Collective Networks and Communities of Practice: The transformation of the Priorat Wine Region

Elena Bou, Ph.D.

elena.bou@esade.edu GRACO Research Group ESADE

Alfons Sauguet, Ph.D.

alfons.sauquet@esade.edu GRACO Research Group ESADE

Rosella Canestrino, Ph.D.

Rosella.canestrino@uniparthenope.it Universita' degli Studi di Napoli "Parthenope"

Collective Networks and Communities of Practice: The transformation of the Priorat Wine Region

Abstract

One of the most interesting stories of the late 20th century winemaking was the rebirth of the Priorat region. Located in the north-eastern of Spain, Priorat has been completely transformed from a forgotten land into a top quality wine production district, becoming the second Spanish region, after Rioja, to be awarded Denomination de Origen Calificada (DOCa) status.

Previous studies about the Priorat have pointed out geographical and environmental reasons to explain regional success. Other works have remarked marketing and internationalization aspects in justifying the extraordinary gained results. However, our empirical data, obtained through different interviews with the main characters and through observation show evidence of other reasons. The aim of this paper is to better understand the evolution of the Priorat over time and to inquire about the key success factors that have fostered its results, affecting also regional social and economic ground.

Preliminary data show evidence that although there are many aspects which collide and contribute to this success, knowledge sharing and the development of a cluster or collective network play a crucial role. According to the above considerations, we have been able to identify those aspects that have fostered the rising of a local network, giving particular attention to knowledge sharing processes. First, our findings show that practice is the underlying key aspect which sustains the possibility of knowledge sharing. Second, there have been three mechanisms which have facilitated knowledge sharing within the network: the existence of boundary objects, the performance of a brokering role and finally, storytelling.

Introduction

One of the most interesting stories of the late 20th century winemaking was the rebirth of the Priorat region. Located in the north-eastern of Spain, Priorat has been completely transformed from a forgotten land into a top quality wine production district, becoming the second Spanish region, after Rioja, to be awarded Denomination de Origen Calificada (DOCa)¹ status. Through the Denomination de Origen Calificada, Spanish authorities identified Priorat as one of the two best viticulture sites in Spain. Nowadays the most expensive and worldwide well-known wines come from an isolated and even depressed region, able to "re-birth" in a space of only 20 years.

When the phylloxera ravaged Europe, in fact, the Priorat turned into economic collapse stagnating till the end of 70s, when a group of idealistic and young winemakers arrived in the region fostering its revival. Priorat's role within Spanish wine production, its domestic competition, as well as its position within the international market, is changed too. Not surprising, the regional evolution has attracted the attention of scholars and winemakers, both of them applied in to identify the milestones of such success.

According to the considerations above, the aim of this paper is double. On the one hand, we aim to get a better understanding of the main changes that have affected the Priorat over time and the impact that the last ones have had, not only on the wine industry, but also on the regional social and economic aspects as a whole. On the other hand, we aim to inquire about the key success factors that have contributed to achieve such outstanding results.

¹DO system is the Spanish system responsible for the classification and recognition of Spanish wine districts. DO system is controlled by INDO- Instituto Nactional de Denominaciones de Origen- under the direction of the Spanish Ministry of Agriculture. DOCa was introduced in 1991 and it is the highest quality category for Spanish wine (Source: Espavino webpage).

Pursuing these objectives we have conducted a case study on the Priorat. The empirical work is mainly based on qualitative methodology and it has resorted to different sources of gathering data: the analysis of secondary data (archives, records, documents and press analysis), observation and in-depth interviews. Eighteen in-depth interviews were conducted to the main characters and different participants of the cluster (agriculture people, wineries, public institutions, distributors and education parties). Moreover, they participated within the network at different stages and moments of time, covering the whole spectrum of different involved actors.

The paper is structured in the following way. First section explains Priorat case study, with a special emphasis for the milestones of its evolution and for the idiosyncratic aspects of its context. In the second, we clarify to what extent Priorat's case study is a success, analysing the consequences of the facts previously narrated. This second section will make evidence the scope of the changes which involve not only a business analysis but also a regional one. The third section presents how other authors have explained this kind of phenomena. At this stage we analyse to what extent traditional explanations are suitable and what aspects remain unanswered. This analysis leads us to the next section of the paper where we present our findings of our empirical work. According to the research preliminary results -the Priorat is a cluster understood as a community of practice and where knowledge sharing has been the key aspect to create and develop it. Here, different mechanisms which have allowed knowledge sharing are presented. Finally, conclusions and further research are presented.

1. The Priorat Case Study: Entrepreneurs, Passion, Tradition & Innovation

Priorat winemaking history begun in the 12th century with the Carthusian monks of Scala Dei (a monastery whose ruins still stand at the base of the Montsant mountains) originally called a priory, or *priorat* in Catalan -introduced the art of viticulture. For centuries, Carthusian monks protected the vineyards and villages in this area, and the monastery itself grew to a certain prestige before it was appropriated by the state in 1835. By this time wines occupied every corner of the mountains and they continued to be cultivated in small plots by the villagers.

