in northeastern Canada) to have no significance on the natural world's dynamics. On the other hand, anthropologists argue that these stories are relevant not in the truthfulness of the stories themselves but in understanding them in certain contexts. Ingold argues that there is a paradox in considering culture and nature, as the concept of nature comes from the intentional world of Western science and the concept of culture exists within the intentional world of Western humanism. Thus, the paradox: both nature and culture exist as culturally constructed concepts. As MacCormack (1980) argues, "[n]either the concept of nature nor that of culture is 'given', and they cannot be free from the biases of the culture in which the concepts were constructed" (6). For example, MacCormack (1980) refers to how European ideas of nature and culture relate to our origins and evolution.

Some scholars argue that there are many different natures. Macnaghten and Urry (1998), for example, argue that the numerous contested definitions of nature form a web of understanding of nature. This web orders the socio-cultural processes that govern our interactions with nature. They maintain that to disrupt even one part of this web would

mean that the socio-cultural processes that govern our interactions with nature would be changed.

These contested natures have been evolving and changing in the Western world since the time of mediaeval cosmology. For example, mediaeval cosmology developed an abstracted and personified definition of nature in which nature is seen as goddess, divine mother, and selective breeder, among other concepts that vary depending on the contested relationships between nature, God, and humanity (Macnaghten and Urry 1998). Consumer researchers have shown this to be true when evidencing the different discourses found within nature (Canniford and Shankar 2013). According to Lewis (1964), pre-Socratic Greek philosophers were the first to propose a single and abstract nature (Macnaghten and Urry 1998). As a result, different orderings of nature have developed and evolved throughout human history and represent the different contested natures that Macnaghten and Urry refer to.

Water is an example of the way that nature is seen as natural/untouched as well as a social construction. Water can be seen to belong to the natural world, and natural science will define its effect depending on its state (solid, liquid, gas), whether it is fresh or salty water, deep or shallow, or if it is in a molecular or oceanic scale; however, water can also be interpreted socially as a sacred substance, as life giving, as a contaminant, as a refreshment, and even as a grave (Helmreich 2011).

Nature has also been romanticized by humans. Canniford and Shankar (2013) use assemblage theory to argue that consumers' experiences in nature are a mix of romantic cultural scripts and material geographies and technological resources. The authors argue that assemblage theory considers the emergence of value from networked associations and further extends semiotic readings of culture to one where meanings and uses of

consumption resources are dependent on the web of relations associated with them (Law 2008).

Canniford and Shankar (2013) consider sublime, sacred, and primitive discourses to be unified into the romantic ideology that builds upon the concept of external nature (considered the quintessential romantic concept where the pure self can be expressed, free of the limitations of family, gender, and other social roles (Illouz 1997)).

Sublime nature refers to discourses where adventurous individuals seek feelings of fear and risk that at the same time can be beautiful and pleasurable. The sacred discourse has some similarities with the sublime one, in that both provide fear and pleasure as a way to achieve perceptions of self-improvement; however, the sacred nature discourse uses a metaphorical allegory, where nature is considered a divine entity. Social cohesion and societal integration can be achieved by sacralizing “certain artifacts that are value-expressive” (Belk, Wallendorf, and Sherry, Jr. 1989).

Participation in these expressions, such as experiences in what is considered nature, gives individuals sources of stability, joy, ecstasy and might even give meaning to life (Ibid.). Finally, primitivism comes as a combination of sublime and sacred to oppose the modern, urban, industrial, and stressful way of living. Re-enacting past practices that might look rustic and countercultural today is a way to evoke a nostalgic/heroic time where everything was simpler (Belk and Costa 1998). In contexts such as this, nature is revered and a “quasireligious naturalism” is enacted (Ibid.: 234). It is common for people to try to find a communion with nature when they deal with such romantic experiences (Arnould and Price 1993).

Many advertising efforts have built a level of expectation around this sacred pilgrimage towards that part of the world still untouched by humankind (Belk et al. 1989). One of the concepts considered in communing with nature is relying on nature’s

ways of doing things: for example, not carrying a watch but using sunrises and sunsets to guide one's activities (Arnould and Price 1993). This can be seen in other contexts, such as when nature is an external force that cannot be controlled or tamed and thus humans' activities are left to the mercy of nature's doings. Tumbat and Belk (2011) challenge this romantic proposition by analyzing consumption in nature where no romantic ideals or virtues of self-efficacy are present. In the case of climbing expeditions at Mount Everest, the authors challenge the notion of extraordinary experiences as romantic and communal, and instead present those extraordinary experiences (in nature's realm – Mount Everest) as displays of "selfish motivations, conflicting goals, and extreme individualism" (Tumbat and Belk 2011, 43). On the other hand, consumers can use purifying practices to deal with contradictions and tensions between discourses and material nature, and in doing so, strive to maintain romantic experiences of external nature (Canniford and Shankar 2013). For these consumers, nature is seen as having its own agency and thus becomes an uncontrollable entity.

As indicated by the myriad angles of analysis and conceptualization, nature is a concept with diverse meanings (Arnould and Price 1993; Belk and Costa 1998; Canniford and Shankar 2013; Kozinets 2002; Tumbat and Belk 2011). Different experiences and different cultures produce different symbols of nature. These different symbols ascribe to nature different, contradictory, and complex meanings: savage and noble, chaotic and ordered, carnal and pure, mechanistic and organic, and passive matter and vitalist agency, among others (Soper 1995). These dualities characterize an antistructure-structure dichotomy found in several Consumer Culture Theory studies (e.g. community versus market, extraordinary versus quotidian, sacred versus profane, nature versus culture, among others) (Tumbat and Belk 2011). These contradictions and dualisms (or betrayals, as analyzed by Canniford and Shankar (2013)) show how

concepts such as sustainability need to be taken into account, in particular when the social practices that structure what we deem “natural” are discursively ordered (Macnaghten and Urry 1998). As these authors argue, the analysis of everyday conversations has relevance in contrast to official rhetoric and models such as sustainability. This chapter continues Canniford and Shankar’s (2013) research on experiences of nature by investigating other culturally pervasive dualism present in nature, and the ways people deal with them: sustainability as a clash between humans and nature.

Conservation has been considered the science aimed at protecting nature (seen from an external, scientific, and pragmatic perspective). In particular, conservation has been understood as protecting nature from people. This idea is particularly relevant since there is widespread consensus that most of what we call nature has been affected by humans already (Kareiva et al 2007). With this in mind, the concept of wilderness is more a regulatory or management designation than a space free of human interaction (Ibid.). From this perspective, nature has become domesticated to serve different human needs. According to Kareiva and colleagues (2007), human domestication of these wild spaces will be a key scientific and social issue to consider in the future. Environmental concerns might arise, depending on what a landscape, ecosystem, or species is chosen for and how it is domesticated.

Environmental and animal welfare interests have a strong influence on people’s attitudes towards organically grown products; i.e., the more interested people are in these topics, the more ‘positive attitude’ they have towards organic foods (Honkanen, Verplanken, and Olsen 2006). In spite of this, there might be cases where people concerned with protecting nature might not see the connection between their environmentally conscious values and organic foods (Ibid.). This happens in part

because of the lack of a clear definition of what an organic product is; the word ‘organic’ has many meanings and can be interpreted in diverse ways depending on the context, and thus one needs to consider the variations within what is considered an ‘organic food consumer’ (Hughner et al. 2007). Nevertheless, there are certain values that have been associated with organic consumers in various studies: altruism, ecology, universalism—caring for the welfare of people and nature—benevolence, spirituality with oneself and with nature, and independence of actions and thoughts (Makatouni , 2002; Fotopoulos and Krystallis 2002; Grunert and Juhl 1995; Hughner et al. 2007; Zanolli and Naspetti 2002). Furthermore, organic foods, now a niche in the food market, are often considered the spearhead towards a more sustainable food system (Vittersø and Tangeland 2015). In spite of current discourse questioning the health and environmental benefits of organic foods (Ibid.), the organic movement has been connected with environmental concerns and values of protecting the environment and harmonizing with nature (Grunert and Juhl 1995). This is also present in other enclaves, such as local food movements, that share characteristics with the organic movement.

One movement that is indicative of sustainable food trends is the Community Supported Agriculture (CSA) movement, which promotes consumption of local agricultural products and involves both consumers and producers in a nexus of discourses around harmonizing and connecting with nature (Thompson and Coskuner-Balli 2007a). As with the aforementioned experiences in nature, such ethical consumerism will remain a marginal social movement until either more extreme environmental conditions urge for it or more engaging and captivating experiences promote such ideals and values (Ibid.).

Another sustainability/natural initiative is seen in the grass-fed meat and dairy product movement. Weber et al. (2008) analyze the market creation for this specific

niche and provide cultural codes connected with this development: the natural as opposed to the artificial, where grass-fed products are seen in the romantic view of nature as pure and clean, as opposed to spoiled and dirty because of human influence; and the sustainable vs. the exploitative, aligning grass-fed products with the notion of sustainability. These notions of romantic ideals of nature (and naturalness) are aligned with previous research on the topic (e.g. Arnould and Price 1993; Belk and Costa 1998; Belk et al. 1989; DaCosta and Illouz 1998). Furthermore, the cultural codes present in grass-fed movements (including naturalness and sustainability) have been present in environmental movements since the 70s (Weber et al. 2008) and had a seed in Silent Spring (Carson 1962).

This type of sustainability-focused initiative can fall into one of two approaches to sustainability. Soft sustainability implies that one assumes flexible system boundaries between the natural ecosystems humans interact with every day. Strong sustainability is the rejection of this assumption, proposing instead that artificial processes (man-made) cannot compensate for ecological losses (in other words, “nature can only be replaced by itself”) (Schlör, Fischer, and Hake 2014: 55). Stal (2015) argues that soft sustainability seeks to achieve sustainable development within the current, capitalist economic paradigm through economic growth; this soft approach to sustainability proposes eco-efficiency and ‘green’ innovations, arguing that more radical/structural change is not possible (Orsato and Clegg 2005). In contrast, strong sustainability argues there is a need for a transformative change, such as stopping economic growth and/or reducing current economic scale (Stal 2015). In the soft sustainability category, consumers seek to contribute with their daily behaviours and choices. Giesler and Veresiu (2014) argue that this follows a neoliberal postulate, which increases the ethical responsibility of individuals rather than assigning it to the state or corporations. The

authors present four types of responsible consumers emerging from these dynamics: the bottom-of-the-pyramid consumer, the green consumer, the health-conscious consumer, and the financially literate consumer. All these consumer types can be considered soft sustainability consumers, as opposed to more radical, committed, and/or strong sustainability (anti-corporate) consumers (e.g. (Bekin 2005; Brace-Govan and Binav 2010; Cherrier 2010; Izberk-Bilgin 2010; Sen et al. 2001; Zavestoski 2002)).

Although some areas of research largely privilege culture over nature, it is not true that culturally supremacist understandings have entirely replaced biologicistic ones (Newton 2007); instead, they coexist, and some argue their distinctiveness is crucial (Franklin, Lury, and Stacey 2000). In spite of this, there is still a tendency to privilege culture over nature when considering nature (and gender) as performative and socially constructed (Newton 2007). Soper (1995) argues that there is a productive tension between cultural and biological (which she calls nature with an independent existence) perspectives on nature. As she puts it, “while it is true that much of what we refer to as ‘natural’ is a ‘cultural construct’ in the sense that it has acquired its form as a consequence of human activity, that activity does not ‘construct’ the powers and processes upon which it is dependent for its operation” (Soper 1995, 249). So, nature needs to be considered as both a symbolic and a material object. For this chapter, both rationalizations will be considered by approaching nature as a material-discursive assemblage as defined by Canniford and Shankar (2013).

2.3.2 Terroir: a central element of nature and sustainability in the wine world

A product’s backstory is key to the construction and use of sustainability discourses; for the case of wine, this backstory has much to do with nature and the land where the grapes were grown (Demossier 2011). Was a given product manufactured without pesticides? Did its production have a low-carbon footprint? In the world of

wine, *terroir* (a French term incorporating the unique, location-specific elements of individual micro-climates, such as soil composition, shade, light, and landscape—in sum, the entirety of all the environmental features of a given vineyard) is said to create the character of the resulting wine—a topic of debate within the wine world (Robinson and Harding 2015).

Today, *terroir* is a globally recognized element in the wine industry, a term referencing the local characteristics of a particular location that affect wine produced by grapes grown in that location. *Terroir* is thus a clear example of a global concept applied to local contexts (Kjeldgaard and Askegaard 2006; Robertson 1992; Thompson and Arsel 2004).

With a special relevance in French culture, *terroir* is used to characterize a diverse array of products, including Roussillon peaches, Limousin beef, Noir de Bigorre pigs, and Bresse chickens (Erlanger 2013). *Terroir* can be invoked as a sign of quality tied to specific places. For example, it is a sign of the specific varieties and sensory characteristics in the wines. Farmers' markets and community-supported agriculture (CSA) in the U.S., for instance, offer locally grown products during relevant seasons (Thompson and Coskuner-Balli 2007a, 2007b). When consumers engage with the idea of *terroir*, they may request a product that might not have been locally produced, but was produced under very specific conditions, as indicated by the product's *terroir*.

Similar to the oppositional nature of locally-sourced consumption (Ibid.), *terroir*-based products offer an opposition to industrialized, mass-manufactured products (Erlanger 2013). *Terroir* has recently been used as a tool for emphasising the rootedness of specific wines and as means for localities to respond to globalization (Demossier 2011). Nonetheless, and despite some wine connoisseurs' almost quasi-religious views of wine, winemaking has historically been a commercial endeavour, as are other

branches of agriculture (Phillips 2000, 324). Phillips (2000) notes that corporate takeovers of famous vineyards have become common in both the New and Old Worlds. This change of ownership, as seen in Bordeaux châteaux wines or Burgundy domains, has not affected the wines' original integrity (Ibid.).

Because terroir is embedded within the dynamics of the human/nature relationship, this concept is relevant not only to understanding discourses related to regional winemaking and wine consumption but also to understanding how consumers relate to nature in diverse ways and contexts. As Varriano (2010: 8) explains, “[t]he grapevine itself was the source of wine’s mystique. Vegetation cults celebrating the earth’s fecundity are the oldest and most deeply embedded in human consciousness.”

In its connection with nature and terroir, wine plays a unique role among alcoholic beverages. Artisanal craft beers, for example, are famed for the brewing techniques and ingredient blends used in their production, rather than for the soil in which the barley and hops were grown. Indeed, the natural process of fermentation continues to be perceived in sharp contrast to the artificial process of distillation (Phillips 2000) and serves to further distinguish wine from beverages such as gin, rum, vodka, and whiskey, which all feature very high alcohol contents. Moreover, the perception of wine as embodying terroir, and thus as a natural product, places it on the continuum of the natural food and drinks category.

For this chapter, the concept of terroir will be a key element in how wine producers justify and enact their winemaking and wine growing methods. Moreover, it is one of the defining elements of the framework of sustainable wine producers proposed at the end of this chapter.

2.4 Research methods

This article analyzes the wine industry in the Okanagan Valley, British Columbia, Canada as one in which there is a disposition for local produce, but at the same time, not enough development of a clear sustainability discourse. Similar to local food movements around the world (Thompson and Coskuner-Balli 2007a), the Okanagan wine industry expresses an opposing view to globalized and de-territorialized food (and produce) growth and distribution. This region also provides a unique opportunity to study a nascent wine region with no clearly defined identity.

Following the central role of the winemaker in the wine industry (Demossier 2011), the interviews and analysis focused on the winemakers' perspectives. A first participant observation was implemented within a vineyard and winery operation and then, having a more nuanced understanding of how a winery operates, a series of interviews were conducted with 19 participants who included winemakers, winery managers, winery owners, vineyard manager, and winery researchers. These interviews lasted 1 hour on average and in cases where additional information was needed, a second interview was conducted. Additionally, many of the interviews were done at the winery locations, sometimes shadowing the participants as they worked.

To have a deeper understanding of the dynamics within the industry and how they connect to the broader sustainability agenda, as well as to gain a more complete view of the processes that occur within a winery-vineyard in this region, participant observation at a local winery/vineyard lasted approximately 6 months that covered the growing and harvesting seasons. The first part was conducted at the vineyard and the second at the winery. During both periods, daily field notes were taken after each work day and were used for better understanding and developing the analysis and themes from the project.

The participation observation and overall interactions with all participants were done by assuming the role of both a buddy-researcher and credentialed expert (Snow,

Benford, and Anderson 1986); the first role involved mixing the role of both researcher and friend/co-worker, attempting to blend as part of the workforce, making oneself more accessible for informal discussions but at the same time acknowledging the researcher status. In this way, the researcher role helped to validate or justify asking about specific matters, and the co-worker/friend helped generate enough trust and rapport to elicit honest answers (Ibid.). The credentialed expert role (as PhD student from a recognized local university) helped to get access to information that might otherwise not be readily available (Ibid.).

The participant observation was done during the growing season in the vineyard and during the harvest season in the winery. For both periods, workers (either vineyard or winery) had the option to work full days (approximately eight hours), six days a week. For this project, the participation was kept between four and five full days a week, for approximately two to three months at each location. Most days were very similar, with a short, ten minute coffee break in the morning and a thirty minute lunch at noon. Besides the occasional opportunities to talk with coworkers during the working hours, these breaks were good for further talking and building ties with the teams. At the vineyard there were around twenty seasonal workers, usually cycling between different members, with maybe two to three full time employees that interacted with the author; at the winery, the team was made up of eight to ten people and around half of them were full-time company employees.

First, the participant observation and the informal discussions and interactions followed a logic of eliciting participant perspectives *in action* by using nondirective probes (Snow and Anderson 1987). Follow-up interviews were carried out to document the key participants' perspectives *of action* (Ibid.) on the topic of sustainability and their role as employees of the wine industry. These interviews consisted of two sets of in-

depth, semi-structured interviews (each lasting an average of 1 hour) conducted with nine key participants within the winery to study how the company, from each particular area (e.g., vineyard, winery), establishes itself within the concept of sustainability; the first set of interviews was done after the participant observation project and the second set was implemented one year later, following the next growing and harvest seasons. Interviews and other conversations with other wine producers occurred after the participant observation phase was completed, because having a better understanding and hands-on experience of the winemaking process aided in adding specificity and relevance to the conversations with interviewees.

The interviewed participants could be classified as working in either a conventional or unconventional way, as previously described in this dissertation. Conventional was the most widely used approach and relies on approved standards that allow for the use of multiple products, processes, and technologies when working in the vineyards and cellars. Most of the conventional wineries and winemakers that participated in this study have adopted some individual, environmentally conscious initiatives across their operations. The non-conventional (or alternative) wineries and winemakers that participated in this study are those that fall outside the conventional winemaking approach; they implement a series of environmentally conscious initiatives in a systemic way. Some of these wineries implement organic or biodynamic vineyard practices and some (that could be considered wineries producing natural wines) also incorporate cellar practices that intend to reduce the degree of human intervention in winemaking, as described earlier in Chapter 1. A complete list of interviewees is provided in Table 2 below.

Table 2: List of participants

Pseudonym	Main role in the wine world	Winemaking approach*	Age range
Alisha	Winemaker	Conventional	40s
Andrea	Winemaker	Non-conventional	50s
Doug	Winemaker	Conventional	50s
Daniel	Winemaker	Conventional	40s
Emma	Winery customer experience manager	Conventional	40s
Eric	Winery general manager	Non-conventional	40s
Greg	Assistant winemaker	Conventional	50s
Ian	Winery owner	Conventional	60s
John	Winery owner	Conventional	50s
James	Winemaker and winery owner	Non-conventional	40s
Karen	Winemaker	Conventional	50s
Kayla	Winery manager	Non-conventional	30s
Mark	Winemaker and winery owner	Non-conventional	30s
Nancy	Winemaker	Conventional	40s
Simon	Winemaker	Conventional	30s
Samuel	Winery owner	Non-conventional	60s
Tania	Winery researcher	Conventional	30s
Jacob	Vineyard manager	Conventional	50s
Tom	Assistant vineyard manager	Conventional	40s

**Conventional: the most common winemaking approach, following accepted standards in what can be used in vineyards and cellars – no clear systemic environmental approach / Non-conventional: contesting the accepted standards – more systemic approach to environmental initiatives*

All interviews were conducted either at the work locations or via telephone calls. Each interview in the first set started with questions regarding the participants' context and background, including their motivations and reasons for being in the Okanagan wine industry, and then moved to the concept of sustainability, the broader wine topic, and the wine industry and sustainability in the Okanagan Valley. For every interview, the following guidelines were followed: (1) using funnel questions (general to specific topics), (2) not asking "why?" (Thompson, Locander, and Pollio 1989) but asking in a

less threatening or indirect manner and focusing on useful follow-up questions, (3) avoiding yes/no questions, (4) using probes in a judicious and strategic way, (5) circling back to earlier topics for more depth and missing areas, and (6) exploring certain tangential and potential topics, all suggested by Belk, Fischer, and Kozinets (2013). The second set of interviews followed a funnel and circle logic, returning to discussions from the interviews done one year before (taking general topics to more specific details and circling back to topics previously discussed that needed more detail) (Belk et al. 2013). There were also questions about the differences between seasons and what those changes implied in terms of sustainability.

As discussed earlier, each interview was semi-structured to assure that sustainability and the wine industry were both discussed, but each participant was able to change topics and set different courses of conversation with the interviewer, taking from the different stories or points presented by the interviewee. This followed a phenomenological interview approach similar to that seen in Thompson, Locander, and Pollio (1989). The goal for the phenomenological interview is to get a first-person description of a specific experience (Thompson, Locander, and Pollio 1989). For this purpose, the interviews were intended to produce a conversation rather than a question-and-answer session. It was also important that the interviewer not be seen as more knowledgeable, in order to maintain a sense of equality with the interviewee (Ibid.). This was done by talking in an informal and friendly manner and by interviewing in locations where the interviewee felt more comfortable and knowledgeable, such as their working place. All interviews were audio-recorded after receiving informed consent. Respondents were told about the purpose of the study, the taping of the interview, and assured of their anonymity.

Photographs were also taken as part of the data collection process, during different stages of the participant observation and when permitted by the wineries. These images were taken to complement the textual data and to help the researcher recall different circumstances and events that occurred during the participant observation and interviews.

The author has been part of two different regional committees (one on sustainable wine production and the other on organic agriculture), in contact with different winemakers and winery owners, and has been a participant at other wine-related events such as wine conferences, wine sensory profiling sessions, and winery tours. This experience, among the author's other experiences in the wine industry over a number of years, has helped inform the findings and discussions presented here.

Following ethnographic procedures in marketing research (Arnould and Wallendorf 1994), the data collected has been analyzed systematically for themes and connections using NVivo, a qualitative analysis software. This software provided the ability to organize different types of files (e.g., text and images) and was essential in displaying and coding the data. Referring to a previous version of NVivo, Lewis (2004) argues that it is among the most useful qualitative data analysis tools. His description of the software is useful here (he is describing both NVivo and ATLAS.ti, another qualitative analysis software): "Both products enable the researcher to associate codes or labels with chunks of text, sounds, pictures, or video; to search these codes for patterns; and to construct classifications of codes that reflect testable models of the conceptual structure of the underlying data. Both are tremendously flexible programs that can be readily applied in a wide range of applications" (Lewis 2004: 439).

Three sets of data were used in the software: audio recordings of the interviews, transcriptions of the interviews, and field notes. Within each document, certain key

sections were coded and assigned to specific codes representing a topic. Furthermore, this process of assigning codes enabled the researcher to focus attention on the material that was coded. After the coding was done for all files, the different codes and data within codes were contrasted and compared. After this process, a new revision was done to re-assess the need for further coding and changing, merging, or separating codes. The company's website and the different informal experiences in the wine context were also considered when analysing the codes. In this way, multiple sources of data were used to achieve a nuanced and contrasted interpretation. Rather than looking for convergence in interpretations, ethnographic approaches look for varying perspectives on behaviours and context (Arnould and Wallendorf 1994). This proposition by Arnould and Wallendorf was followed on this research, considering the need to have diverse and contrasting views on how different areas of the wineries operated and how they defined and enacted sustainability.

For interpreting the data, a hermeneutic approach was used, as presented by Thompson (1997), which focuses on the underlying meaning system and thus discerns key patterns of meanings in participants' responses, identifies key patterns emerging from different interviewees, and derives broader conceptual implications from the analysis. Specifically, the iterative analysis process was divided into three stages, as proposed by Thompson (1997). During the first stage an intratext analysis was implemented in which the interviews and field notes were read from beginning to end, to gain a sense of the whole for each text. Additional readings helped to get a better sense of integration between different interviews and field note details. The second stage consisted of intertextual analysis in which patterns and differences were evidenced across different interviews and field notes. After this second stage, a third was implemented, doing what Thompson (1997: 441) calls "interactive movements between

the intratextual and intertextual interpretive cycles.” These interactive movements enabled changes in certain initial interpretations of texts after gaining relevant insights later in the analytical process. Only after these stages were complete did the themes emerge from the texts and from the codes assigned in NVivo.

2.5 Findings: Wine producers’ understanding and enactment of sustainability, nature, and quality through the lens of myth and ideology

All participants described sustainability in wine as an additional element to the main pursuit of the winemaking process: the making of a pleasant and high-quality product. Nonetheless, a continuum of sustainability was evidenced as producers on one extreme had sustainability as an afterthought and focused on very specific and localized initiatives, whereas producers on the other extreme of the continuum had sustainability imperatives at the forefront of their winery’s identity. While most producers described quality in winemaking in terms of the use of terroir and the winemaker’s abilities, among other elements, what made these characterizations distinctive between producers was how they rationalized and negotiated the legitimacy of winemaking practices at three different levels: regulative, normative, and cultural-cognitive (Humphreys 2010). This rationalization happened through the use of what has been analyzed by other authors in consumer research in terms of mythic and ideological resources (Luedicke et al. 2010) and serves to characterize the two extremes of the sustainability continuum in winemaking.

Winemaking started a few thousand years ago (McGovern 2003) and has been aestheticized in relation to terroir for over two thousand years (Swinburn 2013). Therefore, in contrast with markets that have been aestheticized relatively recently, such as beer (Maciel and Wallendorf 2017), new alternative markets within a market like wine face a long-established tradition of wine making and tasting. This is evidenced in

the findings in the form and concept of quality and how it is legitimized within the industry.

The following findings provide the outline of how producers are split between two interpretations of sustainability, defined by the use of nature, technology, and human interventions.

2.5.1 Defining and legitimizing quality: a balancing act between terroir, technology, and human intervention

When talking about the importance of having a technical palate as a winemaker, Simon talks about the key features that are to be expected from a quality wine:

For me it's all about balance. There are different types of balance in wine but it's always acid balance, oak and fruit balance, alcohol balance, those are the keys for me, which I'm always striving and creating complexities. (...) It should reflect the varietal, obviously. And then maybe reflect the region. (...) But for me it's purity of fruit and then achieving the balance, and being able to produce something that's interesting, not just the same as everybody else. (...) Depth of color in a red, varietal characteristics in both, acidity in both for longevity, and tannin ripeness in reds. Those are all components of quality.

Some of these characteristics described by Simon follow long established principles in winemaking and are learned either by experience or by education. Without this knowledge, one could not assess the quality of a wine and would not be able to assess taste by the same measure, evidencing a social hierarchy (Bourdieu 1984; Holt 1998) in certain wine contexts. Simon has both winemaking experience and formal wine education in the form of college wine courses and a master's degree in enology.

Natural winemaker James, who has an enology degree, argues that universities teach to optimize and make award-winning wines:

I was taught how to make an optimized wine that had the best sex appeal, so to speak, so that consumers and critics, you know like the aka Parker sort of thing, like how to get the high scores. So you can make this big opulent red or this aromatic sexy white. And that's fine, you know, the end result might taste really good but to get there they had to do so many things. (...)

So we're learning all these things to optimize this wine, so that it can be, I always call it more, it can be more aromatic, it can be more... smoother, it can be more of something. And when I'm looking at a lot of the research papers, when I'm scanning through to see if there's anything that I can glean of, even with farming, it's about optimizing ...water usage for flavor ripeness. It's optimizing...fertilizers for crop loads. It's optimizing... so that you can grow the most amount of fruit with the most amount of flavor with ... least amount of effort. And I find it's that level of automate or optimizing that, in my eyes, is sort of making everything taste the same.

Here James refers to “many things” and “optimize” as the different additives and processes that are allowed to be used for/added to wines to reach different flavour profiles or fix certain wine faults. It is through legitimized/institutional mechanisms such as university programs and research papers that quality and taste regimes are articulated and discursively constructed and then used as the bases for the aesthetics of practice (Foucault 1991) in cultures of consumption (Arsel and Bean 2013). Within these mechanisms, wine faults are seen as a central factor that influences the level of quality of a wine. The causes for faults and the way these are dealt with is one of the most contested topics between winemakers with different (and sometimes opposing) views of wine sustainability.

One common approach of wineries with a commitment to ‘premium quality’ is presenting a clean and almost pristine version of vineyards, devoid of any possible pests or intrusions into what consumers’ perceive as a clean and fault-free wine. These wineries want their vineyards and grounds to reflect the premium quality of their wines. As a result, they depict images of beautiful and symmetric vines, where vineyards are perfectly aligned and very well groomed and at the same time roses adorn them (these roses do have a practical use—they can be used to tell when that particular row or vineyard has certain health issues—but they are only used in the specific vineyards that are part of the wine shop customers’ panorama). This view is enhanced by the glass walls used for this part of the wine shop, where consumers can enjoy the sight of the vineyard while enjoying their wine tasting.

While there is a need in the vineyard to control nature to keep the vines up to a certain standard, in the winery, this control starts during and after the grape crushing and follows a pursuit of quality and consistency of organoleptic characteristics defined by the winemaker and winery/industry. This control is implemented via technology, which is also used for improving winery processes and making them less resource-heavy.

This quality pursuit becomes even more relevant when the industry demands higher quantity and quality of wine. When discussing the evolution seen in the Okanagan wine industry, Greg mentions,

The industry has grown...the bar has risen over the years. When I first started here, we had a garage and we had just built a warehouse (...) we’ve upgraded all that equipment, we now have...from when we used to have 20 tanks, we now have like 80 tanks, we’ve gone from 250 tons when I first started here to almost 1400 tons last year. So, it’s been a fairly rapid growth I would say, for this

company anyways, but on the industry as a whole everybody has...there were a lot of really poor wines in the early-mid 90's and everybody has...there's been a lot of people come into the industry that have brought a lot to it, from other countries. Now there are more good wines than bad wines, which used to be the other way (laughs).

This quality positioning and continuous improvement is something commonly heard around the industry. As Greg mentions, the company has grown in terms of both the quality and quantity of the wine produced, keeping up with the market trend. For the winery, the second season was good in general terms, with good quality grapes that resulted from hotter temperatures that particular year.

Everything was good quality because of all the heat and we just picked when it was right and yeah, good year in general. (Nancy)

The grapes from that season, according to Nancy, had particularly high sugar levels and higher pH values. Grape profiles are dependent on the weather in each year, so the general sensorial characteristics with which the winemaker can work are determined by nature. Nevertheless, the connection between grape profiles and their natural characteristics can be disputed when grapes are brought into a winery where, as noticed and performed during the participant observation, different products, including tannins, yeasts, enzymes, stabilizing agents, and sulfur dioxide are added and mixed with the wine.

There are certain qualities inherent to particular grapes and related to the terroir and unique weather conditions for each year, as Nancy mentioned. However, when certain characteristics do not reach a particular quality, there is a need for specific improvements via winery procedures that include enzymes, tannins, and blending with other varietals or blocks (considering differences between terroirs). This follows the

general philosophy of premium quality, as previously discussed. A wine needs to reach certain standards and consistency between vintages before being released to the public; thus, there is a need to implement various procedures and controls within the winery. Supporting this observation, Christ and Burritt (2013) argue that contemporary winery operations have somehow become too dependent on chemically derived products and processes (departing from traditional Old World winemaking values) in a search for quality and competitiveness.

2.5.2 Giving terroir a central role in determining quality and sustainability

Another way to achieve the regulative norms around quality is through the use of land and terroir. All the winemakers interviewed for this chapter mentioned that the fruit they used was an essential aspect of a high-quality wine and thus the importance of the vines and the land on which they are planted. Without a great quality fruit, there can be no great wine. And without the proper conditions to grow a particular grape varietal, the fruit will not achieve the quality required for making a high-quality wine. This is aligned with the role of terroir in regions such as Burgundy; it has a key role in differentiating and hierarchizing quality, and creating the image of the winemaker and winegrower as the guarantors of quality (Demossier 2011).

We have to make wines that truly reflect where they're grown and could not have come from anywhere else. That you're buying a taste, a unique character of the land. (...) What it really comes down to is the right grape in the right site, ok? So for instance, there is a lot of Merlot and Pinot Gris grown in the Okanagan Valley, those are the most planted varieties. And, you know, there are some excellent Pinot Gris and some excellent Merlots grown in the valley but there are also some, let's use Merlot, there are some Merlot that are grown maybe where Merlot it's not ideally suited to grow and maybe it's cropped too high and

maybe it's made a wine that is just not exciting or doesn't have any character that you could get enthusiastic about. (...) So, yeah you have a wine that, you know you're competing against whatever, Yellowtail with it, you know people are just buying it because it tastes good and they're going to get drunk from it, right? They're not buying it because it's giving them aesthetic value. So maybe you have Merlot that comes from somewhere where it has...some kind of tannic structure, it's not so soft and blousy. It has acidity, it has maybe that signature character of sagebrush from the Okanagan. And...suddenly it's an exciting wine, it transcends the variety, it's like you wouldn't buy it because you want a Merlot, you'd buy it because you want an Okanagan Valley wine and you want that character, right? (Eric)

The comparison between a local, medium-sized producer (30,000 cases a year) and an international producer/exporter (11 million cases a year, with a marketing budget for Super Bowl ads) draws a clear contrast between what terroir represents when buying a bottle of wine. This touches on the importance of land and the uniqueness and differentiation that a wine acquires from its grapes being planted in a particular location. Both terroir and the sense of authenticity coming from it will be some of the concepts contested by the alternative discourse, which will be analyzed later on in the chapter.

In this search for a wine that represents its land and a high quality, guaranteed by the winemaker, Pinot Noir is the quintessential grape that combines the need for very judicious work in the cellar and a careful hand in the vineyard (Robinson and Harding 2015).

Daniel: So Pinot to me, of any grape varieties, is the most terroir-driven so it really shows the...growing season, the farming practices more than any other variety I think. Pinot is the most genetically complex varietal. (...)

Interviewer: (...) Why is it that the Pinot Noir, specifically, shows the land more than maybe the other varieties? What is the reason behind that?

Daniel: I think it's the genetical complexity of the plant (...) and because of its genetic complexity, it's more prone to mutations and that's why you have 40 different Pinot clones and you only have 5 or 6 Cabernet Francs, for example. So, I would say genetic diversity means that every little thing that happens to that plant is going to be an effect on how it grows and what it does to its grapes. So the next most complex is Cabernet Sauvignon [...], so Pinot is almost double the complexity of Cabernet Sauv, the actual genetics of the plant... So every little temperature change, every time you water or don't water, every time you... shoot thin or don't shoot thin (...) there's so many choices you make on the vineyard that then affect Pinot more and more than anything else.

Throughout the interviews and participant observations, it was clear that Pinot Noir was considered one of the most complex and temperamental grapes, requiring the most care both in the vineyard and in the cellar. Pinot Noir reflects the archetypal grape to conquer for an established winemaker; a good Pinot wine denotes both the quality of the care in the vineyard and cellar, and a true taste of the uniqueness of the terroir. Pinot Noir has also received accolades thanks to the entertainment industry; the wine achieved a heightened level of popularity and demand after the movie *Sideways*, a 2004 film by Alexander Payne (based on a book by Rex Pickett) in which Pinot Noir is presented as superior to the then-popular Merlot (Robinson and Harding 2015).

Another element of terroir is the different weather conditions that affect the vineyard and that are usually different year by year.

You just look for what the year can give you, if it's a cold year you know you're not going to reach the aromatic complexity you want, if it's a hot year

sometimes you can burn them away, so it's just based on nature. You try to control the yield as much as you can and the crumbliness of the fruit but the aromatic profile is mostly nature-based. . . that's what viticulture is. (Nancy)

When asked what was meant by "nature":

Temperature, the extreme nights, and warm days, frost, too much moisture, rain, mold, wind. (Nancy)

Yeah, there's a lot of things... different soil types, different clones, different rootstocks, like everything goes into it. (Tania)

This interaction between soils and climate is what, when combined holistically, gives a region its unique terroir, a characteristic that is supposedly not replicable and which holds much commercial value for many wine producers, making it a debated and contested subject in the wine world (Robinson and Harding 2015). Acknowledging the young vines that winemakers in the Okanagan Valley can work with, Simon asserts the relevance and value of terroir:

Soils, a lot of people really get hooked up in this terroir and while I think that is important, you have to remember that we are so young, a growing region.

There's not a lot of old vineyards here so how much of the soils are you really showcasing? But definitely we have lots of interesting microclimates and areas that will reflect that region for soil. (...) and being able to produce something that's interesting, not just the same as everybody else. And that comes down to what you do in the vineyard, what are your crop levels. So we crop our fruit quite low. Pinot Noir, around two tons an acre, where the average would be four. Merlot, we're down to three-three and a half ton, you can get as high as six or seven. So the more you keep the balance of the vine and the concentrated fruit, that shows in the wine.

As a young wine growing region, some argue that terroir still needs to further develop to achieve the quality and the status of older wine growing regions. But quality has materialized from both perspectives and according to where the grapes are being grown: in the Old (Europe and the rest of the Mediterranean basin) or the New World (the rest of the wine growing regions).

In spite of stories around how land was selected due to its beneficial characteristics to grow a particular grape varietal, winemakers have to rely on their own techniques in both the vineyard and the winery to properly assess each years' fruit quality. Some new vineyards might not show the quality that older vineyards show, or a vineyard may be affected by climate change and other natural phenomena that alters that quality of the grape (e.g. 2018 was a particularly bad year for forest fires and potential smoke taint). With the many factors influencing wine quality, many winemakers find that human intervention is necessary to reduce risks and maintain certain quality profiles.

With the relevance given to terroir as indicator of authenticity and quality, asking what or how much is added in the cellar can ruin the story of wines reflecting terroir. It can also be difficult, as not every winemaker wants to reveal what they use in their winemaking. Once it was established that certain products (such as tannins, commercial yeasts, and enzymes) were added, the question was how to balance what is being added with the intrinsic characteristics of terroir.

Interviewer: How do you balance how much you are inputting here [winery] and how much do you really want to be just natural characteristics of the terroir?

Nancy: You couldn't just have natural wine. It would be vinegar. So you would have to have impact in both the vineyard and in the winery to try to create a better product (...) With the aspect of the grapes still having a flavor profile and

where they've come from etcetera, but there's a lot of human manipulation, that's what's created the wine industry. Or else gorillas would be making wine.

The use of chemistry and knowing how to improve a wine is part of the job for winemakers as guarantors of quality. This would be contested by winemakers who advocate for a non-interventionist approach in which no additives are used.

We talk about terroir, which I think is a bit of a joke...if we're going to manipulate the wine in the winery, terroir means nothing. So, these guys want to talk terroir and yet they've manipulated the wine so much that it tastes a certain way for them rather than to express the actual terroir. So I don't even like to use that terroir word around here just because I don't think we're there yet. (James)

While evidencing the polarizing view in which he sees others as erroneously using the concept of terroir when wine has been 'manipulated', James expresses a support for his practices as supportive of what is the more natural way. In another part of the interview, he also connects quality to focus and how, as one needs to minimize the intervention of wines in the cellar, one needs to minimize the types of grapes grown in the vineyard:

I feel everyone here is following a playback that has been outdated now for a decade. Like everyone opens up with a couple of whites and a couple of reds and a sparkling and a dessert, and they feel they have to try and appease the public, whereas my greatest wine loves come from Europe: Italy, France, Spain. And you look at all those regions and they're so focused on one thing and what they do but they still offer up a diversity and I mean, even now with only two grapes we're releasing 14 different bubbliies this year.

This again contrasts his practices with what others are doing in the region and aligns them with what he sees as a better way to do things: what the Old World has been

doing with regards to growing only some unique grapes. This thought aligns with what other winemakers and wine experts argue, that if a piece of land is not well suited for a type of grape varietal, or for growing wine grapes at all, then it should not be forced into it. This analysis has a clear connection with the way nature is meant to work; if nature is providing an ideal terroir for growing wine, you go ahead and use it. If nature is not providing you a terroir for wine, you should probably not grow wine there and should not try to interfere with the terroir as it is.

2.5.3 Contestations: How wine producers defend their views and contest those on the opposing side of the winemaking spectrum

One of the main criticisms of natural and nonconventional winemaking methods is the increased chance of wine faults (Goode and Harrop 2011). While acknowledging the risks involved with this type of winemaking, non-conventional and natural wine producers would argue that some of these wine faults can actually be a wine's main appeal. Talking about natural wines, Eric referred to how, in spite of going contrary to the established norms, those wines can create interesting flavors that captivate certain palates:

Part of the appeal of the wine is the off-character, maybe the volatile acidity is exciting, maybe it tastes like a flavor you've never have tasted before, like rotting grape flavor that's exciting and delicious in a strange way, you know. And I love those wines, I find them really exciting. And some of them are just among the most beautiful wines that I've ever tasted. They give you a feeling of...what's it called?...frisson, right?...yeah, where you get this hair on your arm stands up and you get a shiver down your spine like when you hear beautiful music. Sometimes those wines can do that for you because they're so...beautiful. And we make some wines like that.

For Eric, going against typical taste norms that frown upon certain wine faults can lead to an experience involving an overwhelming emotional response, reflected in a sensation of frisson, as one can achieve when listening to certain music that violates a level of musical expectation (Huron 2006).

When talking about criticisms of natural wines, James demonstrated this polarization. You either understand natural wines or judge them as faulted wines:

Most people that don't know natural wine just classify it all as faulted and funky and those who don't get it are still push backing on, you know, hoping that this is a fad and their wines will come back into style again. (James)

Karen, a conventional winemaker, argues that she has not tasted a natural that she has liked yet. When asked about natural wines and her take on them, she responded:

Karen: Uff, yeah, I haven't tasted one that I like.

Interviewer: Why don't you like them?

Karen: I'm assuming that there's some kind of bacterial spoilage involved, I don't know. I haven't done any work with natural wines. I haven't tried, I'd like to try and see if you can do it right. I'm not sure if it's the fact of being a natural wine that makes them not very good, where there's some, they're just not well-made and there's less margin for error if it's natural, right? So things can go terribly wrong fast.

Another central contention between conventional and non-conventional wine producers, and a key topic in understanding their interpretations of sustainability, is the use of technology and interventions to deal with adverse environmental conditions. In the vineyards, grapes are grown and taken care of in a similar way every year. What makes the difference between years comes down to the weather conditions and the particular new issues/solutions emerging from the use of new technologies and the

development of new diseases or pests. After two growing seasons, a vineyard manager, Jacob, was interviewed for the second time about the conditions and general differences of the first season compared to the second. The second season was significantly warmer than the first and thus came with unique issues. According to Jacob, the season was unusual for everybody since it started almost a month earlier than in previous vintages.

Basically some guys, including myself, like kind of panicked mode, you know because you have a usual thing: you finish pruning, you're tying and then finish all your work and then it's like bud break, and then you start your work...last year we were tying and buds, you know how fragile they are...and some guys were caught with bud break and they were still tying down, you know how hard it is when you have a half-inch growth, and once they break...so that was the first unusual thing. (Jacob)

What Jacob points out relates to operative procedures, such as tying and pruning the grapevines, which get complicated due to unexpected issues such as buds growing too much, too quickly. As he mentions, this makes him (and others) uncomfortable because they need to find ways to continue regular operations without damaging the grapes.

Another issue that accompanies an unusually warm season is the need for extra hydration:

Last year...we just really had to stay on top of irrigation...we have little weather stations, we have moisture probes all over... she (referring to another employee) monitors that, so that was a big help and we also bought a new pressure bomb. So we're kind of converting from an older technology to a newer technology in how we're watering, and of course there's always the... you're out there too,

walking and they're signs you can tell if you know what you're looking for.

(Tom)

And then the hot summer, my biggest issue was keeping up with water. I was lucky because I have been on this side for now 16 years, I know where are the dry spots so like you know, this block here (shows a block in a map of the vineyard) can go 10 days with no water but I know this one here (points to a different one) if I dry it out it takes me 10 days to water it back because you know the clay it's hard to soak it once it dries out because it's so hard and it's so compact and dense, the water runs off. (Jacob)

An interesting point here is the use of both technology and experience to deal with water scarcity or dry soil. This combination gives the vineyard team the necessary tools for control. Traceability is evidenced here in the mix between what the workers (vineyard manager) know and what technology facilitates (e.g. weather stations); the use of both resources creates a specific understanding of the microclimates and microconditions/terroir within each vineyard/block. For this to happen, however, there needs to be an openness to change and technology. As Tom describes,

We are always looking for ways to improve the efficiency or upgrade, so now this year we're looking at a portable moisture probe... the big thing will probably just add to this weather station service... and that whole thing will actually model and actually send to your phone 'hey this is prime time for powdery mildew', like this would be when they would germinate so say like you have a big rain for like an hour and then it gets really warm; it will send you a thing, boom you should be spraying tomorrow... rather than just kind of guessing, you know that's kind of the old way and the new way is using technologies like this that kind of really pinpoint, so you know if you gain four

days on a spray, three times a year, you've eliminated one whole spray which can be, depending on what you're spraying, \$2000 to \$9000 and you're not adding all these other chemical inputs.

For Tom, new technologies can improve efficiency and reduce costs. He compares the old way of doing things, in which spraying is done on a particular schedule and only in accordance with the manager's experience, with the new way of doing things, which is to get real-time advice from the input provided by technologies such as the moisture probe. This objectivistic view presupposes reliable technology and the capability of improving and even replacing (e.g. completely changing spraying schedules) the old way of doing things (by experience/gut feeling). Furthermore, costs can be reduced using such technology.

In contrast to this, many non-conventional and natural wine producers will argue that the wine industry does indeed need to take a step back from the extreme intervention that human hands and technology have brought into winemaking and should return to previous (mainly Old World) practices of winemaking (Black 2013; Goode and Harrop 2011; Legeron 2014; Smith Maguire 2018a).

Winemakers with a more mainstream and conventional winemaking philosophy will argue that nature provides a basis for quality but it is through human intervention that wines are improved or fixed.

I'm always harvesting on flavours and tanning ripeness, cause that's the key to wines. We can adjust sugar, legally. We can adjust acid, right? We want to use what nature gives us but our arsenal is we can adjust those things. The flavors and tanning ripeness, you have to get that from the maturity of the grape and your season. (Simon)

Nancy acknowledges that in both the vineyard and the winery, human intervention is at play in molding certain characteristics provided by nature or fixing issues with the wines:

...vineyards...have a huge impact, they determine how the plants are going to be pruned, what the water the plants are going to get, the nutrition the plants are going to get, when it's picked, how it's picked, green harvest and there's tons of ways to play around with the terroir or the aspect of the vine.

When talking about when and how a decision is made to add yeasts, tannins, or other products to the wine while in the cellar, Nancy sees intervention as a way of cleaning or fixing a wine.

A lot of additions impact and improve the terroir, and clean up the wine or impact it, make it a wine that can keep its terroir or its taste even more concentrated, so the impacts are mostly positive. You don't make a negative impact to change the terroir or the wine. You're just trying to improve it. So I guess, yeah, just mostly on daily tasting and how the wine is doing, and if it's healthy and clean you have less impact, if there's some issues, then you have more impact.

Interviewer: What issues do you mean?

Nancy: Well, if it doesn't ferment or it's got bacterial issues, yeast issues, or if it's not clean, or somebody screwed up in the winery and did some error to it.

Tania: Too much sulphur, too little sulphur.

Nancy: Mostly man issues, human issues.

Winemakers with a non-interventionist philosophy contest this approach. They question the inputs that go into the wine and argue that some wineries are not transparent (nor want to be) about what they are adding to their wines.

(...) it's the same reason why people want to buy organic tomatoes or know where their tomatoes come from or the farmer's name. And I think slowly people are starting to ask those questions of the wine, and I think there's also a resistance from the current winemakers to not want that explored because then it means they're going to have to be transparent in what they're doing to the wines and they know already so many additives, people are going to push back if they ever find out. (James)

James gave examples of what some wineries are doing in the region when making wine in a conventional way:

Like I know here we acidify a lot, we deacidify a lot. I know we water back because we let the brix go to way higher than they should just to get certain flavour development, so I know a lot of water is added, I know a lot of fake tannins and settling aids and riddling aids and you know there's so many different enzymes and stuff added to these wines. (James)

Moreover, wineries working in a conventional way use inputs (e.g. fertilizers, pesticides, etc.) as allowed by laws regulating use of these products (i.e., adhering to the current regulative and normative legitimacy in the wine industry), a practice that has been denounced by advocates of natural and organic products who contest the safety of such products, both for the ecosystem where the vineyards operate and for the humans tending to them. When asked if his winery had any organic wines, Tom commented:

No, we can be termed conventional or sustainable or...but really it is conventional. We'll use as little inputs as we can get away with, conventional inputs... you know we have a big composting program but you know sometimes that's not gonna work so we'll have to add like a synthetic fertilizer here and

there in different blocks but we'll compost as well. So it's kind of a combination. (Tom)

This type of process is criticized by organic and non-conventional wine advocates as an attempt to sound sustainable without committing to the cause. While practicing specific sustainability initiatives, Tom's vineyard still seems unable to commit fully to sustainable wine production because of the need to control certain aspects of the wine making process. This stewardship through technology and control of nature's productivity is another contestation to conventional winemaking philosophy that is rooted in environmental philosophy, and which questions the need for control and domination of nature in the vineyard. Eric acknowledges that as farmers, they must struggle with nature in order to get a yield and product:

You create a disturbance in the ecosystem, and you are carving out area for your economic yield. You're kind of struggling against nature to get your yield rather than what nature would regularly produce. We're all farmers, we can't pretend we're not, you know? You got to do something; you have to intervene in some ways to do that. And you're creating an imbalance in nature and you have to struggle against that imbalance that you've created every step of the way.

So...but you also have to learn when nature is your friend, when you don't have to control and dominate it at every step of the way. And I use the example of letting the ground covers go to flower and go to seed, so learning not to mow.

We mow and we keep a clean ground cover because we see all these pictures of vineyards that look like golf courses right? And that's supposed to be a healthy vineyard...and we're taught in viticulture school that we have to have airflow for mildew, so we have to keep everything clean and actually... that's true, we do. But it's not black and white and it's not like everything has to be perfect and

you can leave a foot of flowering plants and grasses under the vines, pluck some leaves around the pruning zone, make sure your canopy management is good and if your ground cover does get too high then knock it down at that point. But let it grow a little first! So it's learning when to partner with nature is better than buying the organic version of the inputs.

Here we see different views on how to deal with nature in the vineyard, opposing the more conventional way of doing things (by keeping vineyards looking like golf courses) as opposed to a more environmentally conscious position. These views have roots in environmental philosophies such as Deep Ecology, which argues that nature has its own intrinsic value independent of human's use of it and questions the ideology of domination (humans superior to nature) (Mathews 2001). Nevertheless, winemaking requires a process of picking what are considered the best grapes for making the best wine. As seen in the previous quote, Eric is aware of this but argues that a relationship with less domination and more partnership is required:

Our entire society has to realign our concept of what's beautiful and what's right. That's sort of a very colonial outlook on things, that everything should be controlled and dominated. Lawn should be cut, grass should be green, it's like... come on, dandelions are good plants you know? When it's dry, when you live in the desert, sometimes you see brown instead of green and that's ok, that's beautiful too. We don't have to colonize everything.

This view, of the colonization of vineyards and their broader ecosystems, reflects a need to go back to how things were done before, perhaps in alignment with the Indigenous ways of tending to the land. This view opposes the technocratic view where humans and their superior discernment can make use of tools such as technology to improve upon the deficiencies found in nature.

In this sense, conventional vineyard approaches have a more control-dominant mindset in that they want to keep nature's complications to a minimum while still trying to commit to some level of sustainability. Considering the positive and negative variables that accompany weather and terroir as they change from year to year, there is a need to adapt with specific technologies. One of the main obstacles to this adaptation is what Tom and other interviewees see as a tension between new and traditional processes in the way wine is made. Those who prefer traditional winemaking approaches and have followed them successfully for many years may disregard new technological advances in winemaking; why change practices that work when one knows what is necessary to produce a great quality wine? Others might argue that such traditional practices don't go far enough: that the industry should reclaim the ways wines were made before the advent of chemical pesticides and fertilizers, the use of which expanded in the 1940s, back to when all wines were 'organic' (the nineteenth century, before chemical fertilizers were introduced into agricultural techniques) (Jones 2017; Jones and Grandjean 2018) or perhaps even further, to Indigenous traditions of caring for the land (Kneen 2017).

The use of organic inputs is one such 'new' practice (as mentioned before, organic wines existed well before conventional wines and organic practices in winemaking just achieved significant scale starting in the 1970s (Jones and Grandjean 2017)) that more and more traditional wineries have been adopting, following the recent flourishing of environmental movements. Along the lines of what Tom mentioned as technology for the sake of using less pesticides and thus reducing costs and inputs, Jacob mentions that, from a vineyard perspective, they are trying to use as many organic inputs as possible.

So I started reading lots about it and going to, not courses, but like every... Sacramento and in Penticton and going down to Ontario like sustainability... it's an inevitable thing, it's going to come, so more organic to save the nature, the more organic I can use, I use it. So basically like all our sprays started switching in 2005-2006 from commercial synthetic chemicals to go more natural. . . I mean I don't want to go totally organic because you know, organic or biodynamic you know what your biggest enemy is weeds, so just going around in the vineyard, you've seen it, if I don't weed spray, there are weeds this tall (gestures as representing a big weed), you're pulling them out and all that stuff. . . I'm doing more sustainable and organic than synthetic chemicals and all that stuff like manufacture, and also the agro science BASF, you know the manufacturers, Monsanto and whatever these guys... They have to come with more organic products, or leaning towards instead of...that way because all the kelp is coming from Finland and I think the humic acid is coming from Holland. So you know it's (makes a gesture meaning expensive). (Jacob)

Here, Jacob clarifies that they can go only so far in terms of committing to organic pesticides, since most are more expensive than regular or mainstream products. He argues that if big companies, such as Monsanto, offered more organic alternatives, they might be able to sell them at lower prices and thus more wineries/vineyards could afford them. As a result, it appears that organizations commit to sourcing organic inputs only until it begins to affect the bottom line. And giving up chemical weed control, which is necessary for achieving "organic" certification, presents its own complications when weeds become intrusive in the vineyard.

In this case, while the vineyard is trying to use the most natural and organic inputs (up to a point, as already mentioned) and the least amount possible of those

substances, these initiatives are mentioned simply as anecdotes: good practices that are implemented only when circumstances are convenient enough to do so. They are not mandated initiatives and they have no foundation in or connection to brand identity or organizational goals.

On the other hand, less conventional winemakers—those exploring the production of organic and natural wines—view themselves as stewards who must protect the land, particularly when they are multi-generational owners of a vineyard or plot.

Our vineyard and our farm have been in the family since the late 1800s and when my family arrived in Canada there were at that time only about 10 Europeans in the whole of the Okanagan Valley. So there's not very many farms that are, and there's probably no other farms that have been in the same family that long in BC, and certainly in the wine industry we're the only ones that have been growing grapes as long as we have and farming the same site. So it's an important value in our family to be able to carry on farming that piece of land, so not only are we trying to protect it from development but at the same time we also understand very well that if we don't look after the site and we don't look after the soil, that we won't have anything to farm, we won't have anything to hand to our children, we would have like a worthless piece of property. (Andrea)

Here, Andrea epitomizes the stewardship and American pastoralist view of the land: a wild land offering European colonizers nature and natural resources (Nash 1967) and the notion of self-reliance that comes from growing and improving the land while being in harmony with nature (Marx 1964). Nonetheless, this view has an inevitable contradiction rising from the tension between wild nature and tamed nature, and the inherent destruction of wilderness involved in the process of cultivating and improving

nature (Cannavò 2001; Press and Arnould 2011). Winemakers like Andrea have acknowledged this destruction and offer alternative grape growing methods as a solution to what conventional farming does to the land:

In my parents' generation, it was fashionable and modern to farm conventionally, and then in my generation we've learned from those mistakes and we also understand that growing wine is a type of product that in our view carries more responsibility to the land. It's not like we're trying to feed the masses by wine growing (...) Farming it organically is more important to us because of that long lasting and helpful soils that we want to keep for generations to come. (Andrea)

Here, she also reflects on the learning process that occurs within the family farming practices, and how past practices (conventional farm methods) are the cause of potential harm to the land that is corrected via alternative/organic farming methods. This addresses the contradiction in cultivating/taming/improving nature by positioning current practices as the cure to the previous generation's "mistakes." At the same time, certain decisions are portrayed as honoring the decisions made in the past, as stated in their website when referring to the choice of vineyard location and varieties planted. This winery is one of the oldest family-owned in the region, starting their first vineyards in the 1920s.

In a related analysis, Jacob talks about the contrast between how things were done before and how things are done now:

We're getting away from the old-fashioned way of farming, like pour it on and who cares, right? You can't do that anymore, like people started caring. And also I grow up with the old fashion guys, fertilizer, use whatever is available on

the market but like pouring all that fertilizer in you know it's going to end somewhere in the water source. (Jacob)

In this case, his winery is also considered one of the oldest family-owned wineries in the region (first vineyards planted in the 1960s). Nevertheless, in none of the other interviews done at this vineyard/winery was there a sense of fixing what was done before or of changing practices. When asked about the lack of participation in the regional winegrowing sustainability program, Tom commented:

Because nobody is buying in. I think there's a lot of old boys in the Valley, these are just totally my own ideas, there's a lot of older people farming still, like the next generation, we're on the cusp of the next generation coming to take over, and these old guys don't want anyone telling them what to do. They've been farming this way for their whole lives and why would they need to change now. You know, this is what I've done for 20 years or 30 years and you don't need to tell me what to do. (Tom)

This perspective can also be extended from specific individuals to wineries that have been using the same procedures for years and have built a brand around family and tradition; in such cases, transitioning to new, more sustainable farming, viticulture, or cellar practices might seem risky or more labour-intensive. Greg, who has worked for his winery for over 20 years, explains that when he started working there, the winery achieved an organic certification but decided to discontinue it:

This winery was originally... when I started working here we were certified organic. But the problem was as we grew and expanded and got bigger and bigger, it wasn't cost-effective anymore because you had a crew of 20 or 30 or 40 or 50 people out hewing in the vines for the weeds and the timing of it was—you couldn't physically manage that amount of land using just people, to

maintain the proper timeline of growing grapes properly right? Because your crew was tied up getting rid of weeds and suckering when they should be leaf plucking. It just didn't work, so they abandoned that, even after they got their certification they abandoned it and went to a, just a low impact farming is basically what they do. . . The quality of fruit was not as good and there was more botrytis and rot and you know...just the quality, I hate to say it because I eat organic, but the quality in as far as grapes go was diminished by growing organic. (Greg)

One winery relies on technology and practical tools to deal with the inconveniences of nature (e.g. weeds, pests) and sees those tools as necessary because of production volume (being a middle-size winery) and a perceived lower quality of grapes; another winery has a smaller production (small sized winery) and has decided to deal with nature's inconveniences in a less technologically and chemically reliant way, by achieving an organic certification.

The challenges that traditional wine makers see with natural wines is their lack of control and, as mentioned before, how poor the wines can be due to lack of proper care. This comes from the need for a consistent product, especially when associated with a quality brand, and even more when referring to higher end subcategories within wine products (sometimes referred to as reserve, platinum, legacy, etc.).

We know which blocks always perform better in general, and you want to keep those performing as best as they can, because they usually end in the high-end wine. So, you know, keeping a consistency between all the vintages and all the blocks is important. You don't want to have good year one year and a bad year the next year based on mistakes you made on the vineyards or on the winery.

(Nancy)

In addition to correcting human error, many winemaking methods are also used to correct undesirable characteristics from a given year's weather and overall environmental conditions. Natural and non-conventional winemaking offers an alternative to this expected consistency by adding excitement and uncertainty in the form of changing characteristics that wines can showcase in each vintage (Goode and Harrop 2011). Some of the winemakers and other wine experts interviewed for this dissertation agreed that natural wines offer an exciting and sometimes experimental approach to winemaking that disrupts the monotony of mainstream/conventional wines' predictable flavours, accompanied by the risk of inconsistent quality from year to year (more on this in the art and sensory chapters).

2.6 Discussion and conclusion

From the materialized and contested regulative, normative, and cultural-cognitive legitimacies, such as the ones that dictate quality within the wine industry, tensions emerge between different ways of interpreting winemaking through mythic and ideological resources. These tensions demonstrate the polarization between a moral protagonist and a villainous antagonist, which is apparent in consumer research studies (Luedicke et al. 2010) and now analyzed through the lens of the producers. These contested legitimacies and the concomitant tensions evidenced through mythic and ideological resources are the foundation of what has been evolving into sustainability-aligned wine movements such as the natural wines movement (Legeron 2014). In an industry like the wine world, with strong market-driving actors such as winemakers and wine cultural intermediaries (Humphreys and Carpenter 2018), this social movement is led by producers.

Figure 1 presents a framework of the tensions and contestations that occur between two extremes of the winemaking spectrum (e.g., conventional and more

industrialized vs natural and artisanal winemaking) and has been developed through analysis of the various discourses that wine producers associated with their winemaking practices when thinking about concepts of sustainability, quality, and nature (or terroir). This framework builds on the one proposed by Luedicke et al. (2010) and expands it to explain how mythic and ideological resources emerge from the producers of market resources (e.g., wine). This is particularly relevant given the role that winemakers (producers) have in making such market resources that are later used by consumers for moralistic identity work (Luedicke et al. 2010).

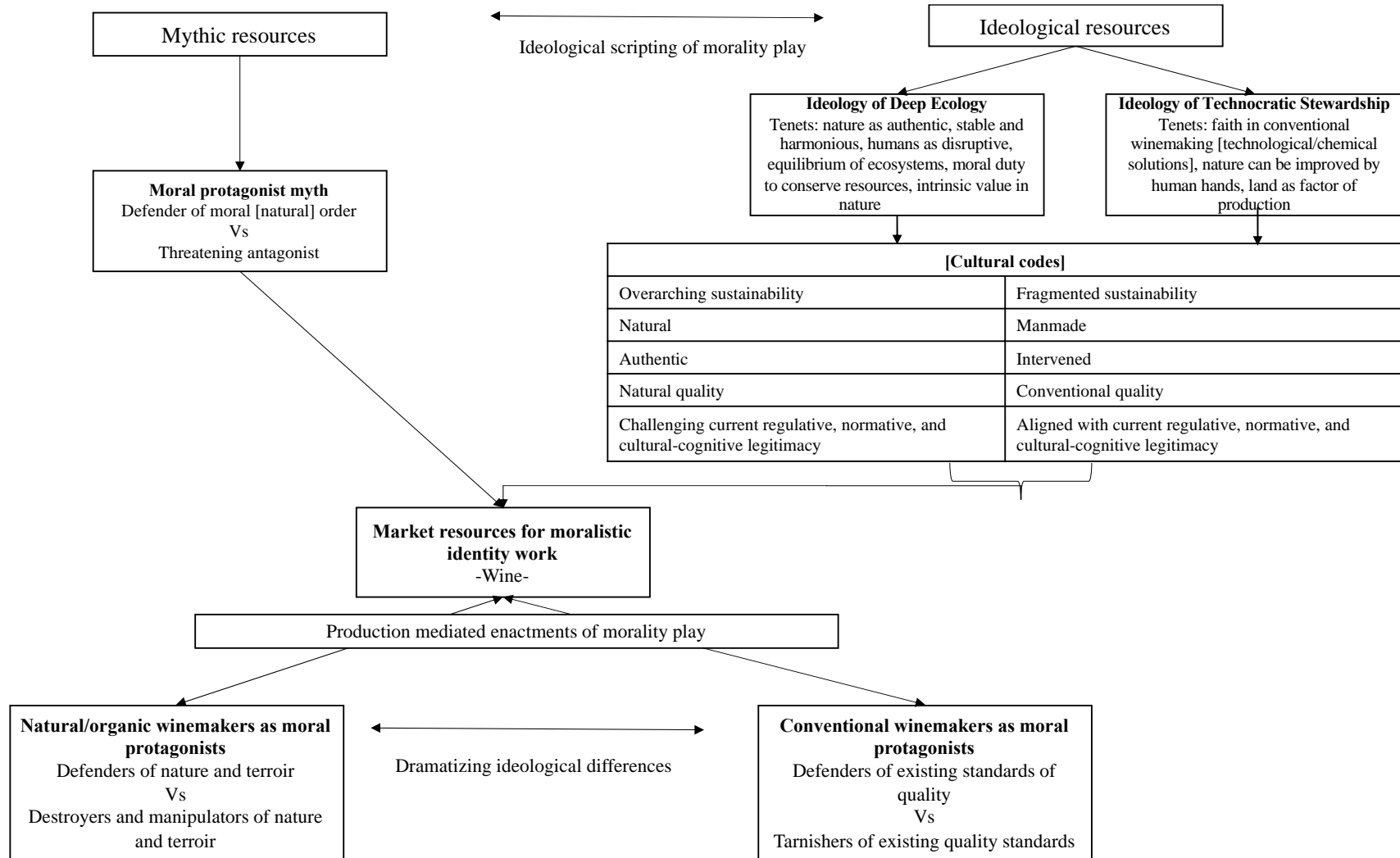
The proposed framework could be interpreted starting at the top, with the mythic or moralizing resources that provide the justification for one being the defender of the moral order, while the other is a threatening antagonist that disrupts this order. On the other side, the ideological resources used to justify one's view of sustainability and contest the opposing side are presented: Deep ecology on one side and Technocratic Stewardship on the other. Each ideological side has a series of tenets that are also informed by cultural codes—elements identified in the research and data analysis. Finally, both sets of resources come together to provide market resources used to create the contested framings of sustainability from both sides of the continuum.

The deep ecology ideology follows a series of tenets that portray nature as authentic, stable, and harmonious without the need of humans intervening. Humans and their interventions in vineyards or cellars (e.g., through the process of pesticide usage or through the addition of enzymes, fining agents, or commercial yeasts in the cellar) are seen as disruptive to the authenticity seen in untouched nature. Deep ecology winemakers see their vineyards as ecosystems that work in harmony not just for the sake of wine growing but for all other ecological processes that happen around the

vineyards. They perceive an intrinsic value in nature, one that needs to be protected and kept in harmony.