At the end of the 19th century, the phylloxera epidemy destroyed all the vines production areas. These ones were replaced by almond, hazelnut and olive trees. Quality wine replanting started only at the beginning of the twentieth century with the dominance of grapes changing from Garnacha to Cariñena. By 1975 only 250 hectares of land was planted to wine and the villages were inhabited by a small, ageing population, as the latest generation moved to the cities to find job (Steevenson, 2004). The remaining small wine production was mainly devoted to coupage and the cooperatives used to sell raw wine to big cellars of nearby regions (e.g. Penedés).

In 1979 Rene Barbier, the current owner of Clos Mogador, arrived in the region driven by his interest in the potential quality production of the Priorat site. Born in nearby Tarragona and the son of a family with high tradition in the wine industry, he was the first to buy a small vineyard in the region.

Rene Barbier's story has been linked to wine since his birth. His family had owned 1.500 ha in the 19th century in Château Le Martinet, Vaucluse (Province). Due to the phylloxera and to the First World War they went to Spain. However, they come back to France during the Spanish civil war. At that time, Rene's family lost its land because of high debts and finally

they ruined in the 70's. The family also lost its brand associated now with the cellar Segura Viudas.

Rene studied in Bordeaux where he met Jean-Claude Berrouet (oenologist in Château Pétrus). He also met Antonio Palacios and started to work for the Palacios family in Rioja in 1980, at the Palacios Remondo winery.

When Rene arrived to Priorat he and a group of friends were coming the weekends and were making some wine in a small cellar from a neighbour. In Rene's worlds "we were a group of hippies making paellas and enjoying making wine for our own consumption but we knew we could do something good in the region" (Rene interview). His friends started to buy land close to Rene's house and for three vintages -1989, 1990 and 1991- the group pooled their grapes and share the same cellar (Clos Mogador) to make one wine that was released under five separate labels: Closs Mogador (by Rene Barbier); Mas Martinet (by Josè Luis Pèrez); Clos Erasmus (by Dafne Glorian); Clos de l'Obac (by Charles Pastrana) and L'Ermita (by Alvaro Palacios)².

Rene's and his friends began to think about starting up a true Priorat project in the region. The first group was originally formed by Rene and four friends of him: Alvaro Palacios, Carles Pastrana, Daphne Glorian and Jose Luis Perez. They may be considered the "pioneers" of Priorat evolution; the main characters of its story: the entrepreneurs.

Alvaro Palacios was one of the youngest boys of the Alvaro family from the important Cellar Palacios Remondo in Rioja. He also studied oenology in Bordeaux under tutelage of Jean-Pierre Moueix. He worked for the Palacios Cellar until 1992 as sales man, especially in the USA and French markets. He formally arrived to Priorat in 1990 when his friends bought him a small peace of land next to Rene's properties. He was only 24 at that time.

Carlos Pastrana was an old friend of Rene from Tarragona. He also believed in building a "serious" project in the Priorat region. He bought some land and started to organize the business, taking the responsibility for its production structure, financial and legal aspects.

Daphne Glorian was a close friend of Rene. She joined the group from the beginning buying land and making wine with her friends. She studied law in Paris and she worked for an English business selling French wines. She knew the market in France, Switzerland and the USA.

Jose Luis Perez was the last person joined to the team. Rene contacted him already thinking in building the Priorat project. Jose Luis was oenologist and professor in Falset high school, the only high school of the Priorat region. He knew many people in the region including the first director of the INCAVI (Institute of Catalan wines) and the major of Porrera, the main village of Priorat, and president of the DO Priorat.

In 1989, Rene and his friends self called the "closses" group made their first wine "Clos Mogador". They made only 240 bottles and although it was their really first experience producing wine they presented it as a very special wine coming directly from the Priorat terroir. They agreed to launch it onto the international market and sell it to 1500 pts (9 Euros) each bottle, a very high price for an unknown wine at that time. "It was a gentleman

² Sources: The New York Times (July 24, 2004)

agreement" says Rene. These first 240 bottles of wine emphasised the autochthon properties of the Priorat wine.

Even if Priorat revival depends on many and interrelated macro and micro-economic conditions, both scholars and practitioners agree in tracing-back a milestone for the regional evolution to the arrival of the five friends, with a passion for wine-making and a vision to reawaken an abandoned region.

"... all of them had a clear idea of what they wanted to do. Very clear. And although they were a few, it was much better than just one. My father's idea was this one: Not to start alone, but convincing as many people as possible and to try to sell wherever, mainly outside Spain" (Rene Barbier Jr.)