On the other hand of the ideological resources, technocratic stewards follow tenets that align with a more anthropocentric view of nature: one where the land is a factor of production and as such it is given for humans to use and improve as needed. As such, these winemakers follow more conventional approaches that allow for various human, chemical, and technological interventions in the vineyard and cellar, such as use of pesticides in the vineyards and addition of commercial yeasts, tannins, enzymes, and other chemical products in the cellar. Figure 1 about here.

Figure 1: Sustainable winemaking mythic and ideologic resources for producer's identity work; model based on Luedicke et al. (2010)



The myth of a moral protagonist, one who defends the moral and natural order of things and opposes an antagonist who threatens to disrupt such order, provides an appropriate characterization of many of the conflicts that were evidenced between two sides of the wine sustainability spectrum. This myth, borrowing from previous narrative (Luedicke et al. 2010), nonetheless requires ideological guidance about the elements that are framed as good or evil and about how morals are defined and defended in a given market context.

The wine producers define sustainability based on their current practices and this can be broadly divided into two extreme categories: those who see nature as valuable in itself, closer to the principles of Deep Ecology, and those who rely on technology for stewardship of the land. The former see nature as an external entity that is disrupted by human intervention. Wine producers closer to this side of the sustainability spectrum advocate for reduction in the use of human-made chemicals and technologies in winemaking, arguing that wine in its purest form, with as little human intervention as possible, is the true reflection of terroir. Many on this side of the spectrum acknowledge their invasion of what was once an untarnished ecosystem and rely on practices such as organic and biodynamic viticulture to redeem themselves and reduce their impact on the land. On the other hand of the sustainability ideological spectrum, wine producers that see themselves as more modern seek to make use of current technological and chemical advances while making sure these fall under the sustainability umbrella. For many of them, these human tools have the potential to improve what nature and a given terroir can provide and sometimes can help in purifying wines from faults that might otherwise tarnish a terroir's true expression. While the Deep Ecology side might advocate for returning to winemaking as it was before the advent of chemical pesticides and fertilizers, or even before Indigenous populations were stripped of their lands, the

Technocratic Stewards would prefer to leave the past behind and move on with new technologies and winemaking methods.

Whereas producers closer to the Deep Ecology ideology have sustainability as a core and overarching concern that is embedded in their wineries, both at the strategic and operational level, wine producers closer to the Technocratic Stewardship side rely on individual initiatives that are realized at an operational but not necessarily a strategic level.






Through the process of analyzing data, it was evidenced that producers closer to the Deep Ecology ideology (e.g., natural, organic, and biodynamic producers) were those who contested the current, institutionalized forms of winemaking and their forms of normative, regulatory, and cultural-cognitive legitimizations. Through this contestation and potential opening of new market niches (e.g., the current expansion of natural wines), new market development benefits from the contestations and conflicts that occur at the producers' level and that sometimes reflect (or perhaps initiate) broader social movements. Thus, this chapter further elucidates how normative and regulatory contestations can disrupt previously shared systems of cultural-cognitive legitimacy and shows that these disruptions can open possibilities for new market development.

Altogether, this framework and its characterizations are fluid and thus producers who start or are currently aligned with one side of the sustainability ideological spectrum can shift and, over time, join the ranks of the other side. Moreover, while one side of the spectrum challenges the current status quo today, as detailed in the art chapter of this dissertation, the future may see the other side of the spectrum—the Technological Stewards—challenge certain legitimized regulatory and normative standards to further a new style of winemaking that does not fit into the prevalent institutionalized norms.

With the argumentation of one's ideological resources—informed and constructed with aligning sets of cultural codes—and through the use of mythic resources, in particular the trope of a moral protagonist, wine producers enact a morality play through the use of wine as the catalyst and central piece. On one side, the advocates of a Deep Ecology ideology (e.g., natural and organic wine producers) see themselves as protectors of nature against destructive practices and manipulations from the other side of the spectrum. On the other hand, Technocratic Stewards (e.g., conventional winemakers) argue they are defenders of wine's quality against a group that has gone too far into a discourse of non-human intervention, to the point of tarnishing wine's potential qualities by rejecting potential improvements.

Finally, by extending this framework to cover a varied spectrum of sustainable producers, as emerged through the data, Figure 2 proposes a sustainability continuum that complements previous conceptualizations of sustainability spectrums (Landrum 2017) by grounding it in a particular context and connecting the extreme and in-between cases with the aforementioned framework of mythic and ideological resources used by producers. Figure 2 about here.

Figure 2: Emergent sustainability continuum

	Understanding and enactment of sustainability	View on nature	Examples of environmental enactments in the vineyard	Examples of environmental enactments in the cellar
 Deep Ecology	Understand the ecosystemic view plus strives to integrate nature as part of the vineyard production; nature is seen as par to humans and thus is less intervened - having a balanced ecosystem that takes little intervention is the goal	Symbiotic relationship with the natural world - no man-made additives are used in the vineyard or cellar; understanding of ecosystemic approach - animals and plants are allowed and promoted to work in tandem to keep a healthy ecosystem	<ul style="list-style-type: none"> Fertilizers: Organic compost, manure, cover crop, fish-fertilizer, biodynamic preparations Pests: Mechanical weeding, mulching, flame weeding / Organic sprays, biodynamic preparations / Preventive leaf removal / promote biodiversity in areas surrounding vineyards, attracting natural predators / Leave extra buds, chickens grazing under vines, sticky tape Ecosystem: Try to get a balanced ecosystem with little intervention / Working with plants and animals as to get no dominant aspect of the land , but a balanced relationship between all. Soil: Use cover crops and manures to help improve soils. Consider ecosystemic aspects in how soils and nutrition are affected. Water: For smaller wineries, there is a learning phase in which each soil is studied to learn about its water capacities and needs. 	<ul style="list-style-type: none"> Energy: Improvements towards sustainable energy sources such as solar and wind technology. Winemaking: Natural yeast and yeast nutrients, organic milk derivatives, bentonite as fining agent, sulphur dioxide under 100 parts per million. / natural wines usually have none of the additives found in the other categories; wild/indigenous yeast is used for fermentation; no sulphite or less than 10 parts per million added . Sanitizing with ozone, steam, citric sulphite Mandatory third party inspections, ISO65 accreditation, trace back to all ingredients and wines, Canadian Food Inspection Agency standards
 Intermediate Deep Ecology	Understand the importance of an ecosystemic view in vineyard management and how the reduction of certain human-created processes can negatively impact this; accept the fact that farming is 'fighting' nature; initiatives look into doing more good (as opposed to less bad) e.g. works in repairing damaged soils	Humans and winegrowing is considered as part of the natural world and thus the operations take external environmental concerns into consideration (plants and animals); no or very little use of human-made products in vineyards; understanding of ecosystemic approach - animals and plants are allowed and promoted to work in tandem to keep a healthy ecosystem		
 Soft Deep Ecology	Some sustainability initiatives go beyond the organizational interests - evidence of concern for systemic/community issues; sporadic initiatives usually look into doing less bad than more good	Nature to be controlled, but in this case with more concern for external environment than the Intermediate Technocratic Stewardship (e.g. using less and organic pesticides)		
 Intermediate Technocratic Stewardship	Meet mandatory requirements to keep operating; sustainability is defined around what few initiatives are implemented by the winery	Nature to be controlled, but in this case with certain concern for external environment (e.g. using less pesticides)	<ul style="list-style-type: none"> Fertilizers: Synthetic fertilizers, non-organic compost Pests: Commercial pesticides / Baits (usually poisonous) Ecosystem: Focus in the vineyard without much consideration of the external and underlying ecosystem Soil: Focused in playing it safe as with pesticide management: commercial and conventional fertilizers are used to improve soil and nutrition Water: Amount of water used by vines is known and controlled; irrigation systems are usually drip systems that allow for more control and less water usage 	<ul style="list-style-type: none"> Energy: Working on reducing energy consumption; this element is very heterogeneous as some conventional wineries might have LEED certified buildings, while others not. Winemaking: Yeasts, yeast nutrient, milk derivatives, tannins, sugar, enzymes, tartaric acid, malic acid, citric acid, various fining agents, and sulphur dioxide in quantities under 350 parts per million. Sanitizing with caustic soda, phosphoric acid Follow Canadian Food Inspection Agency standards, other accreditations and inspections are voluntary
 Technocratic Stewardship	Meet mandatory requirements to keep operating while making sure technology is used as much as possible, without risking being flagged as unsustainable	Nature is seen as external and something that needs to be controlled and dealt with using technology as is available (e.g. use of pesticides, getting rid of most plants and animals that are not considered good for the vines) - nature as a resource to be exploited for humans' benefit		

Moreover, as seen in the emergent sustainability continuum, the boundaries and distinctive initiatives between different levels of the continuum are sometimes hard to mark because they are either constantly shifting as organizations move between them, or because no organization will neatly fit into all the categories of one level but might have characteristics from various levels.

This framework and analysis focus on two extreme sides and interpretations of sustainability: Deep Ecology and Technocratic Stewardship. It has not considered what could be termed “non-sustainable” wine production. While this chapter focused on the nuances and continuum of the term ‘sustainable’, future research could further expand this area of inquiry by contemplating how a ‘non-sustainable’ ideology and production form compares with the ideologies presented in this chapter.

Chapter 3: The sensorial imperative and differences in taste preferences: The case of the wine industry

Abstract

This chapter presents how sensory preferences and quality attributes in wine are constructed, justified, and reflected upon by wine experts. Furthermore, the findings will evidence how taste preferences can be substantially different between distinct groups of wine experts. While wine producers have embraced sustainability in production, what is lacking is a better understanding of how wines' sensorial characteristics are negotiated and rationalized by wine experts and how these processes can impact the advancement of wines with unusual wine sensory profiles (e.g., like many so-called 'sustainable' wines, which could include organic, biodynamic, or 'natural' wines). This is particularly relevant in the case of industries, like the wine industry, that rely on cultural and taste influencers that have an important role in the construction of marketplace taste preferences. For the purpose of this chapter, sustainable wines are those that are produced with a minimum of human intervention (in both the vineyard and cellar) and with a strategic and overarching focus on environmental practices. What will be referred to as the 'sensorial imperative', i.e., the need for a sensorially pleasing product in the wine industry, can be either an enabler or a hindering element for the furthering of sustainable wines. This chapter provides evidence that wines with differing and unusual sensorial characteristics can be appreciated differently depending on the context and background of each taster. Thus, depending on the location of a wine region and where wine experts are coming from, certain wines—e.g., natural wines that might show more sensorial differences compared to other mainstream wines—might be less accepted where there is no space for variation from a set standard of taste and quality. This finding can be

relevant to the development of wines with unusual sensorial characteristics (e.g., natural wines) and it could provide a rationale for deciding where to explore and expand the wine sustainability movement.

3.1 Introduction

What do sensory experiences and taste preferences have to do with sustainability? Throughout this chapter, it will be evidenced that in the case of a hedonic product such as wine, sensorial characteristics can either enable or hinder the development of sustainable practices. The broader research questions for this chapter are: How are wine sensory taste preferences constructed, justified, and rationalized by wine experts? And how can these preferences influence the potential development of wines with unusual sensory characteristics? In particular, can this be an obstacle for the further development of sustainable wines? (Sustainable wines will be considered as those that are produced with a minimum of human intervention (in both the vineyard and cellar) and with a focus on environmental practices and which, because of this, can have sensory characteristics that fall outside the industry-legitimized norms—as described in Chapter 2). Finally, are there differences in how distinct groups of wine experts assess wine sensory characteristics and quality? And if so, what are these differences and what is the implication for wines with differing sensorial characteristics (e.g., like sustainable or natural wines)?

There are three main pieces that provide the arguments and findings of this chapter: (1) the concept and the role of expertise and knowledge in the wine world in regards to sensory assessments, (2) the elements of a wine region's taste culture and how these can dictate the promotion and eventual success or failure of a wine, and (3) the rationale and comparison of taste preferences between different types of wine experts.

The first two pieces provide evidence to answer the research questions about taste and sensory preference formation from wine experts' and cultural intermediaries' perspective—central stakeholders in a market-driving industry like wine, largely influenced by key winemakers and experts more than by regular consumers or the market (Humphreys and Carpenter 2018). The final piece provides further evidence on how these taste and sensory preferences are constructed and goes a step further by identifying the differences between distinct groups of wine experts. This is relevant because it will provide the data and supporting evidence for considering certain wine markets more (or less) open to the consumption of wines with unusual sensorial characteristics, such as sustainable and natural wines. These concepts are particularly relevant in the case of sustainable wine because success in the wine industry is dictated by the perceived quality and sensorial characteristics of wines, which, at the same time, can be driven by cultural intermediaries and wine experts such as sommeliers, wine critics, writers, and educators (Goode and Harrop 2011; Humphreys and Carpenter 2018; Smith Maguire 2018a). Thus, in spite of the amount of effort and communication of the benefits of sustainable winemaking and viticulture practices, a wine positioned as sustainable but with no perceived sensory quality will most likely not succeed in the market; although a wine consumer might have a negative association when thinking about organic or sustainable wines (Jones 2017; Jones and Grandjean 2017), this predisposition could be altered by the influence that wine experts and cultural intermediaries have in the wine industry (Humphreys and Carpenter 2018). Thus, as will be evidenced in this chapter, having consumers informed by different regional wine experts (and their unique wine preferences) can make a difference in how the broader wine market receives a new and

unusual wine offering such as those coming from the hands of the natural wine movement (Goode and Harrop 2011; Legeron 2014).

Moreover, as will be shown and argued in the following chapter, the assessment of a wine being of a specific sensory quality is far from an objective and singular judgement. Even when using tested and reliable sensory measurements, the same wine can be assessed as a high quality wine for some and a low quality wine for others. This is relevant for wine niches such as natural wines as these are wines that have been criticized for their distinctive sensory profile that many times goes against the established norms or is perceived as faulty (Goode and Harrop 2011; Legeron 2014).

One of the strongest criticisms of alternative winemaking methods (e.g., natural wines) is the risk of compromising quality and sensorial characteristics due to less interventionist winemaking approaches (Goode and Harrop 2011; Smith Maguire 2018a).

This dissertation chapter is comprised of three studies, each tied to the three aforementioned key arguments and pieces for the chapter:

- Study #1: Understanding the definition of wine expertise and the role of wine experts
- Study # 2: Exploring the elements of taste and sensorial preferences in a group of wine experts
- Study #3: Comparing the taste preferences and assessments of distinct wine experts

As described earlier, each of these studies (the aforementioned pieces (1), (2), and (3) of this chapter) will provide unique evidence to answer this chapter's research questions. The main findings of these studies are published in the form of peer-reviewed

papers and book chapters. Most of the data and pieces have been adapted for this chapter, and the overarching contribution (considering the three studies in one chapter) is framed for the first time at the end of this chapter. Finally, these studies focus on conventional wines from different regions and winemaking approaches to compare the sensorial assessments of wines that are somewhat similar (e.g., all from the same varietal for study # 2) but that still show differences in the way that experts assess them. The wines were selected based on the needs of each of the individual projects; for this current chapter, this selection made sense for keeping the focus on the subtle sensorial differences that occur when tasting conventional wines, which would likely be exacerbated when tasting a wine with marked sensorial differences, such as noted when tasting natural wines next to conventional wines (Black 2013; Goode and Harrop 2011; Smith Maguire 2018a). Since the participants in all studies were wine experts, the selection of conventional wines also made sense in order to ensure there was no bias towards the sustainable wines (Wiedmann et al. 2014) in the scenario where they identified a wine as organic/biodynamic/natural/sustainable.

This chapter's literature review will follow and provide an overview of what it means to be an expert in the wine world, as well as a context for and philosophical considerations of sensory assessments. Considering that this dissertation chapter is different than the other two (in that it has a more experimental and empirical approach), the literature provided here serves as a starting point and justification for the analysis and methods implemented for this chapter, while providing the context from which the contributions of this chapter build up (i.e., contributing and adding to the concept of wine

expertise and furthering the understanding of what sensory assessments imply for a product like wine).

3.2 (Tasting) Expertise in the wine world

Ericsson et al. (2007) argue that expertise must lead to a performance that is usually superior to that of the experts' peers; it must produce concrete results, e.g., a professional tennis player must consistently win matches to continue advancing in the rankings, and it must be replicable and should be measurable in controlled conditions, such as in a lab. True experts, the authors argue, deliberately practice and think. The results of this can be measured and replicated. On the other hand, wine expertise is not limited to only the analytic expertise that Ericsson et al. (2007) or Lesschaeve (2007) detail, but can also be understood through different approaches such as the holistic stage (one that comprises the use of imagery, non-verbal elements, and narrative) that follows the analytic one, as described by Latour and Deighton (2019).

Purposeful practice of this kind can be grouped into two categories of learning: developing and enhancing skills, and expanding the sphere of those skills. The concentration needed for these sorts of tasks reduces the time available for doing them, so development of expertise in any field takes time. In such context, the observations from Ericsson et al. (2007) mirror Merleau-Ponty's (1962) theorizations around skills acquisition. Both Masters of Wine and wine sensory evaluators become experts after time practicing and developing their skills, though some background differences might make this path to expertise shorter or longer (e.g., some Masters of Wine may be previously trained winemakers and thus have a solid background in wine tasting and analysis).

Winemakers must periodically and consistently taste the wines they make in order to determine how the product evolves through the winemaking process. Most of these winemakers have some sort of enological training or similar background that provides them with the ability to detect faults in wines (as per their senses and following the guidelines they have been trained with). In this way, they are responsible for guiding the process and following guidance from established wine styles in making their wines. A winemaker's foremost responsibility is creating products that have consistently high quality and thereby represent their winery and region of origin in a positive light, but as Peynaud (1996) argues, tasting expertise usually involves detecting wine faults, so it is also a necessary part of the quality control process. There is often an expectation, usually at mid- to large-sized wineries, that a winemaker should be skilled and knowledgeable enough in their craft to create unique wine styles tailored for particular markets.

Sommeliers, wine judges, critics, and writers are regarded by their peers, and by the general public, as experts who understand viticultural and winemaking practices. These experts can be seen as those that have bridged the gap between perceptual and conceptual knowledge as posited by Latour and Latour (2010): they have gone beyond the aficionado's regular consumption of wine and by using sensory vocabulary to interpret wine experiences, they pair the perceptual and conceptual knowledges, thus learning and improving their expertise. Among the masses, this label may be applied to anyone with enough expertise to help them make an informed wine-buying decision (Lesschaeve 2007). Those seeking advice from Robert Parker Jr., for instance, known internationally for his assessment of wines, accept his appraisals without question. He has a supposed neutrality when evaluating wines, given that he has no conflict of interest (no connections

with wineries or winemakers). As a result, he is considered an independent and unbiased wine judge, although he has admitted that a given wine might get a 96 instead of a 95 depending on his mood at the moment of the tasting. Altogether, he is considered by many as a more consumer-oriented than industry-oriented wine expert (Kirby 2015).

In order to obtain the title of ‘expert’, one needs to have extensive training and experience in a product category so as to be able to draw conclusions, using one’s perceptual judgment, about the effects of variations in raw materials, processing, aging, and other factors in the overall quality of the product (Lesschaeve 2007). Masters of Wine, sommeliers, wine critics, and wine writers can share knowledge about wines and can have an important impact on what consumers think is a good or bad wine, winery, and winemaker; this role is similar to that of art critics and museum curators, who also shape public opinion on art and share their deep knowledge of specific artists and periods of work.

On the other hand, wine sensory assessors can be individuals with “a high degree of sensory acuity who have experience in the test procedure and established ability to make consistent and repeatable sensory assessments” (Lesschaeve 2007, p. 253). These expert wine sensory assessors can identify aromas and flavors associated with specific wine varieties and are knowledgeable about current global viticultural and winemaking practices. Overall, novices and the general public describe wines in a very different manner than wine experts such as Masters of Wine, sommeliers, wine critics, or wine sensory assessors (Charters, Lockshin, and Unwin 2000).

While sensory assessors may not have the breadth of general wine knowledge that other wine experts have (e.g., Masters of Wine or wine critics), they can exhibit superior

sensory discernment. Overall, a wine sensory assessor is considered a type of wine expert, but not all wine experts are sensory assessors. Thus, for sensory panels and testing the quality and sensory characteristics of products like wine, sensory assessors are usually hired because of their training in assessing specific sensory attributes (often across product categories). Unlike wine experts whose area of expertise is wine, sensory assessors focus instead on the consistency and replicability of their panels and assessment sessions (Lesschaeve 2007). Some wineries hire wine experts to ensure the production of good quality and fault-free wines. Sensory assessments can bring complementary information to the traditional wine tastings usually conducted by wine experts (Yegge and Noble 2001).

Winemakers could be seen as another layer of wine experts. Many winemakers have enology degrees and most have various years of experience working in wine cellars and/or vineyards, sometimes shadowing and learning directly from well-established winemakers (and occasionally having worked in more than one wine region in the world). In spite of this expertise and knowledge, winemakers can suffer from what is colloquially known as ‘cellar palate’. This is what happens when a winemaker becomes too accustomed to their own wines (or to those of their region), resulting in their palate (and/or taste) adapting to the unique characteristics from their wines or their region’s wines (Robinson 2007). For instance, a winemaker with over-exposure to their own wines (or their regional wines) might no longer detect and recognize taints and off-flavors that others might be able to detect.

3.3 Sensory assessments of wine

Having clarified the role that wine experts play in judging the sensorial features and quality of wines, this section will now examine how wine sensory assessments are defined in the literature. This literature will also inform the methods used for this chapter of the dissertation.

The science of sensory assessment involves eliciting, assessing, and interpreting responses to sensory input (Lesschaeve 2007), according to protocols that ensure as little physical or psychological bias as possible (Lawless and Heymann 1998). In this context, sensory assessors work under the expectation that their results will be as consistently accurate and repeatable as those of any other scientific measuring device. Given this high standard, individuals are selected for this role based on their sensory acumen and on specialized training (Issanchou, Schlich, and Lesschaeve 1997), approximately 20 hours to start, that equips them to identify and objectively assess the wine characteristics in question.

According to Lesschaeve (2007), the validity and reliability of sensory panels can only be assured if the performance of each individual, and of the group collectively, is measured by a sensory analyst with training in correct methodology and assessment of control samples. On an individual basis, validity is measured by comparing the correctness of one's responses to others on the panel and applying a corresponding weighted score or percentage. When measuring the validity of the collective group, its cumulative responses are compared to data from other sensory tests. At both the individual and the collective level, reliability is determined by repeating the test, employing a duplicate test sample, or through a blind control approach.

Lesschaeve (2007) also insists that wineries employing sensory assessments must provide an enclosed space (either a room or a single-person booth) that protects the occupant(s) from outside smells, sounds, and visual distractions. This ensures optimal conditions for an accurate evaluation, which the assessor(s) can record on a provided questionnaire. In selecting their assessors, wineries may screen according to candidates' sensory acuity and ability to recognize aromas and faults in wine, as well as their desire to be on a panel and their general availability.

In selecting an external panel, the same screening criteria would apply. Other requirements could include comprehensive training and the use of duplicate sample assessments to monitor performance over time. Sensory tests are carried out on a set of predetermined descriptors, indicating difference, ranking, sorting tasks, and descriptive analysis. A full sensory profile is included as part of the descriptive analysis, and statistical analyses can be used to perform a quantitative analysis on the sensorial assessment. In either case, the process may be outsourced or a specialized analyst may be consulted if a more complex analysis is required. In the case of a panel, a minimum of one sensory specialist must be included to analyze data and ensure training sessions are carried out appropriately. The presence of a lab assistant is also helpful in preparing samples.

Although panelists should undertake the testing “blind,” having no details about the wine and without conferring with other tasters, Hodgson (2008) noted that few, if any, panelists are able to consistently reproduce their own choices.

Borrowing from numerous disciplines, sensory evaluations may apply various methods when analyzing particular sensory elements. Tuorila and Monteleone (2009, p.

54) point out that sensory food science “utilizes physicochemical, physiological and consumer-based research methods,” depending on the research question at hand.

It is important to acknowledge, in this context, the idea of sensory evaluation as a “scientifically sound” method of assessment. In the latter half of the previous century, measurement techniques evolved to include human beings as capable information-gathering tools (Meiselman and Schutz 2003). While Tuorila and Monteleone (2009) propose that scientific research produces robust data that can help advance the field of food science and inform food-related decision-making, Lesschaeve's (2007) contends that consumers may not be able to articulate what they like or dislike about new products, beyond responding to the sensory qualities of those products: their colour, flavour, texture, and aroma. For new products to succeed in the wine market, she recommends that alongside the sensory attributes of the wines themselves, the sociological, psychological, and economic factors influencing consumer buying behaviour and wine preferences should also be taken into account. Historically, the use of the scientific method in industrial food production has led to an understanding of food solely in a lab context, separate from its socio-cultural origins and influences. By assuming that its context is interchangeable—or even irrelevant—food is reduced to simply organic material, with no more relationship to cultural or social factors than a map, an equation, or a chemical compound (Lahne 2016). But the relationship between humans and the food and drink they consume is directly influenced by the individual, social, and cultural frameworks in which they exist. Despite the methodologies of food science that are based on an anthropocentric belief in the human ability to modify the surrounding world, wine has demonstrated its ability to evolve without human intervention and irrespective of our

interaction with it. This point is further clarified by examining the features and limitations of the anthropomorphism inherent in wine assessment (Ingold 2000a).

As Martens (1999) points out, humans come to understand the external world through their senses, which both passively receive and proactively engage with the stimuli they encounter. That sensory information then becomes the framework through which the world is described. Describing a wine as “faulty,” however, assumes first that there is an established norm, and then that the wine deviates from it. One makes this determination as an observer, taking a third-person perspective. Martens (1999) also notes that in experiencing the world, one often takes that third-person perspective in observing oneself. Ultimately, one is always limited to the experience of one’s own taste. While there may be agreement on the general characteristics of an object—the colour and shape of cilantro, for instance—assessments of taste can range from pleasantly flavourful to disturbingly soap-like.

In addition to skepticism from the technological and natural/social science communities regarding the reliability, relevance, robustness, and economy of sensory methods, questions of subjectivity also arise when validating their results. As Martens (1999) notes,

“We sense the product, and we sense ourselves with respect to the product. With what right do we say that an apple is sweet? A realist would say it is sweet because it is valid by statistical significance tests of objective sensory data. A phenomenalist would say the apple is sweet because the word “sweet” gives meaning to my subjective experience in the given context, and the pragmatist would say it is sweet as understood by the involved partners for a given purpose” (p. 242).

Relying on Merleau-Ponty's (1962) phenomenology and the hermeneutical understanding of the relationship between the part and the whole (Thompson 1997), Martens (1999) ponders the extent to which the senses can be relied upon as a source of understanding of the world. In Merleau-Ponty's (1962) view, the world is understood through a virtual sensorial process where, as each sense comes into focus, the others are quasi-present but can be employed to help understand stimuli in the moment. In the context of art, Joy and Sherry Jr. (2003) refer to this as the zoom-lens effect. Merleau-Ponty (1962) sees the virtual body as a component of embodied existence, allowing for alternative perspectives of the body and an ability to reshape it. Perception means engaging with receding backgrounds and appearing foregrounds (Steeves 2001). To see and object, the object must be synthesized through one's body (Merleau-Ponty 1962), in addition to having a background of sensation (Steeves 2001).

From an existential phenomenological point of view, experience goes beyond the response patterns and cognitive structures (such as those studied in much of the sensory discipline, grounded in logical positivism) (Thompson, Locander, and Pollio 1989). While logical positivism focuses on verification and replicability, existential phenomenology seeks personal descriptions of lived experience – a more subjective approach; nonetheless, both logical positivism and existential phenomenology (each with differing methodological and ontological approaches) have a commitment of conducting rigorous empirical research (Ibid).

Lahne (2016) states that within the sensory discipline, emphasis is placed on the replicability of results that is inherent in the scientific method. While this is appropriate for industrial food manufacturing, where “workmanship of certainty” (Paxson 2013) is

the driving ideology, it is out of place in artisanal food production, which operates within a “workmanship of risk.” In artisanal food creation, quality is not predetermined or guaranteed but relies on the craft and care of the artisan (Lahne 2016), in each instance of creating. The uniqueness of artisanal food production, the slight variation in each product, is exactly what makes it valuable. Our ability to identify tastes is developed through our own experience of them, through the observed experiences of others, and through comparisons of the two (Lahne and Trubek 2014; Shapin 2012); Lahne (2016) points out that in this context, socialization and shared culture play a central role in how we learn to taste. The sensory discipline, by comparison, focuses on methodologies that will lead to consistently and successfully meeting consumers’ sensory expectations, which should, in turn, lead to greater business success (Lawless and Heymann 1998).

3.4 Data and methods

This dissertation chapter, as mentioned before, is comprised of one published paper and two peer-reviewed book chapters, and so three methods, each used for each of the studies (two of which are based in the same methodological approach), will be detailed. Altogether, this chapter follows a mixed methods approach, where quantitative and qualitative methods are combined and complement each other. Thus, answers to research questions are evidenced by integrating inferences from both the qualitative and quantitative methods. The first approach focuses on phenomenological and qualitative methods of research that complement the statistical and quantitative methods used for the second and third studies. Each study focuses on a topic of wine sensory assessments, and although there is not a specific connection between the sensorial analyses and the sustainability practices that each winery implements for their wines (all wineries used for

this chapter could be considered to align with the ‘technocratic stewardship’ side of the sustainability continuum described in Chapter 2), the implications of the sensorial imperative as described in this chapter will be further discussed as it applies to sustainable/alternative winemaking approaches.

3.4.1 Methods for first study – qualitative research approach

The first study uses interviews, following McCracken's (1988) approach, with participants associated with seven wineries in the Okanagan Valley wine region in Canada, where the majority are of medium and small size. Of the participating wineries, three of these are medium sized and four are small. The participants were recruited through a snowballing technique where a first set of informants recommended other potential participants (Belk et al. 2013). A sensory panel coordinator in the area was also interviewed, as well as a Master of Wine (outside of Canada).

Marketing directors or winemakers in each of the seven wineries were interviewed. In some instances, two interviews were conducted. Each interview took 1-2 hours. At first, general questions about participants' backgrounds and work history were asked and then questions about the concept of wine expertise (Belk et al. 2013; Spiggle 1994; Thompson et al. 1989). The interviews followed a phenomenological interview approach (Thompson et al. 1989), for which the goal is to get a first-person description of specific experiences. Thus, interviews followed a more conversational approach instead of a traditional/structured question-and-answer interview. Ethnographic procedures were used to analyze the data (Arnould and Wallendorf 1994), with themes emerging from the data and not from predefined assumptions (Charmaz 2001). For this chapter, only details

about participants' opinions of sensory panels (and in particular as strategic tools in a winery) are provided.

3.4.2 Methods for second study – quantitative research approach

Table 3 lists details of the ten merlot wines that were sampled in study #2. In addition to nine merlot wines from the Okanagan Valley in Canada, one American merlot was included to provide a comparison of sensory characteristics in wines from different geographical locations. A variety of vintages were selected, and wines were chosen according to their availability. Two bottles of each were purchased, and winery names were omitted from the table in order to preserve confidentiality, given that most come from the Okanagan Valley, a small wine region where many winemakers know each other.

Table 3: Merlot wines from study #2

Wine #	Vintage	Region	Alc%	Price (CAD)	Examples of winery taste descriptors
1	2013	Okanagan Valley - Golden Mile	13.8	\$19	Plum, cherry, malt, sage, mocha, plum, alfalfa, dark chocolate.
2	2013	Okanagan Valley - Naramata Bench	14	\$19	Cassis, coffee, cherry, plum, dark chocolate.
3	2013	Okanagan Valley - Oliver	14	\$17.5	Dark plum, cherry, smoke, oak, spice, cedar chest, black tea.
4	2011	Okanagan Valley - Skaha Lake	14.2	\$35	Dark plums, red fruit, chocolate, fig, violets.
5	2014	Okanagan Valley - Golden Mile	13.9	\$14	Black cherry, plum, cassis, spice notes.
6	2012	Okanagan Valley - Center	14.2	\$17.5	Blackberry, blackcurrant, violet, cedar, vanilla, chocolate.
7	2012	Columbia Valley, USA	13.5	USD\$17	Chocolate and dark cherries.
8	2012	Okanagan Valley - Naramata Bench	14.5	\$20	Blackberry, raspberry, sage.
9	2013	Okanagan Valley - Golden Mile	14	\$17.5	Plum, berry, milk chocolate, dried fig, blueberry, vanilla.
10	2013	Okanagan Valley - Oliver + Osoyoos	14	\$16	Plum, blackberry, cedar, fig.

The study's panel of assessors included six individuals who had professional involvement in local and international wine industries. All held either a degree in enology or a Wine & Spirit Education Trust (WSET) Level 3 diploma, and all had previously rated wines using an attribute scale.

For this study, all of the panelists assessed each of the ten wines using a descriptive analysis methodology adapted from Guinard (2006), evaluating seven aroma characteristics and eight taste and flavour characteristics. The tasters were given a predefined list of red wine sensory attributes, which they were already familiar with, and

they were given no additional training on the sensory attributes before carrying out the evaluations. In addition, the panelists evaluated the wines' overall quality using an assessment grid that borrowed from a 20-point scoring protocol developed in 1959 at the University of California, Davis (Noble 1995). The assessments were blind, with no mention of brand names or specific varietals, and were based on sensory perceptions only.

Each wine was assessed twice (each tasting session was run in the same room and simultaneously), though timing of the tastings was not consistent among all panelists due to scheduling constraints. Three of the assessors did their first tastings on one day, then completed the second tasting about two weeks later. The other three assessors had no choice but to do both tastings on the same day. For both groups, the wines were served in ISO glasses and identified only by a unique 3-digit code. The order of presentation between the first tasting and the second was also randomized to avoid noticeable contrast effects. Because the samples were uniform in size and overall appearance, they were presented for evaluation all at once rather than using Lawless and Heymann's (1998) monadic sequence. Immediately after being poured into their glasses, the room-temperature wines were each covered with a petri dish and left to rest for about half an hour before the tastings began. The order of evaluation methods was orthonasal olfaction first, then tasting, then expectoration. Between samples, panelists were given salted crackers and water to cleanse their palates. All tastings were conducted at Okanagan College's BC Wine Sensory Lab in Penticton.

The wine assessments were done using linear scales for wine aroma and taste/flavor descriptors (included in **Appendix A**), and quality assessment using UC

Davis's adapted 20-point scale (included in **Appendix B**). The descriptive analysis was comprised of aroma characteristics, including "vegetative," "vegetal," "berry," "green bell pepper," "cassis," "spicy," and "oak"; flavour characteristics, including "berry," "oak," and "bitterness"; and other sensory characteristics, including "astringency," "acidity," "mouth-feel," "length of finish," and "balance." For each wine, the panelists were also asked to assign a score for individual features—colour and appearance, aroma, defects and faults, residual sugar – bitterness/acidity, mouth-feel and body, flavour, astringency, length of finish and balance, and overall quality—with those scores being totalled to produce an overall quality ranking out of a possible 20.

A statistical evaluation using 3-factor analysis of variance (Balanced ANOVA) was performed on the descriptive analysis; judge, wine, and replication were used as main effects, and judge*wine, judge*replication, and wine*replication were used as interaction effects (Minitab 16, Kivuto, Ottawa, Canada). The significant sensory attributes that resulted from the ANOVA procedure were also used as input for a principal component analysis (PCA). Fisher's Least Significant Difference (LSD) test was applied to achieve mean differentiation for all the sampled wines.

To develop a more complete picture of the testing outcomes, panelists were asked to provide additional comments on the sampled wines and their attributes. Their statements provided complementary information to the statistical analysis and helped flesh out the study's conclusions. Some of these comments are included and analyzed in the findings section of this chapter.

3.4.3 Methods for third study – quantitative research approach

The method for the third part of this chapter was based on the research method used for the previous section. In this case, the two panels used in this research consisted of wine experts (i.e., individuals with wine-related experience and education) who were influencers in their geographic area. Two tasting locations were selected: the Okanagan Valley in British Columbia and Montreal in Quebec, both in Canada. British Columbia is a well-known Canadian wine growing region whereas Quebec has an important number of wine drinkers; in 2013, Quebec was the Canadian province that drank the most red wine per capita, while British Columbia (BC) took the title for white wines (Montreal Gazette 2015). The selection of these two provinces also makes an interesting comparison considering the heavy historical influence of two different European socio-cultural traditions in each location—British and French (Sharpton 2012). Furthermore, each set of panelists has a different type of training: whereas in the Okanagan the experts lean towards WSET training, in Montreal the experts prefer the sommelier road. Mirroring the socio-cultural differences between the two provinces, WSET training originated in 1969 in the UK (Wine & Spirit Education Trust 2018), while l'Union des Sommeliers de Paris, the world's oldest sommelier association, originated in 1907 in France (Association des Sommeliers de Paris n.d.).

Recruitment relied on snowball sampling, helping to deal with the time restrictions of participants. The training and expertise of participants within each location were similar, but different from the training and background of participants from the other location. Table 4 details the type of training and expertise that each participant had, differentiated by location. Participant names were omitted to maintain confidentiality.

Table 4: Participants from study #3

Panelist #	Location	Expertise/Training
1a	Okanagan	WSET level 3 - VQA panelist
2a	Okanagan	Master of enology - instructor and winemaker
3a	Okanagan	Winemaker
4a	Okanagan	Master of enology - winemaker
5a	Okanagan	Enology degree - sensory scientist and winemaker
6a	Okanagan	Winemaker
7a	Okanagan	VQA panel assessor - liquor store wine consultant
8a	Okanagan	WSET level 3 - winery employee
9a	Okanagan	WEST level 3 - instructor
10a	Okanagan	Winemaker
11a	Okanagan	Sensory scientist - VQA panel assessor
12a	Okanagan	Enology degree/sensory scientist (wine) - wine consultant
13a	Okanagan	WSET level 3 - winery employee
14a	Okanagan	Master of Wine candidate - winery employee
1b	Montreal	Sommelier - retired wine educator
2b	Montreal	Wine consultant/educator
3b	Montreal	Wine writer
4b	Montreal	Wine journalist & sommelier
5b	Montreal	Master sommelier
6b	Montreal	Wine journalist
7b	Montreal	Wine journalist/wine educator
8b	Montreal	Sommelier-conseil, wine journalist

Two sessions were implemented for each location (each tasting session was implemented in the same room and simultaneously), with seven wines sampled in each session. In both locations, tasting sessions were run about one month apart: June and July, 2017 in the Okanagan; January and February, 2018 in Montreal. Table 5 summarizes some key details about the wines selected for this third study, chosen to have a sample

representative of various types of red wine styles and vintages. Wine selection was also based on what was locally available for purchase in sufficient amounts for all tasting sessions and participants, while trying to keep a broad spectrum of different red wine styles and vintages. A new bottle was opened for each of the four tasting sessions implemented at each location.

Table 5: Wines from study # 3

Wine #	Wine Name	Vintage	Varietal	Region	Sweetness	Alc %	Price
1	Carinena Reserva-Monasterio De Las Vinas	2006	Red Blend-Garnacha, Tempranillo, Carinena	Spain North	0	13%	\$14.5
2	Jackson Triggs - Reserve Merlot	2014	Merlot	Okanagan, BC, Canada	0	14%	\$14
3	Gray Monk Pinot Noir	2015	Pinot Noir	Okanagan, BC, Canada	0	12.7 %	\$18
4	30 Mile Shiraz	2014	Syrah/Shiraz	South Eastern Australia	0	14.5 %	\$14
5	Apothic Red	2015	Red Blend - Zinfandel, Syrah, Cabernet Sauvignon, Merlot	California, USA	2	13.5 %	\$15.5
6	Road 13 Honest John Red	2014	Red Blend - Merlot, Pinot Noir, Gamay Noir	Okanagan, BC, Canada	0	14.9 %	\$20
7	Cahors-Chateau Eugenie Tradition	2015	Red Blend - Malbec (80%), Merlot (20%)	Southwest France	0	12.5 %	\$23

Participants assessed each wine for nine taste/flavor and seven aroma attributes, as per Guinard's (2006) method. A pre-defined list of red wine sensory attributes, well

understood by all tasters, was used. The panels received no training on the sensory attributes prior to the evaluations.

The panels also assessed the overall quality of the seven wines using a quality assessment grid based on a 20-point scoring sheet adapted from the University of California at Davis in 1959 (Noble 1995). Since these evaluations were conducted blind, the assessments were based only on sensory perceptions, free of brand bias or any previous experience with certain wine varieties.

Both panels assessed each wine twice. The wines were coded with unique 3-digit codes and presented in ISO glasses to the panelists, who knew only that they were tasting red wine. In order to avoid contrast effects that could impact sensory perception, participants tasted the wines in random order.

Following the recommendations of Lawless & Heymann (1998), all wines were served at once. All samples were evaluated in one tasting session since the servings and appearance were very similar. Approximately 30 minutes before the tastings took place, wines were served at room temperature and glasses were covered while the participants arrived for the tasting. Samples were smelled, sipped, and then expectorated. Water and salt crackers were available for participants to rinse their palates between wines.

3.5 Findings: Wine experts' sensorial preferences – and what this means for non-conventional winemaking

The findings of the preliminary/exploratory study on exploring the concept and role of expertise and knowledge in the wine world will be presented first (in addition to what was already presented in the literature review section of this chapter). With this contextual understanding, the findings of study #2 will follow, in which the wine sensorial assessment of a group of local wine experts is showed to evidence the sensorial

requirements that can dictate the success or failure of wine in a given market. Then, a concluding segment follows with the findings from study #3, showing how despite the use of tested and reliable sensorial assessment methods, distinct groups of wine experts (i.e., from different wine regions and wine traditions) can evaluate the same wines in different ways. These findings have a broader implication for any winemaking approaches that cross the lines of institutionalized and conventional practices: if wine experts are trained and come from a background that values the institutionally-aligned sensorial characteristics of wine, then it will be harder for non-conventional wines to be positively assessed by these experts. A caveat for this implication will be seen in study #3, where it was shown that there might be more openness for certain non-conventional wine characteristics in some groups of wine experts than in others.

3.5.1 Study #1: Differences between wine experts: Science and artistry informing expertise

Considering the relevance of wine experts in an industry such as wine (Humphreys and Carpenter 2018), this study adds nuance to the definition and characterization of a wine expert. One product of this research was an understanding and appreciation for the valuable roles that creators and assessors of wine both play in the industry. Winemakers, especially those who create award-winning vintages, are respected and admired for their artistry. Likewise, individuals who earn the ‘Master of Wine’ title do so through significant dedication and effort, as evidenced by the fact that there are only about 350 such people worldwide (The Institute of Masters of Wine 2017). These exclusive groups, and other experts such as sommeliers and wine critics, represent the highest levels of curatorial skill in the wine world.

Distinct from the above-mentioned superstars are sensory panelists, whose sensory acuity is expert but who represent a different form of mastery in the area of wine assessment. Their training and skill is in accurately evaluating wines' sensory characteristics (Croijmans and Majid 2016), irrespective of how much they know about the wine world at large. And while both winemakers and Masters of Wine are similarly skilled in determining a wine's sensory attributes, a sensory panelist is free from any personal or financial stake in the assessment. Panelists performing assessments for British Columbia's Vintners Quality Alliance (BCVQA), for instance, simply evaluate the merits and faults of the wines they taste with no vested interest in the outcome.

These two groups, then, each play a vital role in the wine industry while occupying separate and distinct spaces. Where panelists work from a place of scientific training and objective assessment of wines' sensory characteristics, winemakers focus on the creative artistry need to produce uniquely exceptional wines, with science acting as a foundational backdrop. To this latter group, sommeliers and Masters of Wine provide their knowledge of wines and wineries to ensure products are created that will ultimately be successful.

Below, the role of sensory panels in small and medium-sized wineries is explained, according to regional winery classifications:

Small Winery # 1

In this case, the owner is also the winemaker. He or she has business training rather than enology training, and on occasion they invite an established winemaker to develop wines on the brand's behalf. While their product line includes proven varieties

that have sold well in the past, they also employ focus groups to determine and then satisfy the tastes of their buyers when creating new varieties.

In the absence of training as a winemaker, the owner has instead succeeded through trial and error. The focus is on attracting new customers and retaining existing ones, so the limited financial resources are spent on good marketing rather than on 3rd-party wine assessors. The compromise is to send wines for assessment by the BCVQA, which will give a stamp of approval to all that qualify.

Small Winery # 2

As in the previous case, this is a small winery with insufficient financial resources to hire an external sensory panel. While they do appreciate the value of having wines evaluated, their products regularly sell out, so there is no obvious benefit to using either a sensory panel or the available BCVQA assessment.

Small Winery # 3

In addition to an owner who is also skilled at wine tasting, this winery boasts an expert winemaker who sees the value in tasting regularly for purposes of making the wines better. They appreciate the science involved in winemaking and take advantage of external evaluators to monitor and take note of their product quality to ensure consistent improvement. When the winery opts to break new ground with their wines, or develop something particularly suited to their climate and environment, sensory panels are relied upon to provide guidance and expert knowledge.

The winemakers behind this brand have worked around the globe, honing their sensory skills to an expert level and putting them to work in blind tastings of both their own wines and wines from international sources. Their expertise is such that they can

determine not only the style and sensory properties of a wine during a tasting, but also its place of origin. In their regular evaluations, the winemakers discuss what makes some wines preferable to others and even what wine and food pairings would work best. Seeing its winemakers' level of skill and engagement with their wines, the winery rarely uses an external sensory panel—though it has done so in the past. One participant had this to say about training their palate and using blind tastings for this:

We make really good wine...at the end of the day, it is about making really good wines on a consistent basis—we need good farming, good science, and good blending. We have an assistant winemaker who is nerdy about this. We have a science of how wine is made, and we have ongoing blind tastings. So over time, we have understood what sells well. From time to time, we use a Master of Wine to deconstruct our wines and to make a benchmark for the wine we are trying to make. But we also invite 12 to 15 excellent winemakers from around the region, and we continuously do blind tastings so that we train our palates and we create great wines.

Small Winery # 4

Using its wines' sensory profile as a benchmark, this winery maintains consistency between its vintages and ensures that quality is not compromised if the winemaking process is altered in some way.

After an instance of volatile acidity (VA) in their wines—an issue that resulted in defects that the winemaker himself was unable to perceive—the winery came to appreciate the value of external assessors. As the participant noted, winemakers often have ego tied up in the product they create; so while standards and specifications would

be helpful in regulating the widely diverse range of styles and varieties, it is the neutrality of sensory panels that makes them invaluable to wine quality, especially for small wineries:

I am a food scientist, and I understand how the panel works. It is very powerful stuff. I have always struggled with sensory assessments, but I think the panel is very important. Smaller wineries cannot really do that. They have cellar palate; they may not even notice if there is a problem like tainted wine or flawed wine.

Medium Winery #1

The study participants from this prospering winery do appreciate what a sensory panel brings to the business of wine making and selling, believing that a panel can help when it is time to try a new style or take the winery in a new direction. In general, though, they rely on their own internal testing practices to ensure a consistent product. Like other wineries of the same size, they conduct blind taste tests to measure quality and identify sensory characteristics, even bringing in other winemakers to do the tastings. They find these assessments sufficient and do not feel that an external panel would be strategically beneficial.

Medium Wineries #2 and #3

These two winemakers are consistent in their attitudes and approaches to wine assessment. Both believe that external sensory panels have value, especially when changes are made to established wines. They also agree that third-party evaluations eliminate worries about ‘cellar palate’ while helping with ongoing wine development. But aside from evaluations by the BCVQA, both winemakers choose to keep testing in-

house. They invite their winemaking apprentices and assistants, and occasionally servers from the winery's tasting room, to perform blind tastings, noting that as winemakers they are generally reluctant to have their knowledge and expertise called into question, as a matter of ego. Rather than spending their wineries' resources on new style innovations, they stick to marketing the products they already have.

While all the medium-sized wineries included in the study believed that sensory panels in general, and objective analysis of their wines' sensory characteristics in particular, were beneficial, they likewise all felt that they were unnecessary for the success of their business.

Sensory Panel Coordinator

This Sensory Panel Coordinator provided details of the descriptive, affective, and discrimination tests she oversees, which also includes selecting panel members according to their training and sensory acuity. The latter quality is most important for analytic testing, and panelists must be better than the average wine consumer at identifying subtle differences between products. Because consensual language must be developed during training, it is critical that panelists also have excellent verbal skills in order to communicate clearly and precisely.

The Coordinator expressed her conviction that third-party sensory profiling was essential for the development of new products, for improved quality in the existing stock, and for the wine industry to flourish as a result. She stressed that the science and scientific techniques of sensory analysis were important tools that wineries should be encouraged to employ—though her role as a sensory panel coordinator suggests she may have a bias in drawing those conclusions.

Master of Wine

“Tasting requires complete concentration and a mind that is every bit as open as the mouth, and an all-important nose, to new flavours, styles and developments” (Robinson 2018). This quote from Master of Wine Jancis Robinson reflects the opinions of the Master of Wine interviewed in this study, who stated that the prejudices of winemakers and winery owners are counterbalanced by regular blind tastings, which improve wine knowledge and expertise. In his view, third-party evaluations by sensory panels are important contributions to wineries, though the process is complex and layered.

3.5.2 Study #2: A detailed description of what a good (Merlot) wine should be

Table 6 shows there are five sensory attributes with significant differences between wines (oak aroma, oak flavour, berry flavour, balance, and length of finish). Additionally, although quality score had a significant effect from the wines it also had a significant judge-wine interaction. After recalculating the F-value as per Cliff et al. (2016), the variance in scores was proven to be primarily due to the wines despite the judge’s lack of consensus. Table 6 also shows that judge effects were significant for all attributes. This is because of judges using different parts/ranges of the scales and does not compromise the statistical analysis of the sensory data (Guinard 2006; Lawless and Heymann 1998). Replication effects seen in three of the six significant variables (oak aroma, balance, quality) could have been due to experimental differences (e.g., tasting times, dates, room temperatures). Nonetheless, when looking at the judge-replication and wine-replication interactions, it is evidenced that they are not significant, thus suggesting that judges were in agreement and samples used in both tastings were consistent.

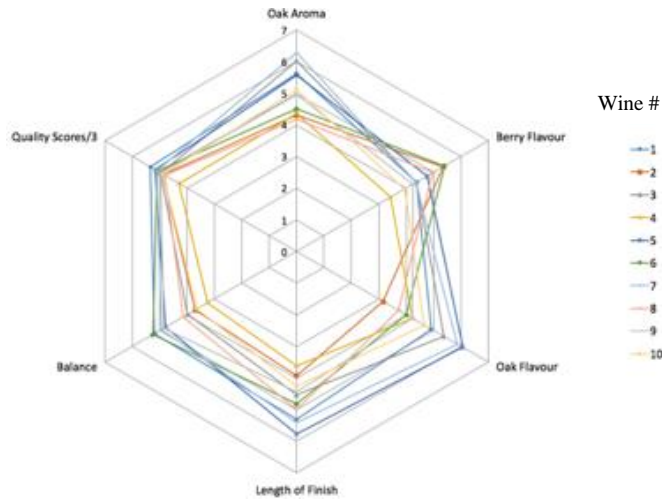
Table 6: 3-way ANOVA summary of F-values and p-values indicating the source of variation amongst 10 Merlot wines evaluated by 6 judges in duplicate

	Judge		Wine		Replication		Judge*Wine		Judge*Rep		Wine*Rep	
Attribute	F value	p value	F value	p value	F value	p value	F value	p value	F value	p value	F value	p value
Oak flavor***	10.269	<.001	4.446	<.001	3.911	0.054	1.304	0.188	0.527	0.755	1.072	0.402
Quality score ***	35.478	<.001	4.335	<.001	4.994	0.03	2.428	0.002	2.164	0.075	1.192	0.323
Oak aroma**	15.249	<.001	2.976	0.007	5.201	0.027	1.254	0.226	1.519	0.203	0.574	0.811
Balance**	13.653	<.001	2.908	0.008	4.57	0.038	1.218	0.255	1.53	0.199	1.708	0.115
Length of finish**	15.595	<.001	2.885	0.009	0.705	0.406	1.165	0.305	0.567	0.724	0.774	0.641
Berry flavor*	32.927	<.001	2.337	0.029	0.254	0.617	1.554	0.072	2.318	0.059	0.428	0.913
Cassis	14.896	<.001	1.939	0.07	7.329	0.01	1.289	0.199	0.273	0.926	0.744	0.667
Astringency	24.573	<.001	1.84	0.087	8.348	0.006	1.59	0.062	3.063	0.018	1.25	0.29
Acidity	25.572	<.001	1.783	0.098	9.274	0.004	0.454	0.995	1.197	0.326	0.669	0.732
Bitterness	8.287	<.001	1.548	0.161	3.6	0.064	1.06	0.423	0.497	0.777	0.643	0.754
Vegetative	18.414	<.001	1.334	0.247	0.512	0.478	0.866	0.684	0.285	0.919	1.539	0.164
Green bell pepper	45.584	<.001	1.221	0.306	0.749	0.391	1.172	0.298	1.666	0.162	1.066	0.406
Vegetal	21.205	<.001	1.155	0.346	0.398	0.531	1.45	0.108	1.528	0.2	0.548	0.831
Mouthfeel	10.642	<.001	0.896	0.537	0.568	0.455	1.216	0.257	0.843	0.526	1.343	0.243
Berry aroma	22.87	<.001	0.603	0.788	0.069	0.794	1.951	0.014	0.705	0.623	0.741	0.669
Spicy aroma	13.873	<.001	0.493	0.872	2.245	0.141	0.988	0.516	0.394	0.85	0.38	0.939

*Significant attributes are highlighted. Level of significance for F Wine values ($p \leq 0.05$, $p \leq 0.01$ and $p \leq 0.001$) is indicated by *, **, and *** respectively.*

Figure 3 shows the differences in the six significant variables between the ten Merlot wines. Sensory measurements used a scale from 0 (zero sensorial intensity) to 10 (high sensorial intensity).

Figure 3: Cobweb diagram with wines' sensory profile for significant sensory attributes and quality score⁴



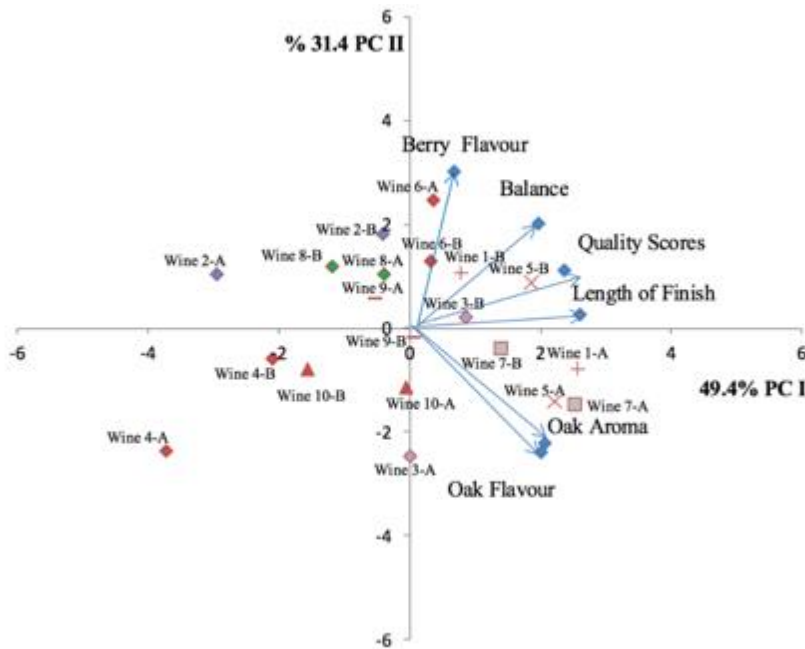
A post-hoc LSD test suggested all ten wines were significantly different on their level of oak and fruit intensity, on how fruit and oak flavours were integrated (i.e., balance), and on their length of finish.

As seen in Figure 4, principal component analysis (PCA) was used to assess the relationships amongst sensory attributes, this allows for the characterization and differentiation of the wines based on their sensory attributes. In Figure 4, the x-axis represents a combined quality/balance/length of finish attribute, while the y-axis stands for a combined berry flavour / oak flavour and aroma attribute. The former explains

⁴ Quality scores were divided by 3 for a better visualization.

about 49% of the variability, while the latter accounts for about 31% of the variability. Each wine has two data points (A and B), for each of the two tasting sessions.

Figure 4: PCA Plot



The vectors in Figure 4 are all of similar length, which means that all attributes have a similar relative importance in explaining variability. The wine attributes represented in these vectors are all positive; wines located in the right-hand side of the plot are more intense in aroma and flavour, while wines in the left-hand side have a weaker intensity in these attributes. Wines perceived as of higher quality are located in the top right quadrant; these wines are balanced and are described as having a good integration of oak with fruity characteristics. Oak aroma and flavour seem to be redundant for this study since their vectors are overlapping. This is also reflected in a high correlation between both attributes (see Table 7).

Table 7: Correlation matrix

	Oak aroma	Berry Flavour	Oak Flavour	Length of Finish	Balance	Quality scores
Oak aroma	1	0.351	0.702	0.435	0.355	0.373
Berry flavour	0.351	1	0.267	0.533	0.594	0.33
Oak flavour	0.702	0.267	1	0.477	0.332	0.371
Length of finish	0.435	0.533	0.477	1	0.665	0.4
Balance	0.355	0.594	0.332	0.665	1	0.473
Quality scores	0.373	0.33	0.371	0.4	0.473	1

In performing their quality assessments for both tastings, panelists were asked to include personal comments. These were used solely for informational purposes. Wine #1 was described as “complex,” while words used to describe wine #6 ranged from “almost artificial” and “fruity” to “not complex enough” and “somewhat flat.” Wine #7 also had a variety of descriptors, with some panelists deeming it very oaky while others felt it was fruity. Among wines 2, 4, and 8, there was more agreement of their low quality. Panelists noted that wine #2 had faults such as “Brettanomyces defects,” “harsh tannins,” “overpowering astringency,” and “flat profile”; and wine #8 was described as having a “lack of complexity,” issues with “Brettanomyces and astringency,” and “lack of balance,” all of which resulted in a poor overall quality score. Panelists gave wine #4, a 2011 vintage, the lowest quality score due to its “lacking balance” and displaying “slight bitterness,” “Brettanomyces,” high astringency,” and “volatile acidity.”

3.5.3 Study #3: Similarities and differences between the sensorial assessments of two distinct groups of wine experts

A first basic analysis consisted of comparing the overall means between both locations, to understand if there was a significant difference in the overall perception of

each of the sensorial categories between both panels. Table 8 summarizes descriptive statistics of wine attributes and overall quality score for each location. The summary findings of a first ANOVA analysis comparing means between locations is presented in the following paragraph.

Table 8: Overall descriptive statistics for each location

	Okanagan			Montreal		
	Mean	Std. Deviation	N	Mean	Std. Deviation	N
Vegetative	2.476	1.8888	196	4.235	2.3122	112
Vegetal	2.946	2.0494	196	3.929	2.1270	112
Berry	5.742	1.9527	196	5.689	1.6851	112
Green Bell Pepper	2.134	1.7616	196	2.929	2.0515	112
Cassis	4.938	2.1480	196	4.968	1.9203	112
Spicy Aroma	5.058	2.0569	196	5.496	1.6836	112
Oak Aroma	4.834	2.0121	196	5.648	1.9124	112
Berry Flavour	5.764	1.8946	196	5.867	1.1805	111
Oak Flavour	5.245	2.0108	196	5.526	1.8333	112
Bitterness	3.119	2.1139	196	5.072	1.9567	112
Astringency	4.955	2.2399	196	5.071	1.7975	112
Acidity	4.724	1.9048	196	5.636	1.5885	112
Mouthfeel	5.347	1.7168	196	5.381	1.4322	112
Taint/Off-Flavour	1.462	1.9329	196	1.946	1.8022	112
Length of Finish	5.605	1.7774	196	5.413	1.4050	112
Balance	4.995	2.0266	196	5.447	1.4826	112
Quality scores	14.510	2.8644	196	14.335	2.7373	112

By implementing an ANOVA and comparing the effects of location for each variable, it was evidenced that the significantly different characteristics between both cities were seen in ($p < 0.001$): vegetative, vegetal, green bell pepper, oak aroma, bitterness, acidity; and ($p < 0.05$): spicy aroma, taint/off-flavour, and balance attributes. This can also be seen by comparing both tables of descriptive statistics. Nevertheless, this comparison lacks the consideration of each type of wine as these means were aggregated

for all the wines tasted. In Table 9 and Table 10, the overall means for each assessed variable per wine, for both locations, are provided.

Table 9: Okanagan means for assessed characteristics

Wine	1	2	3	4	5	6	7
Vegetative	2.0	2.4	2.7	2.8	1.3	3.2	2.9
Vegetal	2.6	2.8	3.1	3.7	2.0	3.2	3.2
Berry	5.4	6.1	6.0	5.2	6.9	5.1	5.5
Green Bell Pepper	2.1	2.2	2.0	2.4	1.4	2.1	2.8
Cassis	4.4	5.2	3.6	5.2	6.2	5.2	4.7
Spicy Aroma	4.3	5.6	4.9	5.5	4.5	5.3	5.3
Oak Aroma	4.5	5.0	3.7	4.7	6.2	4.9	4.7
Berry Flavour	4.8	5.9	5.5	6.0	7.1	6.1	5.0
Bitterness	3.4	3.1	3.0	3.2	2.2	3.6	3.4
Oak Flavour	4.8	5.2	4.1	5.3	6.7	5.7	4.9
Astringency	5.5	5.0	5.0	4.8	3.1	5.7	5.6
Acidity	5.1	4.6	5.5	4.9	3.4	4.5	5.1
Mouthfeel	4.9	5.8	4.4	5.4	6.0	6.0	5.0
Taint/Off-Flavour	1.8	0.9	1.2	1.9	0.8	2.1	1.5
Length of Finish	5.4	6.2	4.9	5.9	5.4	5.9	5.7
Balance	4.7	6.0	4.8	5.1	4.4	5.0	4.9
Quality scores	13.2	15.5	14.4	15.3	14.9	13.8	14.5

Table 10: Montreal means for assessed characteristics

Wine	1	2	3	4	5	6	7
Vegetative	4.0	3.9	4.1	4.1	5.0	4.8	3.9
Vegetal	3.6	4.8	3.8	3.6	3.5	4.3	3.8
Berry	5.9	5.3	4.9	5.7	5.7	6.1	6.1
Green Bell Pepper	2.6	3.9	2.4	3.3	2.9	2.7	2.8
Cassis	4.8	5.3	3.1	5.5	5.0	6.3	4.7
Spicy Aroma	5.5	5.1	4.7	5.9	5.9	5.8	5.5
Oak Aroma	5.6	5.6	4.3	6.3	6.3	5.7	5.6
Berry Flavour	5.6	5.8	5.2	6.2	6.1	6.3	5.8
Oak Flavour	5.1	5.4	4.2	6.3	6.7	5.9	5.2
Bitterness	4.5	5.1	6.1	5.0	4.4	5.4	5.1
Astringency	4.7	5.7	5.5	4.7	3.9	6.0	5.0
Acidity	5.8	5.7	6.6	5.5	4.6	5.3	6.0
Mouthfeel	4.7	5.6	4.5	5.8	5.6	6.1	5.4
Taint/Off-Flavour	2.0	2.0	1.9	1.9	2.3	1.7	1.9
Length of Finish	5.1	5.8	4.9	5.8	4.9	6.1	5.3
Balance	5.8	5.3	5.3	5.5	4.5	5.7	6.1
Quality scores	15.0	14.3	13.8	15.3	12.5	14.3	15.2

An interesting but brief comparison can be done between quality scores: wine #4 was the wine with the best average quality score (when averaging both locations' quality scores) and wine #5 had the lowest average quality score. But whereas wine #4 ranked as best and second best (in terms of quality score), wine #5 ranked as worst in Montreal but as third in the Okanagan. There seemed to be an alignment between both groups of tasters in what was the best wine, but not in what was the worst (as defined by the quality elements provided for them to assess). Thus, this study proceeded to better understand if there was a clear, statistically significant difference in how each group assessed the wines

and if there are specific factors that correlate with each group's assessments of the quality of the wines.

Now, to consider the effects of both the location and the wine tasted, a two-way ANOVA was implemented to analyze the effects of both wine tasted and location. This test showed that when considering each specific wine and comparing it to how it was tasted between both locations, the only two significantly different characteristics were *berry aroma* and *quality scores* (see Table 11); these were not significantly different when compared as aggregate between both cities, but it was clear that the assessment for each particular wine differed between both places (see Figure 5).

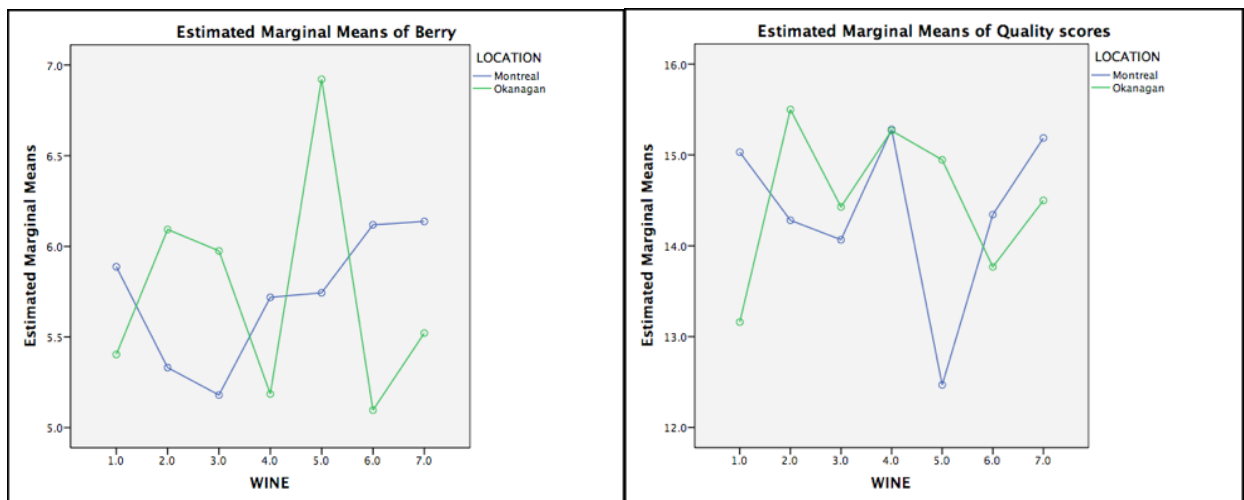
Table 11: Test of between-subject effects for Wine*Location interaction

Attribute	F	Sig.	Wine Sig.	Location Sig.
Vegetative aroma	1.956	0.072	0.392	<.001
Vegetal aroma	0.994	0.43	0.227	<.001
Berry aroma	2.363	0.03	0.403	0.958
Green Bell Pepper aroma	1.135	0.342	0.231	<.001
Cassis aroma	1.375	0.224	<.001	0.809
Spicy aroma	1.198	0.307	0.359	0.041
Oak aroma	0.63	0.706	<.001	<.001
Berry Flavour	1.533	0.167	<.001	0.608
Oak Flavour	0.315	0.929	<.001	0.146
Bitterness	0.905	0.491	0.135	<.001
Astringency	1.073	0.378	<.001	0.637
Acidity	0.177	0.983	<.001	<.001
Mouthfeel	0.464	0.835	<.001	0.75
Taint/Off-Flavour	1.258	0.277	0.871	0.033
Length of Finish	0.317	0.928	0.02	0.377
Balance	1.421	0.206	0.084	0.027
Quality scores	2.701	0.014	0.102	0.484

Significant interaction effects ($p \leq 0.05$) are highlighted

The statistical findings achieved through the ANOVA can be visually evidenced in Figure 5. The mean value for these two variables is judged significantly different in both locations, for most of the wines. For example, Montreal panelists considered wine #6 to have a stronger berry aroma than panelists in the Okanagan did; or Okanagan panelists considered wine #1 as of lower quality than Montreal panelists did. What Table 11 and Figure 5 are suggesting is that quality scores and berry aroma are assessed in each wine differently, depending on the location where they are being tasted; there is a significant interaction between wine and location for those two variables.