"We possessed the international knowledge as we had been doing it all the time, and we wanted to do a different product, to differentiate. Because, one thing which was clear was that we wanted to lead away from traditional frameworks (Rene Barbier)"

"I wanted to push my dreams of making a great Spanish wine, ... To start in Priorat you need character. We were a group of crazy romantics--because making wines in Priorat is difficult, it's not for profit." (Alvaro Palacios).³

As previously stated, at the beginning the Closses made the wine together; invested capital; combined their resources and started the local renaissance, believing in the same project and sharing their own knowledge.

"We formed our image" - Mr. Palacios said -"We considered Priorat much more important than our individual capacity to make great wine."

"We started in really difficult conditions. We started with an old tractor, which we were fixing with essentially paper clips and shoelace. Alvaro sold his motorbike. I sold my car" -(crf. Ms. Glorian interviews)

Not surprising, each actor was able to support the whole project by joint his resources and cognitive assets. Coming from old families with an ancient tradition in winemaking industry, both Rene Barbier and Alvaro Palacios had a very deep knowledge about soil properties and all the technical aspects related to fine wine production. They realised, through tasting local wines, the Priorat's potential to produce high quality wine, with a great ability to age.

Due to his academic background and job experience in Rioja, Rene developed a strong belief in the Project, addressing his contribution mainly on its production aspect. At same time, Jose Luis Perez provided the necessary oenological knowledge about fine wine making.

Markets competences mainly belong to Alvaro Palacios⁴ and Daphne Glorian activities. The first one worked a long as a salesman, especially in the USA and French markets, thus dedicating himself to the international promotion of the Priorat wine and to the attraction of American, French and British distributors into the Region. Daphne Glorian knew very well

³ Source: Wine Spectator February 2000.

⁴ Palacios was the first of the group to question the validity of their early decision to cut terraces into the steep hillsides to make it easier to tend the vines and harvest the grapes

French, Swiss and American markets too (at least she married an American wine distributor), thus fostering the temptation of selling Priorat wines on international markets.

Through a collective network, the five entrepreneurs built up the conditions for a reciprocal learning in order to pursuit a common goal. In this way, they advantaged from the established relationship and from the benefits connected to the knowledge transfer and sharing process. According to the above considerations, the following sentence is able to display all its meaning.

"It was very constructive for each of us" (crf. Mr Palacios interview).

After his first small wine production in 1989, Rene and Alvaro presented their wine in the Paris exhibition. It was an informal presentation as there was no Priorat stand in the exhibition. They knew a lot of wine industry key-actors and offered some bottles of Clos Mogador to them. Rene also tried a more direct-impact tactics, by inviting an important French-Jewish distributor to one of the best Paris restaurant to make him taste his wine.

"the first thing I did when I produced the first bottles was to go to the best restaurant of Paris -though I had no penny to pay for it- with a Jewish friend. I said: "well, you see. I have no Money at all, and I cannot afford this restaurant, but if they buy me the bottle, I pay". And he bought me the bottle and I had to pay it ...and I was a month without nearly eating" (Rene Barbier).

Rene's choice obtained so success that the main wine experts soon started to talk about the new wine coming from the unknown Priorat region. Christopher Clark, an English gentleman very well known in the industry, heard about Priorat wines reputation. He went to Priorat where he got acknowledge of local wine introducing it to the American wine critic Robert Parker.

Between 1991 and 1993 the group dispersed to set up new cellars or left the region completely. At that time, Priorat wine advantaged from the positive evaluation received by Robert Parker. In the middle of 90s, Parker qualified the Priorat wines as the best in world giving to the l'Ermita by Alvaro Palacios, the highest score ever awarded to a Spanish wine (Parker, 2002). As response, l'Ermita soon became the most well-known and expansive Spanish wine: in 1993 it was sold for 295.00 \$ a bottle (1,5 L); then years later the price reached 420.00 \$ for a bottle (1,5 L in 2003)⁵. In December 2000 Priorat was approved as Denominacion de Origen Calificada (DOCa) by the Generalitat de Catalunya.

Now that Priorat wines have captured the world's attention, many Spanish vineyards want to be in region. Ramon Llagostera quitted his job as an executive with PepsiCo in Barcelona and moved to his family's ancestral home in Priorat. His Mas Doix wine is made with the grapes from vineyards that have been in his family for five generations ⁶. At same time, other large companies like Freixenet and Torres have bough land to cash in on its popularity. Cava makers Freixenet and Codorniu and sherry producer Osborne, to name a few of the new players, have also planted hundreds of acres of terraced vineyards. Mas Perinet, funded by a group of Spanish investors, is among the largest wine estates in Priorat today.

6

⁵ Price classification is available at www.rarewineco.com (US importer Rare Wine Company)

⁶ Source: The New York Times (1 May, 2002), In Spain, old growths and new beginning.

Despite Priorat prevailing position, the passion and impetus of the very first project beginning still remains. In 2007, Priorat obtained its last recognition: Clos Mogador has been denominated first "chateau wine" in Catalonia which is an important sign of Spanish wine evolution aiming at establish a sense of continuity and a strong bet for the future development of the Priorat region as whole.

"Clos Modador by René Barbier, it has turned into the first "chateau wine" in Catalonia, a landmark which recognises the idiosyncrasy of the wine origin and their "special qualitative characteristics".".

At this stage, we could summarize the story of Priorat as a group of five entrepreneurs who through passion and hard work are able to combine tradition and new ways of producing and selling wine with extraordinary natural conditions. However, we would be losing one part of the story.

The Priorat case study leads away from individual efforts. On the contrary, it is an extraordinary example of how an entrepreneur adventure can mobilize a whole region producing outstanding results not only for a few people but for a collectivity. Indeed, this case study allows us to study the entrepreneur phenomena from a collective perspective.

According to the underlined point of view, the forecoming sections will explain to what extent the analysed entrepreneur initiative supported the regional growth of wealth and fostered positive spill over. Finally, the reasons and the key aspects of these outcomes will be explained.

2. The Priorat Success: evidence data

Mainly because of the underlined events, both economic and social changes affected the Priorat region which contributed for the 0,11% to the Catalan Gross Domestic Product, for the period 1998-2002 (the growth has been of 13,1% from 1998 to 2002)⁸.

Winery production has always been the core of the Priorat local economic activities, but when Phylloxera arrived in the late 1890s it negatively affected wine industry that was wiped out within five years. From 1887 to 1927 cultivated areas were reduced in more than 50%; while wine production was reduced in 73%.

The population of the county reached its optimum in 1887, a few years before the phylloxera plague, that hit all the vineyards; then the county had 27,461 inhabitants, but it started to decrease incessantly and since then it has lost the 62% of the population. The most important demographic decrease has been suffered by the historical Priorat. Between 1900 and 1970, the Priorat has lost a 45% of the population and, although in 1900 it had 22,635 inhabitants, in 1920 it had 20,740, 15,624 in 1940, 12,103 in 1970. Falset, the only settlement with more than 2,000 inhabitants, represents a 27,3% of the total county population ¹⁰.

⁸ Source: Dossier Comarcal de Priorat, Generalitat de Catalunya, Department de Comerc, Turism I Consum.

⁷ Source: Vanguardia (9 de abril de 2007)

⁹ A small part of the wine production survived to the crisis mainly due to few families that decided to stay in Priorat and the organization of cooperatives for the commercialization of the wine for mixing. In the 30's, 6 cooperatives were created in the region.

¹⁰ Source: Consell Comarcal del Priorat

Local population declined too because of the emigration towards the growing industry sites in Tarragona. As a consequence, in the 1978 Priorat was one of less populated regions in Catalonia, accounting for less than five inhab/Km². This situation changed significantly when Rene Barbier and his friends come to Priorat in 1989.

After few years the Priorat Project started up, the region signed the first positive value in the balance between emigration and immigration flows (1993-1994), but it was in 2000 (when Generalitat conferred Denomination de Origen Calificada del Priorat) that it reached the highest value registered from 1989. In the same year, Priorat had the lowest unemployment rate in Tarragona – 35,45% - the best value the Priorat has experienced since 1983 (See table 1).

Table 1 – Unemployment Index – Priorat

Years	Base 1991=100	Base 1996=100
_		
2004	47,55	49,11
2003	49,28	50,89
2002	45,82	47,32
2001	41,79	43,15
2000	35,45	36,61
1999	44,96	46,43
1998	62,54	64,58
1997	70,32	72,62
1996	96,83	100
1995	106,92	110,42
1994	111,82	115,48
1993	99,14	102,38
1992	101,15	104,46
1991	100	103,27
1990	98,56	101,79
1989	116,71	120,54
1988	146,11	150,89
1987	126,8	130,95
1986	102,88	106,25
1985	110,09	113,69
1984	90,49	93,45
1983	82,71	85,42

Source: Institut d'Estadística de Catalunya

About the 90% of new employment was related to wine industry what shows evidence of a direct consequence of the growth in the number of local cellar and wine bottles. In fact, Priorat's number of small private cellars has grown exponentially over the last two decades. After the pioneer's success many entrepreneurs moved to the region and built cellars: in 2006 the number of local cellars was 70 opposite to 10 units located in the Priorat in 1990.

Table n. 2 – Number of Local cellars

1990	1998	2000	2004	2005	2006	
10	23	30	38	61	70	

Source: different statistical databases

This growth is also due to Priorat wines reputation, and especially to Parker's article about the supremacy of Priorat wines (1991) which constitutes a milestone. After Parker's evaluation, Priorat acquired a strong reputation on both national and international markets, beginning to attract new entrepreneurs interested in local investments.

This reputation has also been supported by Spanish institutions who have made evidence the evolution of the quality of the harvest which varied from "poor" or "fair" ratings in the '70s to "good" and "excellent" in the end of '80s¹¹.