Figure 5: Estimated marginal means for quality scores and berry aroma for each wine and location



One interesting case is wine #5 (as shown earlier, this wine had the worst quality score average when considering both locations), which has the biggest difference in terms of the assessment of both berry aroma and quality score. This wine is the famous 2015 Apothic Red from California. It has been critiqued by many wine writers as an undrinkable, overly sweet wine that does not reflect a vineyard but is a ‘made’ wine having a good balance and a sense of deliciousness (Goode 2013). For our Okanagan panelists this wine had a significantly higher

berry aroma than for our Montreal tasters. Moreover, the Okanagan tasters found the wine to be significantly better in quality than the Montreal panelists.

On the other hand, wine #4, which had the best average quality score, had the most similar assessment (least variance) between both locations (see Figure 5). This wine was the 2014, 30 Mile Shiraz from South Eastern Australia. It has been a well-received product by the wine community, winning various awards such as a double-gold and a gold medal in international competitions, and being produced by a winery known for its exceptional ‘value for the money wines’ (The Sunday Times Wine Club n.d.).

Since the quality score variable was constructed from the sum of the quality characteristics, a two-way ANOVA was also implemented to compare each of these characteristics and evaluate whether one of these was significantly contributing to the difference in quality scores between both locations. Table 12 shows the findings of this analysis, illustrating that the ‘defects and faults’ characteristic was the one evaluated most differently for each wine, in both locations.

Table 12: Test of between-subject effects for Wine*Location interaction for quality characteristics

Quality Characteristic	F	Sig.	Wine Sig.	Location Sig.
Appearance & Colour	1.175	0.32	0.009	0.655
Aroma	1.577	0.153	0.562	0.839
Defects & Faults	3.095	0.006	0.13	0.238
Residual sugar - bitterness/acidity	0.618	0.716	<.001	0.581
Body and mouthfeel	0.848	0.534	0.004	0.176
Flavour - length of finish/balance	1.474	0.187	0.058	0.319
Astringency	2.041	0.06	0.255	0.292
Overall Quality	1.556	0.16	0.047	0.9

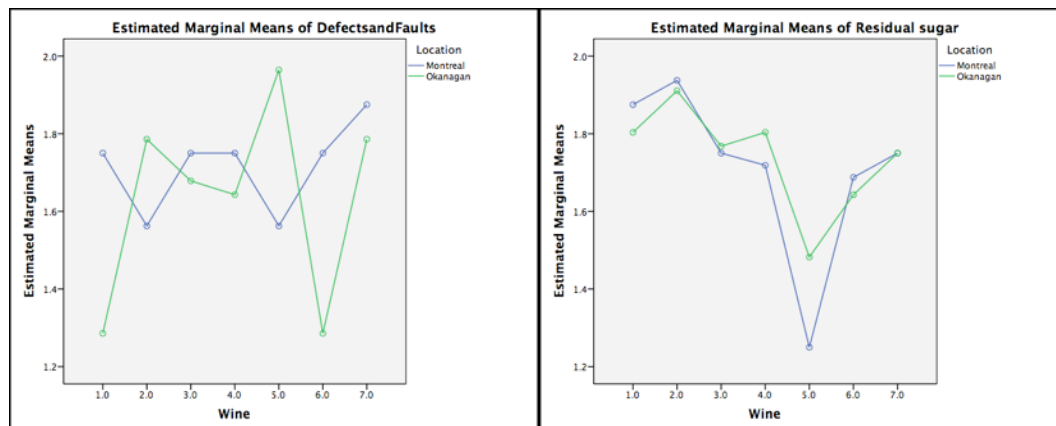
Significant interaction effects ($p \leq 0.05$) are highlighted

The ‘overall quality’ characteristic was not significantly different; nevertheless, since this was only one of the characteristics adding up to the quality score, most of the analysis was based around this latter, following Noble (1995).

The fact that only ‘defects and faults’ was evaluated significantly differently in both locations with regards to each wine does not mean that the other quality attributes did not contribute to the difference between quality scores in both locations. It is a way to see that ‘defects and faults’ had the biggest impact in the quality differentiation. Other variables, such as ‘astringency’ and ‘aroma’, would also add to that difference.

To have another visual comparison of this, Figure 6 shows the estimated marginal means for ‘defects and faults’ and ‘residual sugar-bitterness/acidity’ (this one was chosen for comparative purposes only, as it was the one with the least significant variance between both locations).

Figure 6: Estimated marginal means for defects and faults and residual sugar – bitterness/acidity for each wine and location⁵



⁵ The higher the number, the better the characteristic in the assessed wine – e.g., a wine with 2 in defects and faults has none, whereas a wine with 0 has pronounced defects

Figure 6 shows there is a level of agreement in how each location evaluates certain quality attributes (e.g., residual sugar), while there are significant differences in others (e.g., defects and faults). For example, the Okanagan panel considered wine #1 to have less defects and faults than the Montreal panel, but the opposite happened for wine #5.

This comparison between both locations is significant because of the importance of the quality score variable and its value in promoting a wine. Now it can be argued that there is a clear, statistically significant difference in how quality is assessed between both locations. The next step will be to analyze if there were significant variances between the tasters within each location (giving us insights into how discerning each group was with respect to the different wines and their characteristics) and if there are significant correlations that might give an insight into what characteristics are associated both positively and negatively with a high quality score for each location.

Quality score is a unique attribute in both its relevance for defining and marketing a wine and in that it was the only wine attribute constructed through the sum of eight different elements assessed for each wine by each judge. As previously shown, out of those eight elements, only one was evaluated considerably different between both locations; furthermore, the quality score was evaluated significantly differently in each location. The next consideration is whether there is any significant correlation between the sensory attributes and the quality score in each location. These sensory attributes were evaluated in a separate sheet and with a different procedure than how the quality score was evaluated, and they were not connected in any way. Moreover, correlations do not signify causal relationships. And even though in this case the judges were asked to evaluate the sensory characteristics first and then the quality scores, this does not necessarily mean that assigning a higher (or lower) score to a sensory attribute

correlated to a wine being assigned a better or worse quality score. These correlations are only meant to show what characteristics are strongly associated with high or low quality wines, for each location.

Table 13: Correlation between sensory attributes and quality scores for each location

	Okanagan	Montreal
	Quality scores	
Vegetative aroma	-0.16*	-0.244**
Vegetal aroma	-0.118	-0.228*
Berry aroma	0.191**	0.216*
Green Bell Pepper aroma	-0.097	-0.163
Cassis aroma	0.135	0.187*
Spicy aroma	0.249**	0.075
Oak aroma	0.127	0.101
Berry Flavour	0.19**	0.281**
Oak Flavour	0.166*	0.101
Bitterness	-0.328**	-0.246**
Astringency	-0.287**	-0.164
Acidity	-0.016	-0.116
Mouthfeel	0.297**	0.229*
Taint/Off-Flavour	-0.629**	-0.141
Length of Finish	0.398**	0.220*
Balance	0.595**	0.532**

* Denotes significance at 0.05 level and ** denotes significance at 0.01 level

Table 13 shows the correlations between sensory attributes and quality scores for both locations, with the following interesting findings:

1. *Similarities.* In a previous section it was shown how quality scores were assessed significantly different between both locations. Nevertheless, a clear, strong positive attribute correlating with quality is balance, both for the Okanagan and Montreal. In both cases, the correlation was positive, above 0.5 (the highest in both locations), and significant at a 0.01 level. Berry flavour is another positively and significantly correlated attribute for both locations. The

only negatively significantly correlated attribute (at a 0.01 significance level) for both locations was bitterness.

Two more relevant positive attributes were mouthfeel and length of finish, although these two had more significance for the Okanagan tasters (significant at the 0.01 level) than for the Montreal tasters (significant at the 0.05 level). A similar case is seen for berry aroma and vegetative aroma (this last one with a negative correlation).

2. *Differences.* After evidencing what seemed to be the bases for quality in both cases (balance, berry flavour, and lack of bitterness), the focus now is on the main differences in attributes correlated to quality. The three characteristics that are significantly correlated to quality score in the Okanagan (at the 0.01 level) but not significantly correlated to quality scores at all in Montreal are taint/off-flavour, astringency, and spicy aroma. The first two are negatively correlated to quality scores, so a wine with higher taint/off-flavour or higher astringency usually had a lower quality score; this was less evident for Montreal, where although the correlation was negative, it was small and not significant. The difference is particularly strong for taint/off-flavour, where the Okanagan had a correlation coefficient of -0.629 whereas Montreal's was -0.141 (4.5 times smaller). This indicates that the Okanagan panel was less tolerant of the defect taint/off-flavour whereas in Montreal this was not considered as bad.

3.6 Discussion and conclusion: The role of wine expertise in defining taste and quality and its potential impact on the success of new products

Through the first study described above and through part of the literature review, initial insights about the definition and role of the different types of wine experts are provided. This first study also highlights how wineries perceive the use of sensory panels as part of their processes of assessment and decision-making. Participants from medium-sized wineries valued the science behind sensory panels, although they did not necessarily rely on one for their winery

operations. Both winery participants and wine professionals tend to regard sensory assessments as costly tools rather than as ways to receive complementary feedback. This view aligns with what Lesschaeve (2007) says about wineries preferring to purchase equipment to run chemical analyses rather than hiring humans to implement sensory assessments. While most participants did not say this explicitly, they did show hesitancy to hire wine experts for wine sensory assessments. For example, as mentioned by one participant, many winery owners are more concerned about the achievement of short-term sales than about the long-term possibilities of new products. The wine industry does not expect significantly disruptive wines to enter the market and so sensory panels might not be seen as a necessary investment. This could be different if wineries were expected to release wine styles that challenge the standard norms of quality and taste established in the industry (as is the case with some sustainable wines, such as natural wines). But local wineries are not usually creating totally new products; they are involved in incremental changes, though some might consider new products as the industry evolves and grows (Dressler 2013). With quality-control mechanisms already in place, such as the BC Vintners Quality Alliance, wineries do not see sensory panels/assessments as necessary for increasing their chances of success in the industry.

Nonetheless, new wineries and wineries that plan to offer innovative or unusual types of wines might benefit from having sensory panelists assess the quality of their wines, making sure there is no “cellar palate” (Robinson 2007) or other similar effects in the winemaking before the wines are released to a broader audience. This could be especially relevant for wines that might be associated with certain potential faults and deviations from the standards, such as natural wines (Goode and Harrop 2011). If a winery is focused on launching wines that do not align with traditional taste standards such as some sustainable or natural wines; in these cases, a sensory

panel might be a tool for testing how conventionally trained sensory experts perceive their alternative wine offerings.

Some of these wines that deviate from the mainstream winemaking procedures and norms might have a harder time conforming to a standard of quality as what was described in study # 2. In describing the ideal varietal merlot suited for the local market, for instance, the panel of wine experts who were consulted for this study stated it should be full of flavour, have no defects (including astringency), and combine oak character and balanced fruitiness with a long finish and smooth tannins.

In keeping with Meilgaard, Civille, and Carr's (1999) assertion that the purpose of sensory assessment is to carry out consistent testing that informs decision-making with accurate data, sensory testing was done in this study through the use of quantitative descriptive analysis. While internal or outsourced sensory profiling services can be expensive due to the cost of procuring and training human resources, it is a tool that can aid in the following:

1) Characterizing wines from different regions: The work of Cadot et al. (2012) demonstrated that in terms of sensory typicity in the wines of the AOC Anjou-Villages-Brissac region, the date of harvest and vatting times affected the sensory profile of the appellation more than soil or environmental factors did. As a result, intervention was necessary to protect the wine's sensory characteristics that resulted from environmental factors.

2) Identifying consumer preferences: In consumer studies, sensory profiling has been used to identify the factors that drive the quality and style of wines. When combined with market and consumer research, sensory analysis can highlight the qualities that should be taken into account when improving or repositioning consumer products like wine. By pinpointing the sensory profile of popular wines, or singling out consumer preferences and aversions, wineries

can modify their wines' sensory profiles to better meet market demands. Large, market-driven corporations, such as The Australian Wine Research Institute, are already carrying out consumer-focused research to determine buying preferences (Society of Sensory Professionals n.d.; Francis and Williamson 2015; The Australian Wine Research Institute 2013). These studies have determined, for instance, that consumers prefer red wine that has fruit-freshness attributes and white wine with green capsicum blended with tropical profiles. On the opposite end of the spectrum, consumers disliked even small levels of *Brettanomyces* yeast-induced compounds ("Brett"), bitterness, and the wine aroma known as "struck flint," which is associated with screw-on caps.

3) Determining taints and defects: Sensory profiling can establish quality control in a winery and counteract the 'cellar palate' phenomenon.

4) Validating the practices of viticulture and winemaking with an eye to branding and market demands: By applying the sensory tool to subsequent vintages over time, for instance, the winemaker's choice of wine styles and practices can be validated.

In addition to the aforementioned possible advantages of using a sensory assessment panel, one must also consider the risk of creating a dull wine that might be too uniform from vintage to vintage (Legeron 2014). Although this might be the practice for wineries that want to satiate consumers' demands in a certain region, it might not be the path to follow for a winery and winemaker that want to achieve a certain level of recognition and success in the eyes of the wine world (Goode and Harrop 2011; Humphreys and Carpenter 2018). Thus, wineries looking to market wines with alternative sensorial profiles will need to consider these risks alongside the aforementioned benefits of using a sensory panel to evaluate their wines.

The problem is, even when trying to satisfy the wine experts and critiques that can make or break a winery/winemaker's reputation (as opposed to targeting the preferences of the average consumers of a region), this might not be a straightforward undertaking when considering wine experts from diverse regions and backgrounds. This is evidenced in study #3, where the differences (and similarities) of two groups of wine experts are presented. Although the wine educators/influencers who participated as wine experts in this study generally agreed on the overall quality of the wines they evaluated (consistent with previous research relying on panels of sensory experts (Cadot et al. 2010)), their perceptions of various subjective sensory attributes differed. The theoretical and practical implications from these findings will be now discussed.

As evidenced from the findings of study #3, there is a difference in the way sensory attributes were assessed for each wine between the Okanagan and Montreal panels. When considering the factors that added up to our quality score variable, 'defects and faults' were found to be the only significantly different variable in both locations. This means that each panel, as a group, assessed each wine in regards to defects and faults in a different way than the other panel. For the other quality characteristics, both panels did not have a significant variation in their assessment.

As seen in Table 12, the characteristic of 'overall quality' was not significantly different between the two groups, although some of the assessed specific sensory variables that contributed to the quality of the wines did receive different assessments from each of the two panels. This might be an indication of how a wine taster might evaluate a wine in one way when asked about a standalone, explicit concept of quality, but in a different way when evaluating a wine attribute by attribute, leading to a detailed quality score. This adds to the conceptualization of quality and the notions of intrinsic/extrinsic (Charters and Pettigrew 2007) and

subjective/objective (Charters and Pettigrew 2003) by showing the difference between two types of quality variables: explicit (e.g., overall quality characteristic that panelists assessed) and implicit (e.g., quality score variable, which was the sum of all the sensorial characteristics assessed and the explicit overall quality variable). It was also evidenced that these two types of qualities might differ in how they are assessed, particularly between two distinct set of tasters, reaffirming the idiosyncratic and hard-to-define nature of the concept (Robinson and Harding 2015).

All participants, and across tasting sessions (independent of their region), were similarly consistent in how they evaluated the sensory characteristics of the wines. This meant that the tasting sessions were not a significant factor that influenced how sensory attributes or quality were assessed.

Through the correlation analysis (see Table 13), it was evidenced that there are certain attributes that were strongly correlated with quality in a similar way in both the Okanagan and Montreal. Those were: balance, berry flavour, and bitterness. These were followed by vegetative aroma, berry aroma, mouthfeel, and length of finish, which were significantly correlated in both locations, without a big differentiation between how they were assessed at each location. All these attributes were significantly correlated to quality in both locations and thus form a consensual base of what quality might entail in both locations.

On the other hand, three attributes were strongly correlated to quality in the Okanagan but not statistically correlated to quality for the Montreal panel: spicy aroma, astringency, and taint/off-flavour. What this meant was that the wines perceived as of higher quality in the Okanagan usually had a spicier aroma, lower astringency, and lower taint/off-flavour. In Montreal these three attributes were not correlated significantly with the quality scores, meaning

those characteristics had no significant relation to a wine being of more or less quality. Among the Okanagan tasters, therefore, a red wine with a spicy aroma might be more desirable than it would be to the panel in Montreal, and the Montreal tasters might likewise find a wine with greater astringency and taint/off-flavour more desirable than the Okanagan panel would. This, in addition to the two panels' differing assessments of 'defects and faults', lends strength to the argument that New World winemakers are more skilled at detecting faults than Old World winemakers, who may categorize minor wine faults as simply style characteristics (Goode and Harrop 2011). In the case of study #3, wine experts—both from a New World wine region—had a different take on wine faults, perhaps explained in part by the differences in their training and background (with the Montreal panelists coming from a tradition more aligned with the Old-World style of winemaking).

Out of only three sensory attributes with a stronger correlation to quality in Montreal than in the Okanagan, two were related to negative aromas: vegetative and vegetal. This might indicate that a red wine with such aromas would be better received in the Okanagan than in Montreal. Here again, another layer might be added to the distinction of New World wine experts assessing wines; whereas some groups seem to be less tolerant of certain faults (such as taint and astringency in the Okanagan), others might be less tolerant of vegetal and vegetative aromas in red wines (such as in Montreal).

Furthermore, the findings of study #3 showed that within each location there were some sensory characteristics that had a significant variation between the wines assessed for one location but not for the other. For example, all aromas were found significantly different among the wines in the Okanagan whereas most aromas were not significantly different between wines for the Montreal panel. Furthermore, the level of taint/off-flavour was perceived to be less

variant among the wines tasted by the Montreal tasters than were tasted by the Okanagan ones. Similarly, the length of finish was perceived to be significantly different between wines in Montreal but not significantly different in the Okanagan.

This makes a strong case for acknowledging that every group of tasters (considering their different training, experience, and geographic location) might have a different perception of certain wine characteristics than other groups. For example, one group might be more likely to find differences in aromas whereas the other might be more likely to differentiate between lengths of finish in the palate. The participants had varying ways of assessing sensory attributes in the wines and of linking those attributes with quality. What this means for wines with varying sensorial attributes (e.g., natural wines vs. more conventional wines) is that their success can be different depending on the region and the background of the wine experts in such region. As an example, in study #3, the Apothic Red wine performed significantly better with the Okanagan wine experts than it did with the Montreal ones. A caveat here is that the wine assessment sessions were done blind and so this assessment could have been different if participants had known that they were tasting the famous Apothic Red, a wine that has been widely criticized by the wine community (Goode 2013).

Thus, study #3 highlights how different groups of wine experts, with different training backgrounds and in distinct locations, can perceive wine sensory attributes differently. This difference in wine sensory assessments is relevant considering that wine experts, such as those that participated in the study, are very important actors in an industry that is market-driving (Humphreys and Carpenter 2018) and largely driven by cultural intermediaries like wine educators, sommeliers, wine writers, winemakers, and other wine experts like those that participated in the study. Many, if not all, of the wine experts that participated in this study are in

frequent contact with consumers (e.g., by writing about wine, teaching consumers about wine, interacting with wine consumers that visit their wineries, and providing assessments and feedback about wines that are then passed on to consumers, through programs like the Vintners Quality Assurance program) and so play an important part in shaping what defines a good quality or poor quality wine in their regions. These experts can guide regular consumers' taste preferences and perceptions, although sometimes in different directions. Considering this, wineries that seek to market new and different wine offerings (e.g., sustainable, 'natural', low intervention wines) might need to be aware of the differences in training and sensory assessments that exist between regions and wine experts in these regions. This will have distribution and marketing communication implications that will need to be assessed on a case-by-case basis, considering the overall characteristics of the region and its wine culture intermediaries. This study gives an initial approach to better understanding the geographic and socio-cultural differences that might impact sensory and taste perceptions (acknowledging that factors certainly can have an impact on this but are not considered here).

Overall, this chapter builds up from the three studies to provide a better understanding of the concept and role of wine expertise and how it manifests in the form of wine sensory assessments. A key consideration and potential avenue for future research is extending these findings to better understand how the differences between taste and quality perceptions among different groups of wine experts, and between different wine regions, could potentially enable or obstruct the development of new and sustainable winemaking approaches. For instance, one of the major criticisms of the natural wine movement, a movement that focuses on reducing human intervention in winemaking and thus having a beneficial impact in the environment (Goode and Harrop 2011; Legeron 2014), is the risk of reduced quality and increased wine faults due to a

lack of control of the winemaking process (Alonso González and Parga-Dans 2020; Goode and Harrop 2011; Smith Maguire 2018a). This chapter provides evidence that wines with differing and unusual sensorial characteristics can be appreciated differently depending on the context and background of each taster. Additionally, natural wines with more sensorial differences than mainstream wines might be less accepted in regions where there is no space for variation from a set standard of taste and quality.

Furthermore, additional exploration could be done to better understand what kind of sensorial information (in addition to other production and ingredient content information) would drive consumers to purchase and consume natural wines, considering how taste and quality perceptions might differ from region to region. This has the potential to further drive consumer demand for sustainable wines and allow producers to recover part of the additional winemaking costs that come with such winemaking methods, via a price premium for these type of wines (Galati et al. 2019).

Chapter 4: Conceptualizing wines as subversive art: The case of natural wines

Abstract

In this chapter, a new conceptualization of natural wines—a niche of the wine market not clearly defined—is presented through the lens of art. Urban art (e.g., graffiti and street art) is evidenced to have connotations and processes similar to what the natural wine movement promotes in the wine world. Following previous framings of wine as art, this chapter adds to these theorizations by specifying a type of art and a type of wine. In the case of natural wines, this chapter elaborates on why ‘natural’ can be defined beyond the physical/chemical characteristics of a wine and can instead, or in addition, rely on the discursive and symbolic elements of nature. In this sense, it will be shown that nature is a central piece in the conceptualization of wine (i.e., natural wine) as subversive art. This chapter suggests that three processes seen in subversive art are evident in the natural wine world movement: reclaiming spaces, rituals of resistance, and opposing the mainstream. With this, by providing an alternative (conceptual) way to describe an ill-defined winemaking approach, the chapter contributes to the study of social movements by presenting subversive art as a framing element rather than a direct medium for dissent.

4.1 Introduction

This chapter describes how art and sustainability can be connected and for the wine world, can advance the move towards sustainable wine production methods. It draws from concepts of street and subversive art to show how wine can be considered not only art but subversive art: similar to subversive art, natural wines challenge the established norms and values that are part of the status quo.

This chapter builds from frameworks of wine as art forms (Joy et al. 2021; Tomasi 2012) and contributes an additional conceptualization by analyzing natural wines from the perspective

of subversive art. It will be argued here that the construction of the natural wine discourse has similarities with the role that street and urban art have taken within the broader art world. With this parallel, this chapter presents an initial set of conceptual elements to define natural wines beyond specific vineyard/cellar practices. It will be argued that three characteristics of subversive art are also evident in the natural wine movement: the need to reclaim spaces, rituals of resistance, and opposition to a mainstream/institutionalized status quo.

Following the notion of nature as a social construction beyond the physical space (e.g., seen in vineyards and wine cellars), natural wines can represent a symbolic escape from an overtly manipulated and human-intervened wine (Black 2013; Goode and Harrop 2011). In this way, natural wines also embody a return to past winemaking methods, seen as more pristine and thus better in showcasing the wine grape's true terroir characteristics (Legeron 2014; Ulin 2013). Thus, nature will be a central piece in how natural wines are conceptualized as subversive art.

For this chapter, natural wines will be those made with a minimum of human intervention (Goode and Harrop 2011), that usually use organic and/or biodynamic processes in the vineyard (Legeron 2014). For Legeron (2014), natural wine represents what wine should be: fermented grape juice without adulteration. Natural winemakers take this to heart, eschewing acid, enzymes, or fining agents and relying only yeasts that occur naturally in the vineyard and winery. Many also see mechanical processes like extraction through enzymes, reverse osmosis, and even filtration as disruptive interventions that alter the wine's natural flavours (Goode and Harrop 2011).

With no clear definition or regulation of what a natural wine is – each country can have different regulations (e.g., France allows gross filtration and in Italy natural wine charters allow using between 30 and 50 mg/L of sulfites) - this chapter proposes an integrated definition of

natural wines, not focused on vineyard/winery regulations but based on the discursive-symbolic elements of the movement.

4.2 Nature as (symbolic) escape from the human world

Some researchers (e.g., Castree and MacMillan 2001) propose nature as a social construction, with some associating nature with an escape and opposition to the human world (Canniford and Shankar 2013; Soper 1995). Some also argue that nature is culturally constructed, thus one knows nature through systems of signification and meaning (Whatmore 1999). Nature is also commonly seen as a place where one can get away from human reality (Arnould and Price 1993). Nonetheless, the notion of a ‘pure’ nature can be disputed given the degree of changes that humans have caused through the use of technology and science (Castree and MacMillan 2001).

Macnaghten and Urry (1998) insist that through socio-cultural processes, a series of contested natures are constituted that cannot be divided into any single type. They argue that specific social practices create, reproduce, and change different natures, and that through these practices, people experience cognitive, aesthetic and hermeneutic reactions to nature’s symbols and features. Principles such as being discursively ordered, embodied, and spaced are held within those same practices (Ibid.).

Since the time of mediaeval cosmology when abstracted and personified natures existed, contested natures such as these have been changing and evolving in the western world. In those early days, nature was understood as, among other things, a divine mother, a goddess, and a selective breeder, and these representations varied as the relationships between humanity, God, and nature vacillated. Lewis (1964) states that it was the Greek pre-Socratic philosophers who first proposed a single, abstracted nature (Macnaghten and Urry 1998). Given that these varying

views of nature have been created and then transformed over the course of human history, they are the different natures resulting from context-specific social and cultural constructions.

Soper (1995) holds the cultural and biological perspectives of nature (the latter of which she refers to as nature with an independent existence) in a productive tension, claiming that “while it is true that much of what we refer to as ‘natural’ is a ‘cultural construct’ in the sense that it has acquired its form as a consequence of human activity, that activity does not ‘construct’ the powers and processes upon which it is dependent for its operation” (Soper 1995, p. 249).

While nature can be viewed as a literal (i.e. physical) escape from the world of humans, this chapter considers the concept of nature to be symbolic, representing freedom from the world of human intervention. This will follow Canniford and Shankar (2013) in considering the dualism between nature and humans as a historically constructed distinction fueled by socio-economic and socio-cultural interests. This is not to demote or diminish the reality of physical/chemical processes, as some critics highlight as one of the limitations of social constructions of nature (Shoreman-Ouimet and Kopnina 2015), but to highlight how in this particular case the views on nature reflect the social order in which they exist and the way in which one experiences nature in a particular context and situation, inevitably affected by current social organizations, worldviews, and habits (Vogel 2015).

So while no clear and single definition of natural wines exists (Black 2013), these wines are conventionally described through the material use of nature and can also be defined through the perspective of nature seen through a socio-cultural lens, particularly one grounded in the idiosyncrasies of the wine world.

4.3 Natural wine: a conceptual definition

This chapter, employing the previous conceptualization of nature, proposes an initial definition of natural wines as those for which nature plays a pivotal role in the winemaking process. Through this involvement, nature determines the sensorial characteristics of the wine and is given primacy over other human and technological interventions that could alter a wine's sensorial profile. Furthermore, to expand current conceptualizations of wines as art (artification), this chapter proposes natural wines conceptualized as a specific type of art, as will be expanded on throughout the following pages.

For some, natural wine is a counter to modern winemaking's industrialization and a return to the era and practices before filtration and additives (Legeron 2014). However, natural wines are inconsistently defined and many argue that the natural wine movement as a whole may have different implications depending on the country in which it exists (Black 2013).

Many consider Jules Chauvet, a French winemaker and wine merchant, to be the originator of the natural wine movement, and France its birthplace (Goode and Harrop 2011). Wine plays an integral role in the cuisine and culture of that country, and since the emergence of natural wine bars in Paris as early as the 1980s (Black 2013), the natural wine movement has pushed for an end to mass produced, standardized wines. Elsewhere, the natural wine movement was slower to find footing. Italy joined the movement only after the methanol scandal of 1986, which prompted a shift to quality wine production (Barbera and Audifredi 2012); and in the US, the natural wine movement finally gained acceptance in the early 2000s. Natural wine bars and retailers began opening in New York in 2009, with similar businesses—and the first Natural Wine Week—opening to consumers in San Francisco that same year (Black 2013). This growth has continued around the world and has impacted both how winemakers view production and how consumers perceive the product. The movement has also heightened awareness of

environmental concerns that highlight the need for more sustainable winemaking practices (Goode and Harrop 2011).

In response to criticisms of natural wine as being vaguely and inconsistently defined, this chapter begins to shape a definition that sidesteps considerations of vineyards or wineries in favour of a conceptual and ideological approach. It will also examine characteristics that natural wine shares with subversive art, as both represent an opposition to their mainstream counterparts, the reclaiming of spaces, and rituals of resistance. To start, this chapter offers an overview of wine's conceptualization as art, followed by a building-out of the preliminary definition of natural wines.

4.4 Wine and art

Why should the concept of art be considered when studying sustainability, and in the domain of wines? Throughout the process of this dissertation, a key emergent finding was the fact that the sustainability movement as perceived in the wine industry has similarities to what subversive art represents in the art world. Additionally, wine as art represents opposition to the commoditization and industrialization of the product, a recurrent theme among sustainability discourses (Martin and Schouten 2011).

A description of what art is from an academic/theoretical perspective will first be provided, followed by a discussion of how non-art can become art, and finally proceeding to expand the contribution of this chapter in the case of wine as art, specifically natural wine as subversive art.

Defining art from a philosophical point of view has been controversial, with debates on whether a definition of art can be achieved and, if so, whether it is even useful to have one

(Adajian 2018). In spite of this, Adajain (2018) proposes that there are some unquestionable facts that must be understood in any definition of art:

- Objects that are deliberately bestowed by the artists with a degree of aesthetic qualities (also known as artifacts or performances) emerged thousands of years ago and can be traced back to every known society
- These objects can be understood, up to a point, by most cultural outsiders
- These artifacts or performances can sometimes have other functions different than aesthetic ones (e.g., ceremonial, propagandistic)
- These objects or artworks can be endowed with sensory properties that make them distinctive and of greater interest than most ordinary objects
- Besides aesthetic value, artworks can have moral and political value
- The high value placed on making and consuming art seems to be an essential part of art
- Just like culture can change, art is always changing and thus there are frequent developments in new art forms, styles, genres, and standards of taste and appreciation of art
- Some natural entities (e.g., sunsets, landscapes, flowers) and abstract entities (theories, proofs, concepts) can have interesting aesthetic properties

Some researchers have pointed to the fact that wine can be considered a work of art (Joy et al. 2021; Tomasi 2012). Tomasi (2012) discusses how wine can go beyond the aforementioned categorization of an entity with interesting aesthetic properties and could be considered a work of art. He expands on the reasons why high-quality wines (i.e., those with a minimum level of

sensorial characteristics such as balance, complexity, intensity, character, and expression of terroir) can indeed be considered artwork.

For this conceptualization of wines as artwork, Tomasi (2012) borrows from the aesthetic theories of art and argues that wines are artifacts (i.e., objects whose properties are intentionally produced, as mentioned above) and that wine characteristics include aesthetic properties typical of artwork – e.g., expressive properties. Since certain wines have these properties as an effect of the intention and aesthetic insight of their (wine)maker, then these wines can be considered works of art. Wine embodies the decision taken by its (wine)makers dependant on a variety of factors, and so wines can be considered to have aesthetic and expressive properties. For example, for a red wine to be balanced it needs to have a certain level of sweetness coming from the fermenting alcohol to balance out the acidity and astringency of the wine. This balancing condition (in which no one quality overshadows the others), as well as other quality characteristics of wines, come from the knowledge and intentional activities that are used in the vineyards and wine cellars. In this way, like works of art, wines' aesthetic properties (e.g., balance, complexity, delicacy) come from the conscious decisions that winemakers (like artists) make with certain non-aesthetic factors, informed by the experience and knowledge they possess (Tomasi 2012).