Table n. 3 – Quality of the Harvest

Year	'70	'71	•••	'79	'80	'81	'82	•••	'84	'85	'86	•••	'91	'92	'93	'94	'95	•••	'00	'01
Priorat	F	P		Е	Е	G	G		G	Е	G		G	Е	*	Е	*		*	*

Ratings: P= poor F= Fair G= Good

E= Excellent

*= Outstanding

(The symbol "-" indicates years previous to the Official D.O. status or, simply, not rated)

Source: Spanish wine page

In terms of internationalization, from 1989 to 2001 the number of wine bottles sold on internal market grew more than 70%; exports have grown in parallel to the region's reputation, increasing from 257,89 hl for the 1989 1990 to 4272,04 hl for 1998-1999. Sixty-six per cent of exports is addressed to EU, mainly to Germany, France and the United Kingdom, while the USA and Switzerland represent 69% of exports outside Europe (Steevenson, 2004).

Table 4 shows an overview of the main regional changing taking into account some key events in the Priorat historical evolution. As supported by data, entrepreneur's activity positively affected local economy through the reduction of unemployment rate, as well as fostering regional population growth. At same time (as we already underlined) local reputation (mainly evaluated by domestic market sales and export level) benefit a lot both by Parker communication efforts as well as by Denominacion de Origen Calificada. The last two events mainly affected external regional notorieties as it was supported by the high growth of local products international sales.

¹¹ Source: Wine Guide & DO Region of Spain, 2001

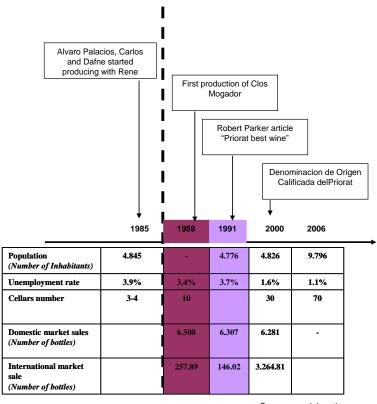


Table n.4 – Priorat main Changes: a general overview

Source: our elaboration

3. Traditional Explanations of Wine Industry Successes

It has been commonly accepted that wine quality depends on the soil, its structure and texture, as well as on climate and all the other aspects of the vineyard environment. Since only few experienced winemakers disagree with this statement, many authors (Seguin, 1986; Pomerol, 1984, Settler and Marocke, 1981), analysed the concept of "terroir", describing the way it may affect top quality wine production.

For a long time traditional winemakers referred to *terroir* only from a technological point of view, so that, as early as the second half of the seventeenth century, soil characteristics have been considered the most important factors able to affect grape production and the quality of wine at least.

Drawing on Seguin's definition of *terroir* as "an interactive ecosystem, in a given place, including climate, soil and wine (Seguin, 1986), Berry (1990) described the different components belonging to a particular *terroir*. According to this author, what makes a fine wine is a perfect combination of climate and soil structure: in a great *terroir*, the soil limits the effects of climate excesses and reduces vintage fluctuation at minimum, thus affecting the

¹² The term "terroir" is different from the idea of "soil" even dictionaries translate it as soil. It includes, in fact, warmth, humidity, rainfall patterns, fog, liability to frost, snow and ice, the exposure to sunlight and shelter from winds, thus encompassing the climate (Berry, 1990).

starting grape variety and quality. Grapes' quality always determines the class of wine, providing distinct smelling and tasting nuances to the final output.

"...there will always be Grand Cru sites, those sites that have the capability of producing truly great wine. There will also always be sites that are incapable of producing truly great wine, despite of man's greatest efforts" (Berry, 1990, pg. 17)...that's why, for example, Britain, Norway or Holland are not able to produce fine wine, as well as Brazil and Bolivia, at the other extreme.

According to the underlined perspectives, many scholars explained the existing linkage between the characteristics of an agricultural product (quality, taste, style) and its geographic origin, which might influence these characteristics. Natural environmental dimensions, in other words, have been considered in terms of their interaction with winemaking process (Berry, 1990; Ocana and Guerriero, 2006).

In line with this tradition, climate conditions (macro-climate and meso-climate and micro-climate) and soil distinctiveness have been deeply analysed both from a *geological* (Pomerol, 1989; Wilson, 1998, Seguin;1986) and *pedological* perspective (Galet, 1983; Winkler et. al., 1974) as well as from an *agronomic* one (Van Leeuwen, Seguin, 2006).

However, nowadays a strong debate arises, mainly referring to the relationship between soil properties and wine quality and to the *terroir* notion.

Concerning to the first controversial aspect, empirical evidences do not support the direct correlation between soil type or climate conditions and fine wine production. While, in fact, in some regions, there is a rather good correspondence between the geological sediment and the quality of the wines produced on it, in most other regions, the link between geology and wine quality is less obvious (Seguin, 1983).

Not surprisingly, the debate over the correlation between *terroir* – and whether it even exists – and specific sensory properties of wine is most often between the so-called "Old World" (European) and "New World" (non-European, most notably California and Australia) wine producers. Old World advocates cite classifications of wine quality and traits based upon the location in which it is grown going back at least two millennia to Roman times. Their strongest current-day examples of *terroir* are usually drawn from the French Appellation d'Origine Controlee system, which codified many centuries of experience of the correlation between wines and terroir.

New World critics often characterize the *terroir* concept as scientifically unfounded and self-serving. They see it as simply a means by which certain Old World producers can maintain and perpetuate their exclusive franchises and the economic rewards, which accompany them. The effect of the soil on vine behaviour and grape composition is very complex. As a consequence, it seems not possible to equate a soil map of a given region with a map of quality potential for wine-growing (Van Leeuwen, 1989). Moreover, what it is true is that excellent wines may arise from very different soils. As Jackson (1994) pointed out, even the maintenance of regulated appellations may be considered a device to advance European producers and their financial rewards.

Those who have studied the elements of *terroir* for years still cannot fully explain the nuances which consistently differentiate the wines coming from a specific region or district, first of all

because wine production results from the complex combination of both macro-economic conditions and managerial efforts.

No vineyard may exist without the intervention of mankind; human dimension interacts with environment becoming itself an essential component of *terroir*. Moreover, the recent international success of Californian or Australian wines also seems to mine the nature-based definition of *terroir*.

According to these observations, a new and widen *terroir* concept arised¹³ in more recent years. Human factors, such as history, socio-economics, as well as culture, belong to the concept of *terroir*. The "territory" became, in this sense, the populated and settled space where people act and share the same values and beliefs. It is the geographical place representative of local collective identity and memory.

The territory turns into a *territorial society* identified by common residence and formed by demographic features, a concept closely connected to the so-called "conscience" *terroir*, as it was defined by Vadour (2002). The "conscience" *terroir* corresponds to various ethnological, sociological and cultural meanings of a geographical place. The *terroir* has both mythical (Dupuy, 1989) and cultural features which may be even regarded as "so characteristic of second-class French thinkers: a combination of the obvious ... and the mystical" (Hancock, 1999, p. 43).

Human factors, such as history, socio-economics, as well as culture, belong to the concept of terroir. The "territory" became, in this sense, the populated and settled space where people act and share the same values and beliefs. It is the geographical place representative of local collective identity and memory. The territory turns into a territorial society identified by common residence and formed by demographic features, a concept closely connected to the so-called "conscience" terroir, as it was defined by Vadour (2002). The "conscience" terroir corresponds to various ethnological, sociological and cultural meanings of a geographical place. The terroir has both mythical (Dupuy, 1989) and cultural features which may be even regarded as "so characteristic of second-class French thinkers: a combination of the obvious ... and the mystical" (Hancock, 1999, p. 43).

Taking into account the different theoretical approaches that may be used to analyse wine production, many scholars have analysed Priorat recent success from an ecophysiological point of view. They have explained that Priorat's success is due to its location; its Mediterranean climate and soil good drainage properties which favoured grapes growth (Ramos, Cots, Martinez- Casasnovas, 2007a; Ramos, Cots, Martinez- Casasnovas, 2007b). The land is organised in "terraces" and is able to affect water dynamics (Ramos, Cots, Martinez- Casasnovas, 2007a; Ramos, Cots, Martinez- Casasnovas, 2007b) and thanks to good drainage qualities rainfall does not create damp soils (Steevenson, 2004).

Despite the relevance of geographical studies, however, they seem not sufficient to deeply understand the reasons of the success that Priorat has experienced for the last years.

¹⁴ The ecophysiological approaches refers to the *terroir* as the interaction between the macro and meso-climate and the edaphical environment (= the physical and chemical properties of the soil which affect plants growing in that soil) (Lebon, 1993; Carbonneau, 1997).

¹³ Leewen and Seguin (2006) consider human factors, such as history, socio-economic and viticultural techniques as part of terroir. In spite of this, the authors focus more on the "labour" meaning of human dimension, analysing it from a macro-economic point of view.

First of all, the emphasis posed on "terroir" notion and soil structure often lead scholars to underestimate the relevance of entrepreneurial activities in the affecting fine wine production. In other words, even if we agree with the logical correlation between environmental conditions and fine wine productions, we also believe that Priorat experience cannot be fully understood without considering the interrelation of human dimension with the givens of the natural world.

Empirical evidence shows that no good wine may be developed in marginal vineyard sites¹⁵. At the same time, a good vineyard site is able to produce both excellence and poor wine during time. Not surprising, rating assessed to wines by quality control systems, like, for example, DO system, vary year by year, reflecting the changes both in the grapes and in wines manufacturing process.