Tomasi's (2012) proposition of wine as art follows Zangwill's (2007) version of the aesthetic theory of art in which an object is said to be a work of art if, and only if, (1) someone, based on an aesthetic insight, makes the realization that with certain non-aesthetic elements a set of aesthetic properties would be realized in them; (2) a practical intention is formed to implement these non-aesthetic elements to achieve aesthetic properties; (3) the intention comes from the aesthetic insight in the right way (i.e., the aesthetic intention originates in the aesthetic insights –

e.g., an aesthetic intention might not originate from an aesthetic insight when there is a causal relationship between insight and intention but the individual with the aesthetic insight and the individual with the aesthetic intention are different, as when someone reproduces an artist's work); (4) as envisioned by the aesthetic insight, a part of the aesthetic properties of the object depend on the non-aesthetic properties of it; (5) the aesthetic properties of the objects were caused in the way that the individual intended to use the non-aesthetic properties.

Thus, Zangwill (1995) presents what he calls a "creative theory of art" in which something is a work of art only if the artist has given aesthetic characteristics to something in virtue of or because of its non-aesthetic properties. It is important to note here that Zangwill argues that the aesthetic properties of an art piece are determined by its non-aesthetic properties. While aesthetic properties can be substantive (e.g., elegance, balance, daintiness) or verdictive/evaluative (e.g., aesthetic merit and demerit), non-aesthetic properties include physical properties (e.g., size, shape, colour, sound) and could also be semantic or representational characteristics (Zangwill 1995).

4.5 The process of artification

Various perspectives on the sociology of art and culture focus on classifying types of art and culture (e.g., low vs high culture or the Bourdieusian theory of domination and cultural theory where the concept of legitimation is used as a central aspect of the study of the artistic field) and on the symbolic boundaries and hierarchies seen in cultural theory research. On the other hand, Shapiro and Heinich (2012) claim these perspectives have difficulty in explaining change and so they propose the paradigm of artification to put emphasis on the material aspects and situations of change where the process of artification, through which non-art is transformed and constructed into art, is a comprehensive process of change in practical and symbolic terms.

The attributions of meaning, recognition, and legitimation come as a consequence of the process of artification.

Shapiro and Heinich (2012) present artification as a process of processes, specifically ten fundamental microprocesses that constitute the macroprocesses of artification. In Shapiro (2019), some additional processes are described as the most salient ones, with the caveat that there could be less or more processes depending on the context and these processes should not be taken literally for every situation, since they have contingent boundaries that are open to interpretation and variation. Ten microprocesses that are relevant for this chapter are listed and described below:

1. Displacement: Extraction or displacement of a concept from its original context. For example, this happened when graffiti was moved from the streets into photographs and published in books, or when breakdancers and hip hop artists moved from the streets and community parties in the Bronx onto the global stage. This displacement usually means that the object, person, or activity is moved from their quotidian setting and into an environment more appropriate for an established artist (such as a museum, stage, or theatre).
2. Renaming: Terminological change happens when words describing a craft or process are changed into new ones. For example, the French image makers (*imagiers*), who were considered manual workers of lowly social status, were later (as a result of their struggle for greater agency over their own work, in the 18th century) recognized as *artistes* or makers of objects of heightened value, called ‘art’ – something to be contemplated, commented, and admired (Shapiro 2019). Names can be central for cultural recognition: for example, the French expression *haute couture* is distinctive

from dressmaking and used in English to denote a special uniqueness and lustre to the process of making clothes of high value/class.

3. Recategorization/changes in rankings: In parallel to the changes in names, categorical changes also usually bring with them a new (higher) status. For example, painters once affiliated with the mechanical trades received a higher intellectual status and a major victory when they shifted to the liberal arts at the beginning of the Renaissance. Breakdancing, now a professional practice, was once seen as disorderly conduct, play for children, and a fad for teenagers. These changes meant both a categorical change and an upgrade in the social/cultural hierarchy (Shapiro 2019).
4. Institutional and organizational change: Naming and categorical changes are connected with organizational and institutional change, such as the one seen when painters and sculptors moved from the craft guilds into the Royal Academy during the Renaissance. It can also be seen in associations and groupings of performers (e.g., theatre or dance ensembles).
5. Functional differentiation and individualization of labour: As processes and collectives change over time, new functions replace old ones. In particular, individual producers attain more power, which in turn enhances the process of artification (Shapiro 2019). For example, what was previously the master's workshop later became the painter's studio as the process of painting became more individualized throughout the 19th century. Breakdancing, first a collective endeavour, has become more individualized, with *auteurs* who choreograph hip hop ballets (Shapiro and Heinich 2012). With the individualization of labour, producers achieve more artistic

legitimacy as they gain power over other collaborators and the recipients/clients of their work.

6. Patronage: Support systems (e.g., via government grants) enhance the perception that art is above other activities that are not worthy of official subsidies and endowments. State patronage provides artists a way to achieve symbolic distinction from other trades and freedom from market-driven demands.
7. Legal consolidation: Normative and legal consolidation is an important process for artification as it can have a significant impact on the legal status of objects and persons, and on intellectual property and restrictions. For example, in the 1960s, legal decisions in the United States ended censorship restrictions and furthered the artification of cinema. While writers and composers were awarded the right to have their work recognized as intellectual property in the 19th century, creators such as chefs have not been able to achieve legal authorship of their works, or to copyright their recipes in spite of other strong trends towards artification in the culinary world (Shapiro 2019).
8. Redefining time: As non-art becomes art, there can be vast changes in the timing of processes used for the creation of the object or practice. For example, while a breakdance on the street can last as little as a few seconds, a spectacle of breakdance can last more than an hour; so what was once a short, individual street act now becomes a staged production that has repercussions on the span and structure of time with a series of new demands for the performers. Similarly, an art ceramicist opposes the industrialization of ceramic production by making individual signature pieces for however long it takes to finish them.

9. Aesthetic formalization: New forms of art, coming from a non-art place, will usually innovate aesthetically while at the same time adopting aesthetic elements from established or precedent art forms. For example, certain contemporary couturiers borrow strategies from avant-garde paintings and sculptures, just as some 1930s clothing designers used aesthetic principles of surrealism.
10. Intellectualization: The intellectualization of a practice is reflected in increased commentary, analysis, and critique of it. This intellectualization has been driven in part by developments in the art world, such as the publishing of painters' and artists' biographies, the emergence of art critique, and the development of academic art history. For example, breakdancers in France stopped being called 'kids' and were instead called 'dancers' by reviewers, just as journalists focused on the art and art history rather than on the socio-cultural traits of the dancers in the 1990s (Shapiro and Heinich 2012). The artification process gets advanced when apprenticeships give way to more formal training, such as the one provided by performing and fine arts schools.

Following from Shapiro's (2007) description of artification as a series of processes that turn non-art into art, Joy et al. (2021) reconceptualize and reframe the fine wines of Burgundy and Bordeaux as works of art. In many cases, the processes and concepts they identify as contributing to the artification and heritagization of fine wines can be similarly applied to a discussion of natural wines. Specifically, the natural wine movement's opposition to standardized winemaking is grounded in a search for transparency and authenticity when serving and selling wine to consumers; building connections between a particular wine/brand and a certain time and place through the process of heritagization is a natural complement to that search.

4.6 Subversion and art

While counterculture has always used art as a vehicle to express its nonconformity with the mainstream (Auther and Lerner 2012; Kan 2001), corporate entities have often co-opted those expressions to attract niche segments of the consumer market (Frank 1997). Such appropriation of counterculture discourse has elicited counterbalancing responses from the market, such as the community-supported agriculture (CSA) initiative (Thompson and Coskuner-Balli 2007a, 2007b), which sees industrialized manufacturing, global distribution, and consumer disconnection from farmers as contrary to the principles of sustainability. Consumers are encouraged instead to go beyond considerations of health and taste to include biodiversity, ecological sustainability, and protection of the small-farm, rural lifestyle when making buying choices (Thompson and Coskuner-Balli 2007a). The same can be seen in street art, which has been infiltrated and repurposed by forces of globalization and capitalization in countries the world over (Daniels 2016). After hip hop culture became a mainstream American cultural phenomenon in the 1990s, companies like Sprite and Nike commercialized graffiti art (an art form closely tied to hip hop) in their advertising to target younger buyers (Kan 2001).

What differentiates subversive art from other forms of art and from other forms of countercultural expressions is a sense of subversion that has sometimes been accused of being illegal, to the point of being labelled vandalism (Daniels 2016). One example of this can be seen in street and urban art, which is considered an illegal and vandalic act in many countries and has thus been forced to be practiced in a quick manner and hidden from the public eye. In this way, this form of art is frowned upon by many. At the same time, western urban art has its roots in political activism and the youth culture of the 1960s, with the rise of quintessential urban artists like Jean-Michel Basquiat, Lee Quiñones, and Keith Harring in New York's urban art scene (Kan 2001).

Graffiti, and other forms of street and urban art, can have a role in the perception of public space and a national identity from the perspective of marginalized (usually young) groups that do not have other ways to communicate their inconformity with the hegemonic narratives in their communities; thus, this form of subversive art serves as a reappropriation of urban spaces and as a way to reclaim a degree of agency, power, and social autonomy (Daniels 2016). Daniels (2016) also argues that street art is an artistic expression that both participates in and resists globalization processes and national rhetoric; graffiti has a long history as a tool for social protest and for expression of collective and individual identities. Originally, graffiti artists were predominantly younger individuals from marginalized sectors who lacked the social and economic resources to improve their living conditions. They did not have a say in the political realm and in the decision-making processes that impacted their livelihoods, and they had no other means to make their voices heard (Morales Mejia 1997).

Subversive art can be seen as a subcultural expression that challenges the dominant aesthetic culture; for example graffiti does this by being an aesthetic occupation of spaces, while urban street art repurposes those spaces (Armstrong 2005). In many cases, the challenge to the dominant culture can be presented through alternative ways of doing things, as with indie culture where “indie” connotes a small-scale, personal, artistic, and creative production in opposition to large-scale commercial media productions (Newman 2009). By doing this, these subversive art forms contest and provide alternatives to the mainstream paradigms of the dominant visual or aesthetic culture. At the same time, subversive art can also be framed in opposition to capitalist and market norms. For example, some graffiti artists denounce companies that have the financial capacity to pay for their advertisements and billboards to be positioned in various locations of a city, and continue to do so regardless of public opinion against such visual contamination; so just

as these advertisements are touted without regard for a passerby's preferences, graffiti artists also feel they can place their pieces anywhere they want in the public space of a city (Ramírez 2008).

Graffiti and street art can be considered a form of cultural heritage, that faced initial opposition and has slowly become more culturally and socially accepted (Bates 2014). Graffiti, which initially began as markings on public or private property without authorization to do so, has evolved into a modern art form that originated in the 1960s (Belton 2001), moving from an underground form of expression into a recognized art form by the art community and entering into the spaces of art galleries and museums (Whitehead 2004).

The aforementioned elements of subversive art can also be seen in the natural wine movement: attracting a younger set of the population, expressing countercultural ideas, opposing elements of the mainstream, providing alternatives to the dominant visual/aesthetic (or in the case of wine, sensorial) culture, and a way of cultural heritage through means that are sometimes frowned upon by most of the dominant/mainstream population. In the following sections, these ideas will be expanded upon and more detailed discussion will follow on how natural wines can be paralleled to what subversive art represents in the art world, as well as a discussion of how this can be of more general interest in furthering the sustainable wine movement and the broader sustainability movement. Following Joy et al.'s (2021) detailed stages of the artification process of wine and the definition of this process from Shapiro and Heinich (2012), this chapter demonstrates how the case of natural wines can follow a similar process of artification, and the implication of this in the wine world.

4.7 Data and methods

To examine how natural (and overall sustainable) wines are framed by wine producers and wine experts, interview and participant observation data was collected and analyzed as part

of a broader study on sustainability in the Okanagan (and Canadian) wine industry. During the fieldwork, interviews, informal conversations, and participant observations (working in a cellar, a vineyard, and a wine shop, as well as participating in multiple wine events and fairs), it was evidenced how an emergent theme for (natural and sustainable) wine producers and wine cultural intermediaries (wine critics, writers, educators, and experts) involved the opposition to mainstream winemaking and positioning of sustainable and natural winemaking that closely resembled subversive movements in other contexts. In particular, a niche wine movement like natural wine and/or sustainable wines has multiple discursive similarities to the aforementioned subversive art movements in the art world. This can be of special relevance for newer wine regions, like British Columbia, Canada, where winemaking is just emerging. This region is in the early process of developing its own identity and of presenting itself as a wine region with a reputation relative to other renowned wine regions around the world (Buschert et al. 2018). For a new wine region such as this, having a better understanding of how new and growing niches of the wine market are evolving around concepts such as sustainability and in opposition to certain mainstream winemaking traditions can be critical for the region's expansion and further legitimation in the wine world.

The interviews included wine makers that worked and resided in the emerging wine region of British Columbia, and wine cultural intermediaries that worked either within the British Columbia wine region or within the broader Canadian wine world. All participants were closely familiar with the Canadian wine market and they were part of Canada's (and British Columbia's) wine industry. For the purpose of this chapter, it was helpful to learn from wine experts and cultural intermediaries as they hold a unique position in a market that is driven more by producers and experts than by consumers (Humphreys and Carpenter 2018). While all

interviewees had a common expertise and familiarity with the wine world, participants varied in their level of knowledge and support of sustainability, and of niche wine movements like natural wines. This ranged from those who were very knowledgeable and supportive of sustainability to those who did not have a clear understanding of the concept and could not comment much on it; likewise, some did not understand or approve of the natural wine movement, while others supported and were knowledgeable about it.

Interviews lasted between one and two hours each, and in some cases a second set of interviews was conducted to follow up and get more details from participants. In-depth, semi-structured interviews were conducted on-site (usually at a winery, vineyard, or at a convenient and quiet enough venue) or via telephone/video calls. Each interview started with questions regarding the participants' context and background, and then moved into topics regarding the concept of sustainability, the broader wine world, and the wine industry and sustainability in the Okanagan Valley and Canada. For every interview, the following guidelines and best practices were used: (1) funnel questions (general-to-specific topics), (2) not asking "why?" (Thompson, Locander, and Pollio 1989) but asking in a less threatening or indirect manner and focusing on useful follow-up questions, (3) avoiding yes/no questions, (4) using probes in a judicious and strategic way, (5) circling back to earlier topics for more depth and to cover missing areas, and (6) exploring certain tangential and potential topics, all suggested by Belk, Fischer, and Kozinets (2013). For the second set of interviews, when applicable, a funnel and circle logic was followed in which there was a follow up on discussions from the first interviews (both taking general topics to more specific details and circling back to topics previously discussed that needed more detail) (Belk et al. 2013).

As mentioned before, each interview was semi-structured to adhere to the topic of sustainability and the wine industry, but each participant was able to change topics and set different courses of conversation with the interviewer, providing their own stories or points of view. This followed a phenomenological interview approach as seen in Thompson, Locander, and Pollio (1989).

For this paper, 27 interviews were analyzed: 11 with wine cultural intermediaries (6 women and 5 men) and 16 with winemakers and/or winery employees/owners (6 women and 10 men). Some of these participants were interviewed more than once. The following table provides some key characteristics of the 27 participants included in this paper.

Table 14: Interview participants

Pseudonym	Main Role In The Wine World	Winemaking Approach/Preference*	Age Range
Alisha	Winemaker	Conventional	40s
Andrea	Winemaker	Non-conventional	50s
Doug	Winemaker	Conventional	50s
Daniel	Winemaker	Conventional	40s
Emma	Winery customer experience manager	Conventional	40s
Eric	Winery general manager	Non-conventional	40s
Greg	Assistant winemaker	Conventional	50s
Ian	Winery owner	Conventional	60s
Jhon	Winery owner	Conventional	50s
James	Winemaker and winery owner	Non-conventional	40s
Karen	Winemaker	Conventional	50s
Kayla	Winery manager	Non-conventional	30s
Mark	Winemaker and winery owner	Non-conventional	30s
Nancy	Winemaker	Conventional	40s
Simon	Winemaker	Conventional	30s
Samuel	Winery owner	Non-conventional	60s
Claudia	Sommelier and wine director at restaurant	Non-conventional	30s
Chloe	Sommelier and master of wine candidate	Conventional	30s
Katrina	Wine consultant	N/a	40s
Kate	Wine project manager	N/a	30s
Paula	Restaurant owner	Non-conventional	50s
Sean	Wine business owner	Non-conventional	30s
Ella	Master sommelier	Conventional	40s
Gerard	Wine consultant	Conventional	40s
Jason	Wine writer	Conventional	60s
Neil	Sommelier and wine consultant	Conventional	50s
Patrick	Wine writer	Non-conventional	50s

**Conventional: the most common winemaking approach, following accepted standards in what can be used in vineyards and cellars – no clear systemic environmental approach / Non-conventional: contesting the accepted standards – more systemic approach to environmental initiatives*

Participant observation methods were also implemented as well as informal conversations with various winemakers and wine experts while attending the international annual Raw Wine Fair twice (2017 in Los Angeles, California and 2018 in Montreal, Quebec).

Overall, throughout the process of collecting and analysing the data, it was evidenced that there were one or two key individuals (informants) who become central for the purpose of an ethnographic research project, as defined by O'Reilly (2009). In the case of this chapter, these informants served as gatekeepers who provided and streamlined access to certain groups of individuals (other winemakers or wine experts). They were also key informants because of who and what they knew and because they were aware of their knowledge about the wine world and enjoyed sharing it. Moreover, these informants could also be categorized as what Spradley (1979) referred to as 'encultured informants' in that they were consciously reflective of their practices and culture.

4.8 Findings: The Artification of Natural Wines and Their Subversive Nature

Natural wines provide an escape from the traditional and mainstream methods of winemaking (Legeron 2014). Natural wines offer a return to what is considered the origins of how wine was traditionally made: through an artisanal, hands-on, no-additives process. It looks to move away from the industrialization of winemaking and add new uncertainty and excitement to traditional winemaking (Goode and Harrop 2011). In this way, natural winemaking seems to follow what (Paxson 2013) calls the "workmanship(s) of risk" associated with artisanal products, as opposed to the "workmanship of certainty" associated with industrial production. Natural wine advocates are in opposition to the use of additives, processing agents, and other products, and argue that wine has increasingly become a standardized product, manufactured by large corporations in a process too concerned with quickly producing large quantities of the same

recipe (Goode and Harrop 2011). Although many would argue that there is nothing wrong with more large-scale and industrialized production, some also criticize the fact that many of these corporations trick consumers by using the illusion of a farmer hand-picking the grapes and a winemaker crafting the wines by hand, when this is no longer the case (Legeron 2014).

Building from previous research on how wine can be considered art (Joy et al. 2021; Tomasi 2012), some instances that further the artification process specifically for natural wines will first be detailed. After this, the findings from the local Canadian interviewees will frame the main characteristics that can define natural wines as pieces of subversive art.

4.8.1 Describing the processes of artification of natural wines

The Raw Wine Fair, one of the biggest international natural wine fairs (taking place annually in locations like London, Berlin, New York, Los Angeles, Toronto, and Montreal), is a clear example of the process of institutional and organizational change (Shapiro 2019). These groupings of like-minded winemakers and wine experts work to promote the expansion and understanding of natural wines. These groups are also seen in local wine growing regions, as will be shown later through the analysis of some local BC interviewees.

Attending two of these Raw Wine Fairs (2017 in Los Angeles and 2018 in Montreal) allowed for informal conversations and experiencing first-hand how natural wines were discussed, positioned, and promoted across these events. One of the key conversations happening around natural wines had to do with the need for a normative/legal definition that would establish natural wines as an accepted and well-known type of wine. Although some natural winemakers debated the benefits of having an official definition of natural wines, many agreed that this was an important and needed step for the natural wine movement to move forward. This would also help with one of the main critiques that many wine experts and winemakers have of

natural wines: the lack of a clear definition of what these wines are. Furthermore, this would be another step towards the artification of natural wines, something that other similar industries (e.g., the culinary world) still seem to struggle with (Shapiro 2019). Some countries have already started this legal and normative process, such as France where natural wines recently received a new charter, trade syndicate, and label; this, according to Isabelle Legeron, founder of the Raw Wines Fair, can be the beginning of a more general process of natural wines getting certification and recognition around the world (Mustacich 2020).

Susucaru wine, a natural wine that has been showcased at Raw Wine Fairs, is the creation of Belgian winemaker Frank Cornelissen and is made from Nerello Mascalese grape varieties, native to Sicily. Susucaru is an example of the artification of wine as it demonstrates aspiration/recategorization, displacement/extraction, and individualization of labour (Joy et al. 2021; Shapiro and Heinich 2012); it has also enjoyed prominent status in the natural wine world as a product worth emulating, much as Bordeaux wines were considered the epitome of fine wine (Joy et al. 2021). Susucaru's rise to fame came after much celebrity and media endorsement, leading some to call it a "legendary natural wine" (Cult Wine 2021).

The extracting or displacing of a production into another context (Shapiro and Heinich 2012) is also revealed in Susucaru wine. In this case, with the endorsement of Susucaru wine by well-known celebrities in the food and entertainment world, such as rapper and television presenter Action Bronson, the wine is no longer just a wine but now a product desired by many that watched Bronson's Vice Media show, *F*ck That's Delicious*. The wine indeed is hard to find, both because of the high demand for it and because Cornelissen's vineyard consists of only 25 hectares on Mount Etna (Adamson 2016). The processes of displacement and aspiration are reinforced when actors like Bronson express their love for the Susucaru; during the web show,

Bronson says “You saw my face when they brought the Susucaru out. I was like a little (...) kid, like my mom just bought the NBA Jam Tournament Edition. I’ve been waiting for this Susucaru all my life. I love this one” (Ibid.).

Individualization of labour (Shapiro and Heinich 2012) is a feature of Susucaru that’s also shared by other wines. It involves the winemaker taking most, if not all, of the credit for the final product, and it has worked well for Frank Cornelissen who has gained enough notoriety to receive a mention in Vogue magazine and a feature in the New York Times (Asimov 2016).

Most of the other processes of artification in wines (Tomasi 2012) can be extended to natural wines (although the intent here is not to check a list and apply, one by one, each of the processes of artification, as this is not the purpose of these processes and the categories they designate are open to interpretation and variation (Shapiro 2019)), but one last important process that differentiates natural wines from other types of wines is the redefinition of time. Just as certain artists will oppose the industrialization of the production of their pieces (e.g., ceramic artworks) by taking as long as it takes to make individual, signature pieces with much attention to detail, many natural winemakers and natural wine advocates oppose the extreme industrialization and acceleration of wine production. This is the case for James. During one of the visits to his winery, the author drove with him to a nearby location where he had some of his sparkling wines stored in ideal temperature conditions. As he was hand-riddling some of these wines, he discussed why this process is important for him, even though it can take a long time to get it done:

The other way of doing this is to load it up into a square cage and it goes into a riddling machine and the machine turns automatically; so, for me to get it this clear can take two to three weeks, and in one of those machines it can run 24 hours a day and it can turn

every eight hours so it can speed the process up and be done in three or four days what takes me weeks. (...) You do this for enough years and just becomes pretty monotonous. (...) But, I find, their [the wines'] personalities come out and you start to understand what is actually molecularly happening in that wine, you understand if it's not settling fast, is there still a ferment going on. So, I look at it as it gives me insight into what is happening with the wine. (...) Because I can hand-riddle, I would rather. Because I can watch every ferment personally, I'd rather.

James here talks about the time invested in hand-riddling wines and why he does it, for a better understanding and quality of the wine. He also compared this method with what other, usually bigger, wineries do in terms of massive production without enough attention to detail. This is a clear instance of how time is redefined in the process of winemaking, contrasting the way things are done for small-production natural wines with the processes used by bigger wineries, which James refers to as having an economies-of-scale mindset.

4.8.2 The characteristics of natural wines and similarities to subversive art

Overall, natural wines have certain similar characteristics to conventional wines that can position both as artworks. Nonetheless, this chapter expands upon three key characteristics that differentiate natural wines from conventional wines and position the former in similar terms to urban/street and subversive art: opposing the mainstream, reclaiming spaces, and rituals of resistance.

4.8.2.1 Opposing the mainstream

In its stand against the mainstream, street art in general and graffiti in particular represented a break from the institutionalized and intellectual tone that many perceived in the

high-art scene. Similarly, the natural wine movement has been seen as opposing the industrialized, mass production of wine, going back as far as 1980's France (Black 2013).

Natural winemakers and advocates see themselves in opposition to mainstream winemakers, whom they see as deceiving because of the obscure processes they use in their winemaking. Here Claudia provides a description of how she perceives a small hub of natural winemakers in British Columbia as opposed to mainstream winemakers that implement winemaking practices that go against the core values of the natural wine movement:

What separates them (the natural wine people in BC) is this thing that I am talking about, where it's like their true philosophy on life is this natural wine thing. I think they have all worked for tons of wineries in the Okanagan and they feel this otherness from other wineries for which they have worked. I know [a winemaker] in particular has worked in really big wineries where they've done what they (natural winemakers) think are really evil things. Like adding, in the laboratory the fruit would come in and then they would enter all the numbers and it would spit out exactly what they needed to add to make it taste exactly like the wine every single other year. Super manipulative. Things like that all the time. Manipulating customers as well and some pretty bad stories that I won't share because they're like their stories. But just like totally manipulating people into thinking one thing but it's the exact opposite thing and charging way more money for something because they are basically lying about how they made it [the wine]. I think they [natural winemakers] have so much experience working in the BC community with things like that, that they sort of take a step back and find each other in their philosophy. They're all friends, it's not like a professional group, just friends making wine in the Okanagan that all feel the same way about wine and are all kind of grossed out about

what goes on in the Okanagan sometimes. That's how they all found each other and I think as more people do more travelling and go to France and see how other people are making wine and maybe go to Georgia and see all the amphoras(...) that group [natural winemakers] is growing and they are accepting of others [joining the group] if you really believe in the things that they believe in.

Claudia describes the discourse that many natural winemakers and wine experts believe in, with regards to mainstream 'manipulative' winemaking. This follows the same idea of subversive art that opposes the mainstream in that it challenges the hegemonic and established ways of doing things (e.g., fine art) and proposes an alternative that is seen as more honest and open to those who believe in a similar philosophy.

While the products and services offered by the natural wine industry are not as readily available and not in the same quantities as those in the mainstream, they can be demanded by consumers looking for an alternative to conventional market offerings (Scaraboto and Fischer 2013). In their work, Penazola and Price (1993) point out the disparity in what constitutes "resistance" among consumers; some enact it by getting out of the market system—the African-American community's protest of a certain brand of cigarettes, and Native Americans' opposition to a brand of liquor that used a tribal leader's name on its labeling—while others enact it by demanding to be let in—African-, Asian-, and Hispanic-Americans seeking inclusion in the market through cultural representation in advertising and related marketing practices (Penaloza and Price 1993). This protest for inclusion in mainstream markets has also been studied in more recent articles (e. g., Scaraboto and Fischer 2013).

Holt (2002) argues, however, that subversive or alternative uses of the market for the purpose of consumption sovereignty do not ultimately result in consumer emancipation. Rather,

because consumers' identity work is carried out within the marketplace rather than in other aspects of life, their creative anti-marketing practices still reflect the overriding capitalist ideology of postmodern economy (Holt 2002). Kozinets (2002) describes a similar phenomenon at the Burning Man Festival, where consumers seem to emancipate temporarily but then are unable to completely escape a market in which they continue to take sign games and social logics. It is Thompson's (2004) contention, however, that while these authors' arguments are based in postmodern theory, they take a modernist worldview through their adherence to a perceived metaphor of inside and outside the marketplace. Postmodernist theorists, on the other hand, argue that the social world is not organized along the neat, categorical divisions presented by modernist social theory (Haraway 1997), and as such there are no clear limits between the marketplace and emancipatory spaces (Thompson, 2004). This argument is supported by the natural wine market, which was born from and is a continuation of current, mainstream wine marketplaces while also being an alternative space.

In their study of consumer movements such as anti-advertisement, anti-Nike, and anti-GE, Kozinets and Handelman (2004) present a kind of opposition to capitalism that is different from those discussed by Holt (2002). Kozinets and Handelman (2004) describe consumer resistance that fuels, rejuvenates, and is therefore sanctioned by the market, and they argue for making a distinction between consumer movements that strive for a style-based counterculture and those that aim to undermine consumerist ideology. These two types of movements are also distinct in their expression, with one emphasizing restraint and self-discipline in those seeking to further the collective good, such as ecofeminist communities (Dobscha and Ozanne 2001); and the other driven by individualism and a focus on hedonism, freedom, and therapy (e. g., Kozinets 2002).

In light of these distinctions between consumer movements, Hond and Bakker (2007) suggest that fear of co-optation and subsequent radical activism might be catalysts that push movements towards deinstitutionalizing of norms and practices (Thompson and Coskuner-Balli 2007a). Less radical or reformatory groups, by comparison, may tend towards reinstitutionalizing; they often champion more corporate social responsibility and turn their attention to how organizations are enacting social and environmental improvements (Hond and Bakker 2007).

One such opposition to the current institutionalized forms of winemaking reflects the subversiveness evidenced in some forms of subversive indie art, such as indie cinema, where mainstream media productions (à la Hollywood) are seen as more interested in the revenues generated than by the value and uniqueness of the art produced (Newman 2009). When talking about going to enology school, James describes what he perceived as the mainstream concept of winemaking and of producing a wine meant to achieve financial success:

I'd say like maybe five or ten percent of the students were curious [about alternative winemaking methods]. But it was basically taught that in order to make the best wine, this is how you had to do it because this is how the best winemakers in the world do [it], and so therefore this is where our research has gone into...you know, like how do we keep the most aromatics during our ferment, we know now that we can use certain yeast strains to emphasize certain flavour profiles and we know now that temperatures during ferments will help retain a lot of the volatile aromatics and so we're learning all these things to optimize this wine so it can be, I always call it 'more'; it can be more aromatic, it can be more smoother, it can be more of something and when I'm looking at a lot of the research papers, when I'm scanning through to see if there's anything that I can glean off,

even with farming it's about optimizing water usage for flavour ripeness, it's optimizing fertilizers for crop loads, it's optimizing so that you can grow the most amount of fruit with the most amount of flavour with the least amount of effort. And I find that it is that level of optimizing that, in my eyes, is sort of making everything taste the same. You know, if I'm tasting Merlots from all over the world, I really want them to be clear and represent where they come from. And I find it's [the aforementioned focus on optimization] monotonizing the flavours to a point where everything just starts to taste the same. Yes, you can maybe figure out that it's Merlot but you have no way of figuring out where it's from because all these New World winemaking techniques are now being used all over the world and everyone thinks 'how are we going to get the highest critic scores and therefore if we have the highest critic scores then we can easily sell out and we can charge more'.

James refers here to the mainstream way of making wines and its anonymizing effect, in which a wine loses the connection to its terroir when the winemaker prioritizes profits. With the winemaker being the mediator in how terroir is expressed in a wine (Demossier 2011), such as an artist who chooses how to transfer their feelings and emotions into something that is potentially beautiful, an artwork (Belton 2001), winemakers can choose how they work with their terroir and express their skills and interpretation of a good wine (Tomasi 2012). This sort of anonymizing effect is what Katrina refers to as wines that rely too much on additives, that will never earn a good score in wine assessments (e.g., those done by Wine Spectator Magazine), and will remind her of breakfast cereal in that these wines will taste the same year after year with barely any vintage variations.

It is also true that consumers are not always seen in opposition to the market. As Karababa and Ger (2011) argue, a consumer may enact successful resistance by creating an alliance with an institution in the public sphere—joining forces with a marketer, for instance, to resist state and religious institutions (Karababa and Ger 2011). These alliances also develop when standing against cultural and aesthetic repression, in areas as diverse as music (Giesler 2008), science and medicine (Thompson 2004), and religion (Sandikci and Ger 2010). The natural wine movement, following from Karababa and Ger (2011) and embodied in the Raw Wine Fairs, can be viewed as a multitude of alliances and interactions between consumers and market actors who have influence over consumer resistance and the development of new, alternative markets. When talking about the Raw Wine Fair, Andrea says:

Natural wines are more important for sommeliers and even a lot of the critics are slow to embrace or investigate it. But because somms are putting these interesting wines on their lists and kind of developing a following for their selections, it's really bringing wines to a grassroots level; you got that passionate, third-party person endorsing the wine.

Convincing their customers and their friends to try some wines that generally don't fit a standardized model for popular wines. Wines that are different and edgy, and dry often, not sweet, not oaky; you know, things that are associated with more either industrial production or standardized winemaking.

Andrea refers here to the notion that natural wines offer an alternative view to the standard and sometimes industrial way of making wine. Natural wines, as Andrea and many others touched on during interviews and throughout various other conversations, represent the edgy and different side of wines. This is similar to the view that many have about urban art as an

alternative and edgy expression of art that is sometimes even on the edge of legality (Christenson 2018; Morales Mejia 1997).

Andrea also touches on what Karababa and Ger (2011) refer to as the alliances between consumers and other stakeholders like producers or marketers. In the case of natural wines, this happens with the promotion of wine distributors and sommeliers. This push can provide certain new and less known wines with new followers that otherwise might not have heard of said wines. As with much of the urban and subversive art scene, when a new visual (or sensorial) proposition attracts enough new followers, there is always the risk of co-optation from the big industry players (Thompson and Coskuner-Balli 2007a), as seems to be already the case with many in the urban art world (Kinsella 2019).