As we have already underlined, in only 17 years Priorat wine has became one of the most appreciated wine in the world. According to Robert Parker's classification, 5 Priorat wines resulted "the best" for the 2007:

Table n. 6: Robert Parker's Classification (2007)

Wines	Harvest (points)				
Clos Erasmus 2004 (DOCa Priorat)	100				
Clos Erasmus 2003 (DOCa Priorat)	99				
Doix Coster de Vinyes Valles 2004 (DOCa Priorat)	98				
Nit de Nin 2004 (DOCa Priorat)	98				
L'Ermita 2004 (DOCa Priorat)	98				

Source: Robert Parker's webpage

Since soil structure or climate couldn't vary significantly in such a short time, the revival of Priorat poses the need to deeply investigate the reasons of such success.

First, we support the idea that Priorat success lies, not only on the quantities and proportions of minerals available in a site or on other macro-economic conditions, but also on *winemakers competencies* and their *managerial efforts*. Organising grape architecture, pruning or shaping the details are only some examples of human activities able to affect wine production; sales competences, as well as managers networking ability may be considered the "stones" of market presence and reputation.

Second, managerial efforts are not enough to explain such a success in such little time. Priorat success involves mobilizing a collectivity, building a well-knit network. It involves identifying key players (agriculture people, wineries, public institutions, education system and university, politicians, prescriptors and so on) and engaged them in a common project. In fact, the Priorat meets the characteristics any cluster should have: it is geographically concentrated; it is specialized around a core activity or industry; there are a huge variety of actors; it is dynamic and evolves through time; it is embedded within a larger social environment and finally, there are externalities generated by the group.

Third, even clustering activities are not good enough to justify its results. Indeed, many initiatives of this type have been put in practice –with little successes by the way. Industrial

 $^{^{15}}$ We define as "marginal", those sites where macro-economic conditions make difficult for grapes to reach a complete maturation.

districts, regional clusters and so on are examples of this type of efforts. However, what is so special in this case study to make it a reference? How could Priorat achieve such business and regional results in such little time?

Empirical data show that one explanation lies in the ability that René Barbier and his friends had to develop a successful network based on knowledge sharing. However, knowledge sharing could not be straightforwardly shared unless practice is shared beforehand. That is why, practice in this case plays a crucial role and indeed, as a result of all the effort, the Priorat turned to be a cluster as a network of practice.

"... (In relationship to a common way to work) ...we share a common framework... there is a common idea of what is quality, a common idea of the type of wine. However, it is not explained yet, it is not written... We share the common idea of how to preserve the landscape, the vineyards, and how to manage the different types of production and the general type of product... All of us have the same ideas about it." (Interview to MN)

"... people have seen the vineyard for ages. They knew they had a great potential but... till people from outside with new ideas didn't come ...(nothing happened)" (Interview to JV)

"... we did not know how to do it..." (Interview to JS)

4. Priorat: The Creation of a Cluster as a Community of Practice

Academics are trying to extend their understanding about the importance of the relationships between individuals and firms within clusters, with a specific focus on knowledge exchanges. Knowledge diffusion within the boundaries of a cluster has been mainly analyzed by economists, who developed the theory of knowledge spillovers to tackle this topic (Jaffe, Trajtenberg et al. 1993; Appleyard 1996; Audretsch and Feldman 1996; Breschi and Lissoni 2001). Knowledge spillovers have been defined as an externality bounded in space, which allow companies operating close to important knowledge sources, such as research institutes or universities, to share knowledge and in consequence introduce innovations faster than the peripheral firms located in different regions.

According to the recent theory of ecologies of knowledge, Brown and Duguid (2000) sustain that knowledge cannot be straightforwardly shared unless practice is shared beforehand. In order to better comprehend knowledge flows, Brown and Duguid (2000) called for a better understanding of the human interaction, where practice is said to perform a crucial role. The spaces where humans share knowledge, learn and interact, due to a shared practice, are defined communities of practice (CoPs) (Wenger 1998). These "informal" spaces can be usually found within firms. However, people also link to others who share their same practice but are located in other firms, and these arrangements are called networks of practice (NoPs). Because the members of these networks share a great deal of common practice, they share an implicit understanding and therefore, ideas and knowledge can circulate.

The network-of-practice connections link each community of practice within a firm to communities of similar practices located in other organisations. The links in such networks may be distant, a fact that can put limits on the amount of knowledge that can be shared. But such links can also be close, as they in fact tend to be within clusters, providing the density that allows for proximity and interaction. As a consequence, knowledge may "travel" between

and among organizations, fastened by interpersonal relations (Brown and Duguid 2000). Nevertheless, the theory of ecologies of knowledge focuses on links between communities with similar practices, leaving without explanation the mechanisms for facilitating knowledge flows across the epistemic gulfs between the dissimilar practices that also coexist in clusters of firms.