4.8.2.2 Reclaiming spaces

The reclaiming of spaces that takes place in both subversive art and the natural wine movement is rooted in the needs and practices of winemakers and producers. Consumers also play a role, however; their informed buying decisions contribute to that reclamation of space, which will be discussed in the forthcoming paragraphs.

Natural wines represent a return to historic methods of viticulture and wine production, including practices that borrowed from Indigenous tradition. Both biodynamic agriculture, which began in the 1920s, and organic farming, which emerged in the 1940s (Legeron 2014) had their origins in Indigenous farming methods, and modern organic wine practices followed in the 1970s, in the US and western Europe (Jones and Grandjean 2017). It is only recently that organic and biodynamic farming methods have been accepted more widely in the wine world, and they offer a route to reclaiming by giving farmers the knowledge and skills to grow crops without dependence on large corporations. They also reject pesticides as part of the farming process,

meaning farmers and their families can work in a safe conditions that do not endanger their health.

The types of poisons required for grape growing are deadly. (...) There was widespread use of DDT, which is still affecting the Okanagan. My native brothers tell me that the effects of DDT are still here, affecting plants and animals, the terrain and everything. It was widely spread here with the apple orchards. (...) And it's not only just growers, to apply pesticides and herbicides to school grounds and spray while the children are playing in the playground, I mean 'hello boys, wake up', these sprays cause cancer. Nobody is willing to say that but they do cause cancer.

Samuel refers to the use of pesticides and herbicides not just in the wine industry, but also throughout other contexts. This aversion to the potential negative health effects of pesticides (e.g., pesticides in vineyards contributing to mortality due to brain cancer among farmers, (Viel et al. 1998) and other potential risks including those that can affect children directly and also indirectly through their parents (Bassil et al. 2007)) can be a strong motivator for someone to turn to organic agriculture. For Samuel, his worry for how his family could be affected by the potentially adverse effects of pesticides and other chemical inputs used in conventional winemaking was one of the driving forces for him to turn to organic (and biodynamic) agriculture. Furthermore, this concern expands to those he calls his "native brothers," referring to Indigenous populations that have shared with him their concern for the ways that pesticides such as DDT have long-lasting, negative impacts on the local flora and fauna. In this way, organic winemaking and its less interventionist approach offers an alternative and countermeasure to reclaim spaces that were once polluted and taken (sometimes literally, as in the case of unceded territories in British Columbia) by others.

Similar to what graffiti offers young artists and writers (Armstrong 2005), natural winemaking allows farmers to reclaim the spaces they work in and inhabit. And while mainstream vineyards strive to create a certain desirable view, natural wine vineyards emphasize the health of the ecosystem and holistic benefits of their processes over superficial aesthetics.

Eric gives a good example of letting the ground covers grow to flower and “...learning not to mow...we mow and we keep a clean ground cover because we see all these pictures of vineyards that look like golf courses...and that’s supposed to be a healthy vineyard.” Then Eric goes on to discuss how this need to control and dominate every plant and detail on the vineyard seems to him like a colonial approach to agriculture. This is also a socio-political statement in that many natural winemakers no longer want to continue using the established and approved processes and will oppose the use of products offered by big corporations, which are many times aided by governments (Gillam 2013). This opposition has been further fanned by controversy surrounding regular pesticide use in some vineyards, leading to adverse health effects in workers and subsequent legal action (Wasley and Chaparro 2015). There is also a similar opposition between what many Latin American graffiti artists focus on—the political and social critique in their art (Daniels 2016)—rather than on the plain aesthetic of their work.

Besides the immediate spaces that winemakers and growers live in, there is the concept of a bigger land—the one that is providing the grapes and input for the wines of a region. This has been studied extensively and it is the widely known concept of *terroir* in the wine world (Cappeliez 2017; Demossier 2011; Swinburn 2013; Ulin 2013). This concept was further detailed in Chapter 2 of this dissertation, but for the purpose of the current analysis the focus here will be on the idea of *terroir* as a space that is key in providing a wine’s characteristics (Cadot et al. 2012).

Natural wine supporters argue that their wines are a closer representation of what terroir really has to offer since these wines are subject to less human intervention and so represent a more pure form of what a specific terroir has to give (Legeron 2014; Smith Maguire 2018a). Thinking in these terms, natural winemakers position their winemaking and their wines as truly representing the terroir in which they work, reclaiming it from the adulterated version they see (or taste) in many mainstream wines:

I think I have had scores from low 80s to mid 90s [referring to wine critics' scores], so I am all over the board when it comes to reviews but I still think it's super subjective. I would rather taste a wine year after year and even if I didn't like it, I could go "oh, I know which vineyard that is" and if I'm not liking it for quality reasons because it is throwing faults, that is what I'm trying to fix. If it is just a personality/flavour profile then that's the vineyard's choice and that's up to a consumer choice whether they like it or not.

James makes an important distinction here between trying to deal with certain faults and altering the wine's 'personality' or flavour profile. He prioritizes having a core wine personality, connected to a vineyard and terroir, while trying to maintain and improve the quality of the wines. This was a common theme among many natural winemakers, in that they wanted to reclaim their terroir and keep a level of personality in the wines that is many times lost when mainstream winemakers try to fix the wines too much and/or try to replicate or mirror specific (usually crowd-pleasing) profiles. James here makes a point as to how much he might be willing to fix faults in a wine as opposed to altering its terroir-driven flavour profile (Swinburn 2013). As he says, if consumers don't like it, that is up to them. In many other informal conversations

and interactions at his winery, he made this point about certain wines not being for everyone and he seemed to be at peace with this fact.

The connection between a place/terroir and a product like a wine is evidenced in part through the interpretation that the wine is alive and thus can offer different sensory experiences depending on various factors, one of those being the terroir and how the grapes were grown. Ella, a Master Sommelier, gives her take on what she describes as tasting wines that seem to have a better impression of a specific place:

Sometimes, I believe that the wines that are worked organic[ally] do have a certain purity, something a little bit more, a little bit more alive, but that's totally something that is an impression. Would we be able to define it? Like, I'm gonna think of a producer that I went to visit in Roussillon that started working organic[ally], and through the years, his wine, I feel, [has] more precision. And this precision is interesting: we feel that, we have the impression [that] the wine is more alive, but... That's true, the exercise of taking or drinking or tasting a wine through many years, where you're gonna see, maybe, the evolution of something. But the evolution can be as well combined to different wine techniques; it can be combined to picking earlier, it can be combined to less oak or less extraction. So, it's a combination of different things. I believe that, yes, wine[s] that are worked natural [natural wines] do give you an impression of a little bit more of a sense of place—so, when you blind taste, you can say, like: “This is coming from that place.”

On the other hand, there are concerns about how the quality of wines can be ruined, thus disrespecting the land by using inappropriate winemaking techniques that result in a wine that is not perceived as a good wine. This of course can be subjective and can fall under the spectrum of a wine that is completely confected and removed from the sensorial characteristics that a

particular land/terroir offers or a wine that has been ruined because it has been ridden with faults and quality compromises (Goode and Harrop 2011). For Chloe, this is something that should not happen in the current day and age, and it would be disrespectful to the land:

It's 2018, there's absolutely no reason to have a wine that's faulted or has brett or just isn't a clean wine. It's not the 1950s where people were struggling for power and water and all of these things. There is no excuse, the quality of the grapes that you can grow in BC, we are not worried about things like powdery mildew as much as other regions, we are not worried about, you know, pests in a way that...there are other regions that have way more severe problems, that are making way higher quality wines. I think it is really unfortunate that we can grow some pretty damn good grapes and the fact that in the winemaking process they get turned into something not great, I think it is completely disrespectful to the land.

4.8.2.3 Rituals of resistance

Diamond (1982) talks about rituals of resistance that help change society by speaking for those who no longer want to engage with current social and political contexts. Theatres, for example, have become social arenas for rituals of resistance, such as theatre of the absurd, street "theatre," and political "theatre." Similarly, the wine world uses particular characteristics of theatrical performance to attract customers (Joy et al. 2018), but it is no longer a "theatre" with a prescribed script of inviting landscapes and pristine nature; instead it has become a contested arena in which farming methods and the inclusion of technology come under scrutiny (Black 2013).

These rituals of resistance are evidenced in the various alternative approaches that natural winemakers bring to the forefront, such as focusing on manual labour as opposed to over-relying

on technology, implementing riskier modes of production that are more environmentally sustainable (Smith Maguire 2018a), limiting or completely reducing the number of additives used in the cellar (Legeron 2014), keeping the number of interventions/manipulations (e.g., filtration) to a minimum (Goode and Harrop 2011), and overall being accepting of and appreciating different and sometimes funkier sensorial expressions of wine (Black 2013).

Most people that don't know natural wine just classify it all as faulted and funky, and those that don't get it are still push backing, hoping that this is a fad and their wines will come back into style again. Somebody asked [me], 'do you think this is going to go out of style' and I said 'do you think sourcing your organic produce is going to go out of style' and I don't think it is.

While some will call natural and low-intervention wines more prone to faults and funky flavours, James states that for insiders, these are characterizations by people outside the movement who do not truly comprehend and accept natural wines. On the other hand, Daniel, a winemaker at a conventional winery, talks about how he has been approached by certain sommeliers raving about a particular natural wine that he then smells and finds faulted with oxidation, to which the sommeliers react by saying that it is a great wine from x or y country, and so Daniel thinks that they "...kind of swallowed the yellow pill and stand behind it [the natural wine]...I really don't understand that at all..." For Sean, natural wine is the opposite of what others outside the movement describe it as. When describing his interest in natural wines, he says:

Growing up drinking conventional wine with my parents and it generally, like the table wine always tastes the same. It can be from Argentina, it can be from France, it can be from Spain, but it's like a unicorn flavor and it's quite heavy and tannic and alcoholic.

Then I tried some natural wines that were low alcohol, fresh, light, easy to digest. And I had a bottle and I didn't feel bad. And so, I was ok, you can drink more of this and you feel good and the next day you feel fine. And then it's about flavour, more intriguing flavours and styles. I like how they behave differently in different days. (...) They're fragile and some days they show really well and some days they taste closed and not good, it's like a living product. But I've always been into taste, I was into coffee, specialty coffee, with more flavor and acidity, and I just get more of that with this style of wine [natural wines].

Besides the accepting of distinct sensorial profiles and opposing them to the conventional flavours of mainstream wines, natural winemakers and advocates also frame many of their practices as rituals that need to be done carefully to tend to the wines, as opposed to the industrial and economy-of-scales practices that many bigger/industrial wine producers implement. For Alisha, on the other hand, working for a conventional winery, there might not be the intriguing and out of the usual variations that someone like Sean describes, since she is "...looking for a certain degree of consistency, so keeping a similar style of Viognier while improving perhaps the balance and the complexity from year to year...". She argues that she does have a certain degree of creative freedom but not as much as to completely overhaul the current wine styles and offerings (most introduced by the previous winemaker).

Everybody I feel now like dumbs it down, they add the riddling aids and the settling agents, and they are set up to add this opposite ionic charge that's in the glass so that nothing sticks and it's easier to disgorge (...). For me it is about going back to the basics and wanting to understand why every single batch, even though I could work with the same grape and have five or four different vineyards, they'll have a different personality

in every stage of the game. (...) It's almost a joke now that someone says "What's the hard way? Because that is the way James will do it." It's wanting to get back to basics and understand, because they teach you all the chemistry and they teach why you do it, but all of it is for economies of scale, not to make a better wine.

These rituals of resistance are all carried out in opposition to the practices of mainstream winemaking, and in that, natural winemaking's nonconformity mirrors that expressed by the avant-garde art scene (Wiseman 2007). Both reflect a dissatisfaction with the status quo and seek freedom from institutionalized forms.

So, with conventional wine, indeed, people are not necessarily conscious of what they are doing; but, at the same time, you also find wonderful things in conventional wine. I'm not necessarily a believer of this, because, well, because that's just not my way of seeing things, but we've done wine that way for years. Today, it's somewhat... with the post-war period came the industrialization of wine and thus a way for winegrowers to make their lives easier, somewhere, by weeding using tons of chemical products. Today, the pendulum is justly swinging back: we're going the opposite way with biodynamic farming.

Patrick refers to the opposite of what James was saying before: how many conventional winemaking and winegrowing methods are meant to make life easier for winemakers and winegrowers. The natural wine movement seems to accept that many of their preferred methods might not be the easiest or might even make things harder (like James described) for the winemakers, but still justify it as a necessary process. It is perceived as a ritual in getting to know the wines better and going back to the basics after what many describe as the intensification of viticulture and the increasing interventionist approach in winemaking (Legeron 2014).

Whereas natural winemakers might prioritize the use of methods that are not always the easiest to implement, in conventional winemaking it is not uncommon to make use of as many tools as possible to make one's work easier and to improve a wine's perceived quality. Simon, a winemaker working for a conventional winery, follows what he was taught in enology courses and argues that "...we can adjust sugar, legally, we can adjust acid, we want to use what nature gives us but our arsenal ... is we can adjust those things..." And these interventions, as Nancy puts it, are meant to improve the wine's quality since "...a lot of additions impact and improve the terroir and clean up the wine or impact it, make it a wine that can keep its terroir or its tasting more concentrated, so the impacts [of using certain additives in the winemaking process] are mostly positive..." Similarly, Doug suggests that sometimes interventions are necessary to improve a wine, although overall he seemed more conservative in terms of trying to keep the interventions as minimal as possible.

A top-down approach is prevalent in the wine world; those deemed experts and knowledge-keepers are allowed to determine wine preferences for all, and those in the upper echelons of the wine establishment are seen to be restricting access to celebrated terroirs in order to protect their own privilege (Goode and Harrop 2011). Besides reclaiming certain lands and terroir to produce wines that are different than what the dominant taste culture commands, natural winemakers also use winemaking techniques that perhaps not many big wineries can replicate, as they rely on what Paxson (2013) refers to as "workmanship(s) of risk" as opposed to "workmanship of certainty." This artisanal approach, in which there is no certainty about how every product will turn out and in which the wine itself might be a living being with potentially different tastes depending on the day (as Sean described earlier) also brings a risk of not being

able to have as much control in the process of winemaking, something that might not be achievable for bigger productions:

The biggest reason why big wineries don't do as much natural is because it is so much riskier. You know, if I'm using a 100,000 liter tank and I'm trying to do this without sulfur and I'm starting to pick up off-smells and I got to rack 100,000 liters, I have to have a second 100,000 liter tank available for me to rack into. When I'm playing around with barrels, it's easy for me to hopscotch barrels and transfer wine from one vessel to another, to aerate it and blow out flavours that I don't want, but if I'm dealing [with] a huge, 100,000 liter tank, it's going to cost you \$100,000 pretty much. (...) The bigger you get, the harder it is to try to make wines naturally.

Besides the potential financial losses, as mentioned by James above, there is also a risk of producing a product with subpar quality (e.g., if those off-smells that he mentions are not dealt with). The flipside to this is the risk of producing a lesser quality product and thus compromising one's reputation. But then again, another of the chapters in this dissertation has touched on how quality and sensorial preferences can be subjective and thus vary depending on the socio-cultural context in which a wine is being evaluated.

4.9 Discussion and conclusion

This chapter presents natural wines within a conceptualization of the artification of wine (Joy et al. 2021; Shapiro 2019). It demonstrates how natural wine, as a movement and as a concept, can be understood in the context of nature as a social construct, and how it reflects three characteristics of subversive art: opposition to the mainstream, reclamation of spaces, and rituals of resistance. The result is a conceptual characterization and definition of wine that extends beyond simply vineyard and cellar practices. Nature, playing a defining role in natural wine and

its production, is embodied in terroir and is often seen as both symbolic and discursive, given that generations of human intervention have made it difficult to clearly distinguish nature from humans. It determines the sensorial characteristics of wine, and natural winemaking processes give it freedom to do so in lieu of technological or human interventions. The natural wine movement stands against mainstream wine production practices, encourages the reclamation of spaces, and enacts the same rituals of resistance seen in urban and countercultural art forms like indie cinema and graffiti.

Through this chapter, it was detailed how various elements of the artification process are evidenced in the case of natural wines and further expands this theorization of wine and art by providing three key characteristics of natural wines as pieces of subversive art. By understanding natural wines through the lens of subversive art, a new approach is proposed to help define a product that has not been clearly defined given its production variations, but that holds a common discourse across them all. This conceptualization could be extended to other products where similar niche movements like natural wines are beginning to emerge, and to question the institutionalized normativity that dominates their industries and markets. Furthermore, this approach can also be extended to product categories that might not have a clear definition in terms of traditional defining elements (e.g., production method) but have a common underlying ideology.

Whereas wine has been framed as art before, this chapter has provided the first conceptualization of a particular type of wine as a specific art form. The natural wine movement aims to unveil the curtain of secrecy that many have critiqued in the wine industry (for example, the fact that many conventional wines have multiple additives but few wine bottles include the ingredients used in their production (Legeron 2014)). With this, just as the original intention of

subversive art was to express its nonconformity with the mainstream art scene, natural wine offers an alternative to those that distrust the current wine world status quo. Furthermore, this paper expands on previous conceptualizations of wines as artworks (e.g., Joy et al. 2021; Tomasi 2012) and gives a specific and alternative characterization to a new, emergent, and largely undefined type of wine (Black 2013).

For new wine regions, having a better understanding of how new and growing niches of the wine market are evolving around concepts such as sustainability and in opposition to certain mainstream winemaking traditions can be critical for the region's expansion and further legitimization in the wine world. This has special relevance for British Columbia's wine region as one where three of its key identity aspects include having diversity in the wines produced, reflecting the free spirit of a young wine territory and unique personalities of the many new and young winemakers, and offering boutique and specialized wines (Buschert et al. 2018). This could include the reflection of a unique terroir through the process of a more transparent and less intervened-upon wine process (Goode and Harrop 2011).

4.10 Implications

Starting from this characterization, more work can be done to further theorize and understand this developing niche in the world-wide wine market. While the work to define and characterize natural wines using standard methods is still new (Mustacich 2020), this product and movement might be better served by alternative approaches to characterizing the elements that frame them.

From a theoretical standpoint, this work contributes to Joy et al.'s (2021) concept of the artification of wines and introduces an analytic discussion of this burgeoning wine movement. The conceptual definition of natural wines proposed here also offers a new approach to defining

and understanding new, alternative movements and markets that may resist definition by conventional means. This chapter also provides a contribution to the literature on social movements, by conceptualizing how a social movement, such as the natural wine movement, can be characterized through the lens of art. This adds to previous social movement studies that have given art a more direct role in the mobilization process—e.g. by studying the contentions within the art world, the commitment of artists to social movements, or the use of art as a resource for social movements (Mathieu 2018), specifically, this chapter—by framing the elements of an emerging social movement in terms of subversive art. This complements what Mathieu (2018) refers to as the ‘aestheticization of protest’ in which the arts are more directly embedded within the collective action itself. Thus, art becomes the framing and overarching element as opposed to being used as contentious practice, such as when rock was a shared musical taste as well as a contentious practice, with a repertoire including dancing, singing, and drumming (Ibid.), embraced by those opposing the ‘Establishment’ (Bindas and Houston 1989).

Critics of the natural wine movement have labelled it a passing fad, a sham, or a fraudulent venture, equating it with poor quality and rampant faults (Goode and Harrop 2011). This attitude, reminiscent of the elitist art world’s response to urban and subversive art, may reflect simple ignorance of what the movement aims to bring to the larger wine world. Using this proposed conceptual definition and seeing natural wine’s parallel to subversive art, critics may have a clearer notion of what the natural wine movement and its players (both producers and buyers) are offering to and demanding of the wine market. It remains, however, that just as wine is not everyone’s choice of beverage, natural wine may not be the preferred choice for all wine drinkers.

Understanding that the natural wine movement originates in and speaks to values and ideas different from those held by the mainstream wine market—more in keeping with the urban art scene—this work offers tools that may assist wine companies and regions when considering their branding and marketing practices as they relate to the world of natural wines.

Chapter 5: Discussion, conclusion, and implications

Extant research on sustainability in the wine industry narrows its study to compartmentalized areas, usually focused on key environmental concerns (Christ and Burritt 2013; Maicas and Mateo 2020; Sautier et al. 2018). While these key areas are acknowledged throughout this dissertation, the focus has been on how the unique context of wine informs and enables the development of a sustainability discourse, a perspective that is commonly missing in sustainability studies (Komeily and Srinivasan 2016; Marrewijk 2003). This contextual grounding is relevant to analyzing and understanding sustainability as informed by the backgrounds in which it is embedded. Chapters 2, 3, and 4 each provided one contextual piece, analyzed through interdisciplinary lenses, that contributes to further understanding how sustainability is framed in the wine industry.

One key aspect of all three chapters, previously overlooked in the wine sustainability literature, is the importance of producers/experts as key industry stakeholders (Humphreys and Carpenter 2018) and their influence in the potential development of a new social movement and further market development. This study suggests an important role for these actors in developing sustainability movements in wine, especially considering those with positions of power and influence, and those with long-term vision who can have a lasting influence on the industry (Rao, Monin, and Durand 2003). Without the support of producers—both the makers of wine and the makers of wine preferences (cultural intermediaries)—the development of a new wine movement around sustainability would be unachievable. Additionally, this dissertation contributes to the discussion around consumer responsabilization (Giesler and Veresiu 2014) by presenting a case in which producers are presented as moral subjects and describing how responsibility is framed from the perspective of key market actors – producers and cultural intermediaries.

Although all three analytical chapters inform the understanding of how sustainability is framed and contested in the wine industry, each piece has a unique contribution that was articulated and discussed in each chapter. Chapter 2 evidences the lack of a common understanding of what sustainability is in the wine industry and details how its framing is contested and used in the form of ideologic and mythic resources by two opposing sides of a proposed sustainability spectrum. Chapter 3 focuses on one of the key contested codes between experts and producers on opposing sides of said sustainability spectrum: the quality and sensorial code. This chapter provides a better understanding of how wines' sensorial characteristics are negotiated and rationalized by wine experts (with an imperative to produce wines of specific qualities and sensorial profiles, which sometimes truncates other initiatives that do not contribute to this sensorial need) and how these processes can impact the advancement of sustainable wines with unusual wine sensory profiles. Finally, Chapter 4 proposes that a particular sustainable wine movement, the natural wine movement, can be conceptualized as art to better understand and define its discourse. This chapter presents the lens of subversive art through which a commonly misunderstood and undefined movement can be framed. This conceptualization complements previous definitions based on vineyard/cellar practices and corroborates some of the findings described in Chapters 2 and 3; in particular, it shows the rituals of resistance apparent, for example, in the rationalization of sensorial assessments of unconventional wines or in the manual labour that resists conventional technological practices. It also presents the natural wine movement as in opposition to mainstream practices, evidencing the ideologic and mythic contestations emergent from Chapter 2.

Altogether, by providing an examination of the concept of sustainability as embedded in the particular context of the wine industry, these chapters contribute to the literature on

sustainability and social movements by examining them through the lens of sensorial preferences, artification processes, and mythic/ideologic resources.

Thus, some of the findings across these chapters have intersecting characteristics. For example, in Chapter 2, one of the key ideological differences between producers aligned with the Deep Ecology side and those aligned with the Technocratic Stewardship side was the contestation of current quality and taste standards; the former defended a natural quality that can vary year by year, sometimes with unexpected characteristics, and the latter defended current, legitimized conventional quality and taste standards that should be maintained year by year with human intervention. This taste and sensory argument is part of the central theme in Chapter 3, which examines how this conventional quality and sensory standard is constructed and negotiated, and how certain markets might be in a better (sensorial) position to accept new sensorial paradigms (as those presented by the Deep Ecology producers) and perhaps disrupt the current regulative, normative, and cultural-cognitive legitimacy of conventional winemaking. This disruption is also seen in two of the three emergent characteristics of wines as subversive art evidenced in Chapter 4: opposing the mainstream and rituals of resistance. The analyses provided in Chapter 4 can also inform how to market and brand wines that are part of the Deep Ecology side of the spectrum (Chapter 2) by providing characteristics and understandings of its underlying discourses, rationalized through the lens of art. This could be of particular use for markets that are already more open to alternative wine sensorial characteristics, as discussed in Chapter 3. Altogether, these pieces can help to further the adoption and expansion of natural and sustainable wines.

5.1 Contributions to the literature

Having connected all three chapters together, a final discussion of contributions to the literature from each chapter will now follow. This dissertation begins with a deconstruction of sustainability and analysis of the concept through a human/nature lens, detailed in Chapter 2. The ambiguity and contestations when using a sustainability discourse (de Burgh-Woodman and King 2013) were analyzed from a producer perspective, complementing previous studies focusing on the consumer perspective (e.g. Luedicke, Thompson, and Giesler 2010) and following the nature of the wine industry being market-driving and largely driven by producers and wine experts (Humphreys and Carpenter 2018). With this, it established that such a sustainable wine movement is largely a producer-driven movement, whereas most research in new market development from consumption activities (Giesler 2008; Goulding and Saren 2007; Martin and Schouten 2014; Sandikci and Ger 2010; Thompson and Coskuner-Balli 2007a) has given scant attention to the role of producers.

Previous research on the sustainable consumer has focused on describing different symbolic elements for identity construction (e. g., de Burgh-Woodman and King 2013) and on polarizing and binomial characterizations: mainstream vs oppositional, sustainable vs non-sustainable, artisanal or local vs mass-produced or industrial. On the other hand, Chapter 2 presents an alternative way to define and categorize sustainable producers in a continuum, contributing to current theorizations of sustainability (e.g., Landrum 2017) and furthering the study of sustainability in wine research by proposing an overarching typology that complements previous studies on specific initiatives/practices/indicators (e.g., Ferrari et al. 2018; Maicas and Mateo 2020; Merli, Preziosi, and Acampora 2018).

In Chapter 3, the focus turns to one of the central elements in which sustainability is embedded (Marrewijk 2003) in the particular case of the wine industry: sensorial preferences.

This chapter examines how wine sensorial and taste preferences are developed, practiced, and negotiated by wine experts and cultural intermediaries—wine educators, sommeliers, wine critics, and wine writers—and why these preferences matter in the potential development of sustainable or alternative winemaking approaches.

While previous research on sensory assessments focused on the technical aspects of such procedures (Lesschaeve 2007; Meiselman and Schutz 2003; Tuorila and Monteleone 2009), many times focusing on replicability of findings while missing sufficient contextual data and over-relying on experimental procedures (Lahne 2016), Chapter 3 follows Paxson's (2013) reasoning of “workmanship(s) of risk” as opposed to “workmanship of certainty” and establishes that for certain artisanal products (e.g., natural wines), assessing a product and expecting its assessment to be replicated in various situations does not make sense. Not only do these products have a certain level of sensorial variation but as shown in Chapter 3, even expert tasters (with differing contextual backgrounds) when assessing conventional/more industrialized wines, can have differing assessments due to differences in their contexts and training. This adds to the discussion of how New World wine experts might detect certain wine faults more than Old World wine experts (Goode and Harrop 2011) as well as adding to the debate on the need to add context and nuance to how/when/where (and by whom) a sensorial assessment is done (Lahne 2016). Additionally, Chapter 3 also adds to conversation about the difficulty of getting higher levels of commitment to sustainable practices in the wine world, given the focus on quality and the lack of a clear connection between sustainability and wine quality (Christ and Burritt 2013).

Finally, with fluctuating definitions of natural wines largely relying on types of methods in the vineyard and cellar practices (Alonso González and Parga-Dans 2020; Legeron 2014), Chapter 4 addresses the lack of definition of natural wines by providing an alternative

characterization, based on an emergent conceptualization of natural wines as subversive art. Thus, it expands previous framings of wines as artworks (e.g., Joy et al. 2021; Tomasi 2012) and gives an alternative/conceptual definition to natural wines, which are a new, emergent, and largely undefined type of wine (Black 2013; Goode and Harrop 2011). Chapter 4 also complements what Mathieu (2018) refers to as the ‘aestheticization of protest’ (in which the arts are more directly embedded within the collective action itself) by showing how art can be the framing and overarching element as opposed to being used as contentious practice, thus expanding juxtapositions of art and social movements (Mathieu 2018).

Overall, this dissertation has identified and outlined three key elements that need to be taken into consideration when thinking about how to further the sustainability movement in the particular case of wines: the existing contestations between producers and their differing views on sustainability (given this is an industry largely driven by producers and experts); the need for specific sensorial/quality wine attributes and how these are constructed and negotiated, with the possibility of certain markets being more ‘sensorially-opened’ to the unusual wine sensory profiles seen in certain sustainable wine methods; and the understanding of how alternative and sustainable wine movements, such as the natural wine movement, can be defined and understood better through the lens of art.

This dissertation heeds the call for more ‘holistic’ sustainability studies (Christ and Burritt 2013; Weber et al. 2008) by going beyond the economic-environmental-social triad that is usually studied in wine research (Merli et al. 2018). In this case, sustainability is studied holistically in that it is embedded within the unique contextual elements of the industry (Marrewijk 2003) and thus provides a more specific and grounded analysis of what sustainability

means, how it is enacted by key industry actors, and what considerations are necessary for a sustainability movement to advance.

Awareness of these key elements of how sustainability is defined and enacted in the wine industry gives another layer of understanding to the debate between organic/sustainable and conventional modes of food production (Shennan et al. 2017). This understanding is of particular relevance for an agricultural product with characteristics as distinctive as wine's. Since wine is not considered a food item, and taking into account its hedonic nature, the findings of this study could be extended and tested for other product frameworks with similar underlying characteristics.

The analyses provided throughout this dissertation reflect the key areas emerging from an open, circular, and ongoing interaction between fieldwork (for some examples of pictures taken throughout different research locations, see Appendix C), coding, and analysis. Thus, these are not intended to be the only areas of relevance; additional research that studies sustainability under slightly different conditions (e.g., Old World wine regions or the case of different alcoholic beverages such as beer) could provide insight into similarities with and differences from the findings presented here. A summary of the aforementioned contributions is presented in Table 15.

Table 15: Outline of themes and contributions of each chapter

Chapter	Themes	Gaps	Contributions to the literature
Chapter 2	Wine producers' enactment and understanding of sustainability/ Mythic and ideological resources in contesting views of sustainability/ Producers' sustainability continuum/ Producers' role in furthering social movements	<ul style="list-style-type: none"> • Market development from consumption but not production activities (Giesler 2008; Goulding and Saren 2007; Martin and Schouten 2014; Sandikci and Ger 2010; Thompson and Coskuner-Balli 2007a) • Theorization of ideological/mythical contestations focused on consumer side (Luedicke et al. 2010) • Polarizing and binomial characterizations: mainstream vs oppositional, sustainable vs non-sustainable, artisanal or local vs mass-produced or industrial (de Burgh-Woodman and King 2013) 	<ul style="list-style-type: none"> • Alternative way to define and categorize sustainable producers in a continuum, contributing to current theorizations of sustainability (e.g., Landrum 2017) • Overarching typology that complements previous studies on specific initiatives/practices/indicators (e.g., Ferrari et al. 2018; Maicas and Mateo 2020; Merli, Preziosi, and Acampora 2018) • Perspective of the producer (complementing Luedicke et al. 2010) for an industry that is largely driven by producers/experts
Chapter 3	Construction and justification of wine sensorial preferences / Differences in taste preferences based on socio-cultural contexts / Expert's tasting preferences and their impact on new (sustainable) wines	<ul style="list-style-type: none"> • Focus on technical aspects of sensory procedures (Lesschaevé 2007; Meiselman and Schutz 2003; Tuorila and Monteleone 2009), • Focus on replicability of findings, missing sufficient contextual data, and over relying on experimental procedures (Lahne 2016). 	<ul style="list-style-type: none"> • Evidence of how for certain artisanal products (e.g., Natural wines) the replication of sensory assessments in various situations is not guaranteed and should not be expected • Evidence that expert tasters (with differing contextual backgrounds) can have differing assessments • Added to the discussion on how New World wine experts might detect certain wine faults more than Old World wine experts (Goode and Harrop 2011) • Added to the discussion on need for context on how/when/where (and by whom) a sensorial assessment is done (Lahne 2016)
Chapter 4	Conceptualizing natural wines as subversive art / Artification of natural wines as subversive art / Natural wine movement theorized under the lens of subversive art	<ul style="list-style-type: none"> • Definitions of natural wines largely rely on types of methods in vineyard and cellar practices (Alonso González and Parga-Dans 2020; Legeron 2014) • Limited studies on artification of wines (e.g., Joy et al. 2021; Tomasi 2012) • Studies of social movements and arts focused on direct / evident roles of art in mobilizations (Mathieu 2018) 	<ul style="list-style-type: none"> • Expanded previous conceptualizations of wines as artworks (e.g., Joy et al. 2021; Tomasi 2012) • Provided specific and alternative characterization to a new, emergent, and largely undefined type of wine (Black 2013; Goode and Harrop 2011) • Complemented Mathieu (2018) by showing how art can be the framing and overarching element of a social movement

Finally, this dissertation detailed the case of the natural wine movement, a nascent and as yet undefined wine movement aligned with current sustainability definitions, as it provided some

of the key elements that help define current understandings of sustainability in the wine industry. Much of the literature used to analyze this dissertation comes from the Consumer Culture Theory realm. This follows the anthropological and sociological perspectives used to understand the lived experiences of winemakers and wine experts as both producers (of wines and of discourses on wine) and consumers of wine. Indeed, much of what winemakers shared with the author through interviews and other interactions came from their perspectives as (highly experienced) consumers. Other areas of study, including environmental philosophy, sustainability studies, and management studies, were included and combined with the CCT perspective in order to address two main characteristics of this dissertation: (1) that sustainability needs a holistic and systems thinking approach and (2) the acknowledgement that the natural wine movement differs from other consumer movements in that it is driven mostly by producers (albeit expert consumers) that have the necessary level of expertise and insider knowledge needed to inform such a movement. In fact, as described before, the natural wine movement was led by French winemakers and merchants and then expanded to other countries.

Altogether, the key contributions of these dissertation are as follows: (1) An alternative way to categorize producers was provided, along the emergent sustainability continuum using ideologic and mythic elements. This contributes to a different way of thinking about sustainability. (2) It was evidenced that there are differences in wine assessments between experts trained in different traditions, such as WSET and Sommelier guild, and from different socio-cultural contexts. Thus, the success of natural wines will be dependent on which evaluation system is being used. (3) A new way to characterize natural wines was provided, through the lens of subversive art following that both are oppositional to the mainstream, seek to reclaim spaces, and have rituals of resistance.

5.2 Implications for the wine industry

This dissertation offers new insights into market development. Specifically, it identifies and details some of the considerations that wineries and industry stakeholders should keep in mind when thinking about new sustainable market development. These considerations provide insights into promoting the sustainability movement in wine and reveal potential new avenues and marketing strategies for creating competitive advantage in the wine industry.

5.2.1 Understand existing market contestations

Being part of an industry that is largely driven by producers and experts, wineries have a central role in leading industry changes and movements. This potential influence relies on the level of influence and status that wineries/winemakers have (Humphreys and Carpenter 2018). At the same time, as evidenced by this dissertation, some wineries and winemakers will be more aligned with one or the other side of the sustainability continuum. These considerations will be key not just for wineries but also for any other organization seeking to build partnerships that could further develop a sustainability agenda in the wine industry. By knowing the landscape within the sustainability continuum and understanding the current producer contestations around the concept of sustainability, organizations can prioritize strategic partnerships and ways to advance specific sustainability-oriented initiatives. Knowing where a producer stands in the sustainability continuum, which side of the contested sustainability ideologies they favour, and their level of potential influence provides a clearer picture for producers or other organizations seeking industry collaborations.

This study also sheds light on the central relevance of wineries and winemakers in developing and advancing the agenda for a sustainable wine industry. It specifies how different definitions and enactments of sustainability are contested in the industry and how the two

extreme cases (i.e., technocratic steward and deep ecology) oppose each other's practices and ideologies. By understanding the existing contestations, industry actors (including wineries, non-profits, and governments) can better plan for how to implement sustainability programs and initiatives in the wine industry. Additionally, this analysis can help wineries become more aware of the conflicts that exist in defining and practicing sustainability in their industry and can serve as a thinking piece for critically reassessing whether their current sustainability approach is enabling or hindering a sustainability movement.

5.2.2 The overlooked role of sensoriality in wine sustainability

For an industry that has quality, taste, and pleasure as its central ethos (Black and Ulin 2013; Charters and Pettigrew 2007), there is scant research exploring the repercussions of the development and practice of sensorial preferences in the advancement of sustainable wines. This dissertation suggests an important role for sensorial preferences in determining the potential success of new alternative and sustainable wine movements. As discussed previously, these preferences are proven to be subjective and determined by experts' training and contexts. Wineries intending to launch and market new sustainable wines with different sensorial characteristics (e.g., natural wines) should be aware of these differences in sensory assessments. This could be an important consideration in deciding where to launch a new wine product or where to focus efforts in the movement towards sustainable or natural wines.

Moreover, wineries should be aware of the differences in how wine experts such as sommeliers, wine journalists, and educators evaluate certain wine characteristics and whether experts in a region are influenced by either or both Old World and New World wine regions. This can be important, considering the importance of cultural intermediaries in industries such as wine and their influence on the success of a new alternative or sustainable wine.

Finally, this dissertation also contributes to the study of nuanced sensoriality understandings by arguing that sensorial analyses need contextual information in order to make sense. In addition to this, wineries and other industry actors should be aware of how assessments are done and ‘replicated’ for wines with unusual sensorial characteristics. Besides the storage and transportation considerations that could impact natural wines more than conventional wines (Goode and Harrop 2011), this study argues that replicability of sensorial assessments is not something to be expected of natural wines with alternative sensory profiles. Wineries should be aware of the distinctiveness of such wines compared to more conventional ones, and consider different approaches to how wines with these more volatile and sometimes unpredictable sensorial profiles could be assessed. Forcing such wines into the same paradigm of sensorial expectations and imperatives as conventional wines could be an obstacle in the furthering of such sustainable wines.

5.2.3 Subversive art as a communications and marketing tool

With organic wines catching up to the growing wave of interest from environmentally-conscious consumers interested in local and artisanal products (Jones and Grandjean 2018), this study presents a way to frame sustainable wines, and specifically natural wines, and suggests some characteristics that could be explored by practitioners wanting to communicate with potential new wine consumers. By using the characteristics described as particular to natural wines (seen as subversive art), wineries and regions can create brands and communications around these producers and seek consumers with a similar mindset.

Not only does the moral authority of art bring with it the possibility of higher prices for a product (Joy et al. 2021), subversive art in particular provides moral and aesthetic endorsement to the types of wines produced by natural (and other sustainable) winemakers. This particular

type of art and natural/sustainable wines target intersecting markets, e.g. younger consumers concerned for the environmental impact of their consumption activities (Galati et al. 2019). Consumers of certain sustainable wines, such as natural wines, are also interested in a different sensorial experience: one that can bring unusual and surprising sensory profiles (Goode and Harrop 2011) that oppose the need for standardization and predictability in wine production.

When these sustainable wines, seen as pieces of subversive art, are released into the market, they should be accompanied by a contextual or grounding piece, perhaps embedded into the branding of the wines (Smith Maguire 2018b). This piece should position the wine as a work of art and thus include the acknowledgement of its creator(s), who envisioned and produced a wine according to that vision (Joy et al. 2021), as evidenced in this dissertation.

This approach could be particularly relevant to smaller and medium sized wineries that are seeking to offer natural wines while keeping a viable enterprise. By offering wines that are framed as pieces of subversive art, handcrafted in smaller quantities and with the aforementioned principles in mind, wine producers could sell these products at a premium that could help absorb some of the potential additional costs incurred in producing wines in a natural or sustainable way.

By piecing together the different elements studied in this dissertation—the sustainability ideologies and enactments, the sensorial imperatives characteristic of the wine world, and the framing of natural/sustainable wines as subversive artworks—wineries interested in sustainable and natural wines can work towards constructing a robust sense of authenticity. In the particular case of sustainable wines, this might be a natural authenticity and/or an exceptional authenticity (Gilmore and Pine II 2007). The former is evidenced in the contestations between winemakers in the sustainability spectrum, where some position themselves as providing a natural product while

characterizing the others as artificial. The exceptional authenticity is exhibited in the genuine offerings for unique sensorial preferences or tastes, driven by terroir and a minimum of human-intervention, that oppose the disingenuous approach of wineries that promote a terroir-driven product only to standardize it and remove all imperfections, rendering it predictable and unexciting.

5.3 Limitations and directions for future research

This study can be extended to cover additional aspects that were not the focus of this dissertation. A first limitation that could be further studied is the inclusion of other stakeholders (e.g., consumers, policymakers, regulators, celebrities) that have potential contributions to how a sustainable market of wines can be developed. As mentioned previously, this study has focused on market-driving stakeholders, the producers and wine experts, who have the influence to shift markets and preferences (Humphreys and Carpenter 2018). Although this made sense given the power and influence that these stakeholders have in the wine industry, additional research could focus on further describing this power structure and comparing how winemakers and wine experts from various parts of the sustainability continuum (Chapter 2) differ in their influence and in how they exert power in the market. Although previous studies have focused on the study of consumers and how they develop ideologic and mythic resources in contesting consumption practices (Luedicke et al. 2010), new research starting from the propositions and continuum established here via wine producers could give better understandings of how consumers use the ideologic and mythic resources established by winemakers to further contextualize and justify their consumption choices.

Furthermore, analysis of government stakeholders and celebrity influencers could provide a network analysis of how collaborative networks influence and are influenced by producers'

ideologies, industry sensorial imperatives, and characterizations of wine as artworks. In particular, network collaborations and their impact on the development of a sustainable wine movement are outside the scope of this dissertation and thus could build from the findings established here.

This dissertation presents a sustainability continuum with two extreme proponents of versions of sustainability in wine. While all participants and wineries interviewed and analyzed for this study fall within this continuum, future studies could detail what an ‘unsustainable’ winery looks like and how it relates to current sustainability wine discourses. In particular, future research could study and map multiple wineries and assign them positions on the sustainability continuum. This could then serve for analysis of the characteristic features (if any) of wineries in certain clusters along the continuum, as well as those that would fall outside of it and be considered non-sustainable.

While Chapter 3 touches on some comparisons between Old World and New World ways of appreciating wines (Goode and Harrop 2011), the overall analysis of the dissertation was implemented with New World participants; future studies could investigate whether there are limitations to the proposed frameworks when implemented in an Old World context. A comparative analysis between both worlds could examine different uses of the concept of nature/terroir and how these inform sustainability contestations differently, if at all, for each region. On the other hand, the positioning of natural and sustainable wines as subversive art could differ between regions with distinct traditions and histories of winemaking and could be further studied and compared. Additionally, it is to be noted that most of the sensory analyses implemented throughout Chapter 3 cover a technical sensory approach (and training) that is not the only aspect of being an expert. Studies on other approaches to expertise have been studied

(e.g., Latour and Deighton (2019) and Latour and Latour (2010)) and mentioned here and could be further explored in light of this dissertation's findings. Finally, future studies could use a similar approach as described in Chapter 3 to analyze how a sensory analysis for wines from different levels of the sustainability spectrum described in Chapter 2 would look like. This could present interesting differences between the different levels of sustainable wines and a further connection to each of their unique winemaking methods.

Another potential avenue of research could expand upon the ways in which a producer movement, such as the one seen in natural and sustainable wines, reacts to threats such as macro-economic crises or world pandemics. Expanding on what Chatzidakis, Maclaran, and Varman (2021) presented for consumer movement solidarity, researchers could continue the inquiry about the mechanisms that serve to overcome threats of such nature, in the particular case of producer-led movements. This might of particular interest given the potential disruptions that recent world events (e.g., the global COVID-19 pandemic) could have on the broader wine industry as a whole, but especially on smaller niche segments of the wine market such as sustainable and natural wines.

Finally, with current environmental conditions changing and looking more challenging every year (e.g., 2021 has been a year of major wildfires and smoke, followed by devastating floods and mudslides caused by extremely heavy rainfall that led the government to declare a state of emergency), it will be relevant to expand some of the analyses presented here and consider how are producers from different levels of sustainability reacting and dealing with climate change and the potential effects it might have on wine growing. In particular, it would be useful to implement a sustainability assessment of producers representing different levels of the proposed sustainability continuum (Figure 2). This could be implemented through the use of

various sustainability indices (some of which have already been proposed and developed for the wine industry, see for example Valero, Howarter, and Sutherland (2019) focusing on a Life Cycle Assessment (LCA) approach).

This dissertation has provided insights into the ways sustainability is enacted and rationalized by wine producers and cultural intermediaries. It opens the possibility for further study of sustainability as embedded within the contextual realities of wine and provides frameworks for better understanding sustainability given those contexts. The sustainable wine movement has gained traction in recent years (Jones and Grandjean 2018) and these series of studies present a layer of analysis that could inform policy and decision making when considering how to further expand such movements. Considerations of how sustainability is contested and enacted by different types of producers, the sensorial expectations of wine and how they impact the success of sustainable wines, and the characterization of natural and sustainable wines as subversive art works and what this means for the development of a wine sustainability movement have all been presented as emergent topics from this research and are relevant to the dissemination and success of the sustainability movement in the context of the wine world.

Furthermore, with the problems of defining sustainable and natural wines and with ongoing attempts to market them as truly reflecting the land, being free from chemicals and excessive intervention, practicing conscientious farming, among other descriptors, this dissertation provides a new approach at defining this type of wine from a different perspective – using ideology and art. This, while considering sensorial requirements unique to the wine context that are especially relevant for a category of wine such as sustainable/organic/natural that has

been in the past associated with lesser quality but has started getting more followers and quality recognitions.

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Appendices

Appendix A

Panelist #: _____ Rep#: ____ Date: _____ Sample# _____

Aroma

Vegetative

Vegetal

Berry

Green Bell pepper

Cassis

Spicy Aroma

Oak Aroma

Taste and Flavor

Berry Flavor

Oak Flavor

Bitterness

Astringency

Acidity

Mouthfeel

Taint/Off-flavor

Length of Finish

Balance

Appendix B



Ranking Assessment

Based on the UC-Davis 20-point scale. Deduct points for flaws and faults.

			<u>Wine 1</u>	<u>Wine 2</u>	<u>Wine3</u>	<u>Wine 4</u>
		#	#	#	#	
Appearance & Color	Clear/Characteristic	2				
	Slightly hazy/Pale	1				
	Cloudy/Off-color	0				
Aroma (by nose) Varietal aromas, bouquet from oak and ageing	Complex	4				
	Superior/Good	3				
	Average	2				
	Poor or weak	1				
	Major flaws	0				
Defects and faults Oxidation, VA, sulfur TCA, geranium, Brett	None, clean	2				
	Slight	1				
	Pronounced	0				
Residual sugar Bitterness/Acidity	Appropriate	2				
	Poor	1				
Body & mouthfeel	Appropriate	2				
	Lacking	1				
Flavor by mouth Length of Finish & Balance	Complex	4				
	Good/Superior	3				
	Average	2				
	Poor	1				
Astringency Reds and rosés (add 2 points for whites)	Balanced tannins	2				
	A bit rough	1				
	Harsh & bitter	0				
Overall Quality	Superior	2				
	Average	1				
	Poor	0				

Appendix C



Picture 1: Warm day and dry soil in one of the vineyards



Picture 2: Gator, used to move around vineyards



Picture 3: Vineyards and roses - view from a wine shop



Picture 4: Some of the products used at one of the wineries



Picture 5: Tanks and water hose at one of the wine cellars



Picture 6: One of the small vineyards - well-kept and visible to the public - during a wine tour



Picture 7: Irrigation in one of the vineyards



Picture 8: Young bird on a vine



Picture 9: Bird nest on a vine



Picture 10: Chickens (pest control) in one of the vineyards



Picture 11: Riddling bubbles by hand



Picture 12: Participant observation at RAW Wine Fair in Los Angeles, 2017



Picture 13: Tasting biodynamic amphora wines at the Raw Wine Fair, 2017



Picture 14: La Grande Dégustation de Montréal, 2018



Picture 15: Raw Wine Fair in Montréal, 2018



Picture 16: Tastings and conversations at Raw Wine Fair, Montréal, 2018

Appendix D

Sample Consent forms, contact letters, interview guides



Faculty of Management Okanagan Campus
3333 University Way
Kelowna, BC Canada V1V 1V7

Phone 250 807 9462
Fax 250 807 8533
fom.reception@ubc.ca
www.ubc.ca/okanagan/management



Consent Form to Participate in Research (Short interviews – Winemakers/producers):

Taste Culture and Sensory mapping in the Wine industry in British Columbia

A. Principal and Co - Investigators:

This proposed study will be conducted by Dr. Annamma Joy, Principal Investigator, Professor at the Faculty of Management at UBC's Okanagan campus (250-807-8606) and Dr. Bianca Grohmann, Co-Investigator, Professor at John Molson School of Business at Concordia University (514-848-2424, ext. 4845).

Study Team Members:

Camilo Pena doctoral student at UBCO and Darcen Esau a Masters student will assist in gathering of data through interviews. The project, "Sensory analysis, terroir and the development of taste cultures in the wine industry of the Okanagan Valley of BC" is funded by an SSHRC grant.

B. Purpose:

This is an academic program of research that aims to understand the motivations and perceptions on wine consumption in the Okanagan Valley of BC. It is anticipated that the final results will be submitted for publication in a peer-reviewed management journal and will be used by a student to write a Master's Degree dissertation.

C. Procedures:

To participate in this study, you must be 19 years or older.

As part of the research process, you will be invited to participate in a short and long interviews around the concept of terroir and winemaking. The short interview will last no more than 1 hour. The long interview might take an hour. We propose to audio and/or videotape your interview, but only with your written consent. If you decline to be either audio or video recorded, we nonetheless value your participation in our research.

We will ask you about the concept of terroir and other wine related notions. We will be discussing the different perceptions you have around these topics and if you communicate them and how do you transmit this to wine consumers. As with all research there are no right or wrong answers. We are merely interested in learning about your opinions in these topics, your assessment on the wines you profiled, and the ways you communicate these notions to consumers.

We also wish to inform you that we would like to use the data for making videos to present at conferences, class room teaching or to general audiences. Again, your written consent will be sought before hand and if you decline we will continue to value your participation in our research.

D. Confidentiality

Your participation and all information you provide will be confidential. I will transfer recordings to password---protected computer files for data analysis. All audio recordings, videotapes, and transcripts will be securely stored, and accessible only to us. To ensure confidentiality in any written or verbal form of my research results, we will replace your name with a pseudonym, and will change or omit any information that could potentially allow any disclosure of your identity. However, since there is a possibility of being identified in video tapes, we do acknowledge some limits to confidentiality. None the less, your informed and written consent to use the data for such purposes will be sought before hand. We will store all research data in password---protected files that only we can access. If you wish, we will provide copies of transcripts of recorded material in which you directly participated. If you object to anything in the transcript, you will have the option of withdrawing from my research; whatever information you provided will be deleted.

E. Potential Risks and Potential Benefits

There are no known risks or direct, personal benefits associated with participating in this study.

F. Remuneration/Compensation

There is no remuneration for participants in this study.

G. Contact for further information about this study:

If you would like a copy of the summary of the results, please provide your address or email at the bottom of this form.

If you have additional questions, please contact me by email : annamma.joy@ubc.ca , or by telephone at (250) 807---8606.

H. Contact for Concerns about the Rights of Research Subjects:

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Services at 1-877-822-8598 or the UBC Okanagan Research Services Office at 250-807-8832. It is also possible to contact the Research Participant Complaint Line by email (RSIL@ors.ubc.ca).

I: Consent:

Your participation in this study is entirely voluntary. You may refuse to participate or withdraw from the study at any time without any negative consequences.

Your consent indicates that you are 19 years or older.

I HAVE READ THE ABOVE AGREEMENT IN FULL AND UNDERSTAND ITS TERMS. I HAVE RECEIVED A COPY OF THE AGREEMENT FOR MY RECORDS. I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print)

SIGNATURE _____

DATE: _____

I consent to being audiotaped during the interview: Yes____ No____

I consent to being videotaped during the interview: Yes____ No____

If you wish to receive a copy of research summary results, please provide your address or email below:

Address:

Email:



Consent Form to Participate in Research - Interviews:

Exploration of innovative sustainability-based wine shop strategies

A. Who is conducting the study?

Dr. Annamma Joy – Professor, Faculty of Management – UBC Okanagan –
250-807-8606 – annamma.joy@ubc.ca

Camilo Peña – Doctoral Candidate – UBC Okanagan – 250-859-2719 –
camilo.pena@ubc.ca

The project, “Exploration of innovative sustainability-based wine shop strategies”
is funded by a MITACS grant with collaboration of X Winery.

B. Purpose:

This is an academic program of research that aims to understand the motivations and perceptions on wine consumption. It is anticipated that the final results will be submitted for publication in a peer-reviewed management journal. Furthermore, this research will be used for parts of Camilo Peña's PhD dissertation. Such dissertations are considered public documents and will be available on the Internet via cIRcle, the University of British Columbia's digital repository for research and teaching materials. After publication of any articles or manuscript, and following UBC policy, data will be stored for a minimum of five years.

C. Inclusion – exclusion criteria for participation:

X wine shop customers who are 19 years old and/or older and that can speak and read in English are eligible to participate in the project.

D. Procedures:

As part of the research process, you will be invited to participate in two 1.5-hours interviews. We propose to video /audio record your interviews, but only with your written consent. If you decline to be video/audio recorded, we nonetheless value your participation in our research.

For the first interview, we will start with your wine preferences and consumption, the occasions on which you choose to drink wine, and your level of interest in learning more about wine related topics. As with all research there are no right or wrong answers. We are merely interested in learning about your opinions and your preferences in wine consumption. For the second interview we will ask you to select a set of images that relate to wine, wine tourism, and sustainability. Then we will talk with you about the reason for your choices and what they mean to you.

We also wish to inform you that we would like to use the data for making audio/video files to present at conferences or general academic audiences (only for research and discussion purposes with colleagues and other sustainability, consumer behavior and marketing researchers). Again, your written consent will be sought before hand and if you decline we will continue to value your participation in our research. If during the interviews you feel any signs of discomfort, you can withdraw from the sessions at any moment. If you decide to withdraw prior to the interviews' transcription, your interview recording and any associated data will be destroyed. We will not use anything you said in the final reports and articles. If you decide to withdraw from the study after your interview has been transcribed and analyzed, your information will be part of the final reports and articles. However, we will not use any of your quotes as examples.

E. Confidentiality

Your participation and all information you provide will be confidential. We will transfer recordings to password-protected computer files for data analysis. All audio/video recordings and transcripts will be securely stored, and accessible only to us. X Winery will have access to the aggregated data, which will be set in such a way to ensure the protection of any participant's identity (pseudonyms will be used for all participants); the company will use this only for informational purposes, as to better understand their customers' preferences. To ensure confidentiality in any written or verbal form of the research results, we will replace your name with a pseudonym, and will change or omit any information that could potentially allow any disclosure of your identity. However, since there is a possibility of being identified in audio-videotapes, we do acknowledge some limits to confidentiality. Nonetheless, your informed and written consent to use the data for such purposes will be sought before hand. We will store all research data in password-protected files that only we can access. If you wish, we will provide copies of transcripts of recorded material in which you directly participated. If you object to anything in the transcript, you will have the option

of withdrawing from the research; whatever information you provided will be deleted.

F. Potential Risks and Potential Benefits

If you participate in this study, there are no risks greater than what you would experience in your daily life. Furthermore, during our interviews you might learn more about the wine industry, wine production, and the concept of sustainability.

G. Remuneration/Compensation

There is no remuneration for participants in this study.

H. Contact for further information about this study:

If you would like a copy of the summary of the results, please provide your address or email at the bottom of this form.

If you have additional questions, please contact us by email : annamma.joy@ubc.ca or camilo.pena@ubc.ca or by telephone at 250-807-8606 or 250-859-2719.

I. Contact for Concerns about the Rights of Research Subjects:

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Services at 1-877-822-8598 or the UBC Okanagan Research Services Office at 250-807-8832. It is also possible to contact the Research Participant Complaint Line by email (RSIL@ors.ubc.ca).

J: Consent:

Your participation in this study is entirely voluntary. You may refuse to participate or withdraw from the study at any time without any negative consequences.

I HAVE READ THE ABOVE AGREEMENT IN FULL AND UNDERSTAND ITS TERMS. I HAVE RECEIVED A COPY OF THE AGREEMENT FOR MY RECORDS. I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print)

SIGNATURE _____

DATE: _____

I consent to being audiotaped during the interviews: Yes_

No

I consent to being videotaped during the interviews: Yes_

No

I give permission to the use of video and audio recordings to reach general academic audiences:

Yes_

No

I give permission to the usage and storage of the images and photographs I provide during the second interview:

Yes_

No

If you wish to receive a copy of research summary results, please provide your address or email below:



Contact Letter

Participation in project on Taste Culture and Sensory mapping in the Wine industry in British Columbia (Experts)

Principal Investigator: Dr. Annamma Joy, Professor of Marketing, UBC Okanagan campus. Camilo Pena , my doctoral student will help in the data collection and analysis process.

Purpose: This is an academic program of research that aims to understand the motivations and sensory perceptions of wine consumption [chosen merlots] in the Okanagan Valley of BC. It is anticipated that the final results will be submitted for publication in a peer---reviewed management journal.

Study Procedures: If you choose to volunteer as a participant for this study, you must be 19 years or older.

As part of the research process, you will be invited to participate in the tasting and profiling (via sensory evaluations) of 10 different Merlot wines grown in the Okanagan Region. This should take approximately 1.5 hours. Once tasted, you will be asked to give your impressions and evaluation on the wines.

We also wish to inform you that we would like to use the data for making videos to present at conferences , class room teaching or to general audiences. Again, your written consent will be sought before hand and if you decline we will continue to value your participation in our research.

If you wish to participate in this study please do not hesitate to contact me at annamma.joy@ubc.ca or by phone at 250-807-

8606. Sincerely,

Dr Annamma Joy,
Professor of Marketing
Faculty of Management
UBC-Okanagan

Wine Experts Interview Guide

Wine consumption [biographical factors]

1. How did your interest in wine begin?
2. Do you drink other alcoholic drinks?
3. If you had a choice between beer, wine and other alcoholic drinks which would you prefer?
] Explain the contexts and your choice (s)
4. Do you drink wine daily, on weekends or at special occasions such as festivals, weddings, or graduations?
5. What type of wine do you prefer (let them talk and if not give some ideas, such as sparkling, still, dessert, red, white, rosé)?
On what occasions would you drink each of these?
6. What type of wine do you buy on a routine basis? What type would you buy for parties and (b) for celebrations? (if no ideas, suggest ->) (e.g., French, Italian, Okanagan, Sparkling, etc.)
7. Are there differences in wines you buy for yourself and for others? (let them answer and then follow with ->) Would price be a factor? (->) Would the person's level of knowledge of wine be a factor?
8. When you choose a wine, what are the main attributes and considerations you take? (->) What about terroir and wine regions, is this relevant for you? Do you have any preferences regarding this? (selective search / depth of analysis)
9. Do you go to wine festivals and special wine events? if so what kind of events do you like to attend (~~e.g. wine and food pairings etc.~~)?
10. Have you taken any wine-tasting courses? Which ones?
11. What do you think are the most important credentials for a wine expert?
12. Have you done any WSET courses? If so which ones? How useful were they in learning about wine? Do you think it is an essential credential to have?
13. Do you watch shows on wine consumption and/ or read magazines that contain articles on the wine industry and if so which ones and how often (e.g., once a week, month etc.)?

All this will be looking to explore the functional, symbolic, and sensorial dimensions of wine consumption, to investigate the many meanings they associate with drinking wine, in both public and private spheres.

Wine work/participation

1. Would you describe your job as “wine –related” ? or is wine related work done on the side?
Can you provide more details?
2. Have you participated or worked with any wine-related projects or events? Which ones in the last year?
3. Why do you participate in this?
4. Have you participated in projects organized by universities or other educational institutions?
5. Do you have contact with other stakeholders and/or organizations regarding the wine industry? With whom do you communicate most often?

Wine expertise (*Central part)

1. How would you describe your wine-related skills? How have you developed this wine-tasting skills other than what you have mentioned above?
2. How long has it taken you to reach this level of knowledge? What were the critical turning points in gaining this expertise?
3. What uses have you given and can you give to this knowledge and skill?
4. How would you compare yourself to an average wine consumer? What skills you consider that sets you apart from an average wine consumer?
5. (In this case we also want to consider the French culture and how it impacts their wine tasting skills/experience – how would they compare to tasting/experiencing wine in other cultures? (Spanish, Italian, English).
6. What do you find different in your wine tasting skills now compared to when you started tasting wine? (automaticity) **What has changed for you when tasting compared to 10 years ago?**
7. Do you follow a method/systemic process when tasting wines? (e.g. WSET) How would you (shortly) describe it / summarize it?
8. Does terroir and wine regions come out when you are tasting a wine? How?
9. Name a wine expert that you admire and describe her/ his level of expertise. How did s/he get there? Would you consider yourself within this category? Why? How have you build up your reputation so far?
10. Can we talk a little about the expertise levels of wine makers?
11. Are you close to wine makers in Canada ? [or any other country]. Does your closeness to wine makers help you in gaining reputation?

Part 2:

12. How would you differentiate wine (tasting) expertise as compared to expertise in other tasks involving mental and motor skills? Are there similarities as well? (If it is not clear, use examples such as learning to ski, ride a bike, drive a car, etc).
13. In wine tasting you use the eye, the nose and the palate primarily –although touch and feel maybe important as well. Can you talk about the sensory process development from the stage of novice to becoming an expert?
14. How do you continue to keep yourself sharp in terms of your expertise? Do you meet with other experts and do tasting exercises often? Do you take additional courses ?
15. How do normal consumers view experts especially in the context of wine?
16. Do you think that with new technology, consumers are educating themselves and so will not rely on experts on anymore?
17. What do you think will be the role of experts in the wine industry in the future?

Wine and sustainability – NATURE/TRACEABILITY

1. In your opinion, what is sustainability? What types of issues come to your mind when talking about this topic?
2. When you purchase a wine do you think about these different issues?
3. Why yes or why not?
4. Do average wine consumers ask about this? Why do you think?
5. Are there any other products for which you would consider these issues before deciding what to purchase?
6. How would you describe the differences between organic, biodynamic, natural, and conventional wines, if any.
7. In your opinion, are there any issues or improvement opportunities for the wine industry?

Specific to the wines tasted during the two tasting sessions

1. From your tasting experience, how would you classify and differentiate the wines you tasted for this study? How many groups and why? (category structures / classification process)
2. What is your opinion about the wines you tasted? Would you recommend any of the wines for other people to try? Why?
3. Did you recognize any of the wines? Did you relate any of the wines you tasted with some other wines you have tried in the past? (memory)

Interview Guide Vineyard Employees

Personal background

1. Where were you born?
2. How long have you lived in the community where you live now? (Okanagan Valley (OV))
3. Where did you live before?
4. Why and how did you ended up in the Okanagan Region?

Wine Topic

6. How long have you worked with wines?
7. How did your interest in wine come up?
8. Is it related to some of your areas of expertise?
9. Have you taken any particular training in the wine subject?
10. Is there anything else in terms of your personal background or interests that have provided you with additional expertise in this?

Wine industry and sustainability in the Okanagan Valley

1. How would you define sustainability and would this be related to the aforementioned challenges (both for your area and the general wine industry)?
2. How would you describe the wine producers in the Okanagan Valley?
3. Who are other relevant stakeholders in the wine production chain?
4. What are the challenges facing the development of the wine industry in the region?
5. How can these challenges be tackled?
6. *What is your role as part of the wine production chain?*
7. *How would you describe this role?*
8. *What challenges do you have and how can you tackle them?*
9. How do your organization deal with these sustainability issues? What specific initiatives are you implementing?
10. Do you implement any indicators and/or certification frameworks? Which ones and how?
11. How do you communicate this to your consumers and to other stakeholders?
12. What is your overall opinion regarding the sustainability of the wine industry in the Okanagan Valley? (In economic, ecological, social, political and other terms you consider important)

13. What programs or initiatives could help and further develop this?

Wine consumption in the Okanagan Valley (For Owners, Marketing, Sales, etc)

1. Who are the main consumers of wine in the OV?
2. What makes people buy wine in the OV?
3. What is your opinion regarding the current level of wine consumption in the OV?
4. Are people more interested in local or international wines in the OV?
5. What are the main attributes a consumer will consider when choosing between wines?
6. Do you perceive any interest from consumers in sustainability and other socio-environmental concerns in the ways wines are being produced?
7. What makes someone choose an OV wine versus an international wine, or vice versa?

Closing question

1. So, overall, what do you think is the role of wine in the OV? (In terms of environmental, cultural, economic, social, political aspects)

WINE CULTURE IN THE OKANAGAN REGION

Principal Investigator: Camilo Peña

Interview Schedule

This schedule is intended as a guide for conducting semi-structured interviews with connoisseurs, experts, academics, and other relevant actors in the Okanagan Valley's (OV) wine sector. The interviews will help to better understand different perspectives on wine industry and consumption locally. Permission will be sought to take audio recordings of the interviews. Some questions showed here might be general, and might be crafted into more particular ones connected to the interviewee's background and/or to the dynamics of the interview.

Personal background

- Where were you born?
- How long have you lived in the community where you live now? (Okanagan Valley)
- Where did you live before?
- Why and how did you ended up in the Okanagan Region?
- **Wine Topic**
- How long have you worked with the wine topic?
- How did your interest in wine come up?
- Is it related to some of your other areas of expertise?
- Have you taken any particular training in the wine subject?
- Is there anything else in terms of your personal background or interests that have provided you with additional expertise in this?
- Have you organized or worked with any wine-related projects or events? Which ones?
- Why do you participate in this?

- Is the institution where you are working supportive of this and how?
- Do you have contact with other stakeholders and/or organizations regarding the wine industry? With whom do you communicate most often?

- **Wine industry in the Okanagan Valley**

- Who are the wine producers in the Okanagan Valley?
- Who are other relevant stakeholders in the wine production chain?
- What are the challenges facing the development of the wine industry in the region?
- How can these challenges be tackled?
- How would you define sustainability and would this be related to the aforementioned challenges?
- What is your overall opinion regarding the sustainability of the wine industry in the Okanagan Valley? (In economic, ecological, social, political and other terms you consider important)
- What programs or initiatives could help and further develop this?

- **Wine consumption in the Okanagan Valley**

- Who are the main consumers of wine in the OV?
- What makes people buy wine in the OV?
- What is your opinion regarding the current level of wine consumption in the OV?
- Are people more interested in local or international wines in the OV?
- What are the main attributes a consumer will consider when choosing between wines?
- What makes someone choose an OV wine versus an international wine, or vice versa?

- **Closing question**

- So, overall, what do you think is the role of wine in the OV? (In terms of environmental, cultural, economic, social, political aspects)