Indeed, this is a crucial aspect to analyze in the Priorat. The "pioneer" group of entrepreneurs and at the same time "outsiders" combined their capabilities, knowledge, passion, and resources starting joint efforts in order to take advantage of the inner propensity of the Priorat for producing fine quality wine. In doing so, they had to connect to the local winegrowers, a totally different community, who owned the basic material for the production, the vineyards. The communication to the winegrowers initially represented one of the main problems the winemakers from outside the region had to face, on the top of other considerable issues, such as resources, sales, and getting international recognition of the end product. The group of winemakers was seen as newcomers and their ideas about growing vineyards and producing wine (which included getting rid of some plants, throwing out some of the grapes, amongst others) were not understood and well received at the beginning. Therefore, sharing their knowledge about wine production with winegrowers of the old population was a major challenge and a necessity as well.

In order to increase our understanding about the formerly raised challenge, we start from Etienne Wenger's (1998) theory for sharing knowledge between different practices. According to him, Communities of Practice and also Networks of Practice (NoPs) are separated by boundaries established by the different practices in which they engage in. The way in which these CoPs can collaborate, share knowledge and engage in joint activities is through what Wenger called boundary connections. These connections can be basically of two types: boundary objects and brokering (Wenger 1998). However, we will add another form: stories and narratives. The three of them are present in this story.

The "terroir" as a boundary object

Susan Leigh Star and James Griesemer introduced the term "boundary object" to refer to "those scientific objects which both inhabit several intersecting social worlds and satisfy the informational requirements of each. Boundary objects are both plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. They are weakly structured in common use, and become strongly structured in individual-site use. They may be abstract or concrete. They have different meanings in different social worlds but their structure is common enough to more than one world to make them recognizable means of translation. The creation and management of boundary objects is key in developing and maintaining coherence across intersecting social worlds." (Star and Griesemer 1989, p. 508).

Boundary objects, the first type of connection between dissimilar practices, are thus those objects useful to coordinate the different perspectives and points of view of various practices, driving them toward a specific and common purpose. Not all objects can act as boundary objects. However, to the degree that an object belongs to multiple practices and acts as the carrier and nexus of multiple perspectives, it has the potential of becoming a boundary object (Wenger 1998).

This theoretical framework helps us to identify that the group of pioneers created, unconsciously, a boundary object to close the gap between different groups. They used the concept of "terroir" and they gave it meaning. "Terroir" in Priorat means soil, weather, means family and roots, means tradition and hard work and means emotions: pride and love for the land and the wine. René Barbier, together with the local people, were able to create this collective concept. It was something tacit. A concept whose meaning is linked to them, their land and their story. Hence, the *terroir* became like "glue" able to connect local producers and thanks to which local knowledge may diffuse. As a consequence, the *terroir* output cannot be produced everywhere, thus originating from local tradition and experience, as well as from regional history and culture

According to the highlighted perspective and, as it was emerged by the different interviews we conducted, people coming from Priorat are locally "embedded". They feel themselves as part of the *terroir*, of its history and its tradition. These facts seem to be partly re-calling the original Marshallian expression of "*industrial atmosphere*".

A set of social and productive features, in fact, constitute the Marshallian (1920) notion of local system and its qualification as a cognitive system. A system of values and norms – dominated by a spirit of initiative and largely reflected in the main aspects of life– produces a cultural environment favourable to economic initiatives, influencing industrial relations and the activities of local institutions as well.

Depending on the above considerations, it is therefore easy to understand why local society in Priorat identifies with the *territory*, rather than with the *company*, as happens in industrial poles dominated by large-size firms. The symbolic meaning given to land makes impossible to understand Priorat success without considering the way people pursuit the same object and share their own knowledge.

René Barbier, the broker

The empirical data shows the predominant role of René Barbier. It is surprising to realize that despite the fact that he is not local he has won the respect and admiration of the local people. Indeed, he is legitimized by his pedigree, his roots (his family had been in the wine business for many years); his academic background and knowledge and finally, his professional experience in the industry. As it emerged from the collected interviews Rene' Barbier had always respected the local people from the very first beginning. He had appreciated their work and as a signal of it he paid much more money for the grapes than others. He was able to speak to the local agriculture people and at the same time, to talk to distributors, evangelists or other actors. He connecting different practices, what makes him a broker.

"... they did not see them as intruders... no, because they were people who love the land. They were not here to make money, to exploit and take advantage from the region. No, because when they bought grapes, they paid for them much more than what it was considered then." (MR's interview)

Brokering is the second type of connection between different practices. It is the result of transferring knowledge to different practices by an actor that is a recognized member of them. This actor may, therefore, introduce elements of one practice into another, and also enable coordination. The brokering is a very complex activity because it involves translation,

coordination, and alignment of different perspectives (Wenger 1998). Brokering can take various forms, including boundary spanners, roamers, and pairs (Wenger 2000), but they all have in common the basic idea of people spanning boundaries and connecting various perspectives.

René was not the only broker. This role was also developed by other entrepreneurs, who saw the good results René was obtaining. It was an exhaustive and slow role which was connected with their daily routines of their practice. This was crucial for their success.

"... You had to work with them. You had to be with them (she refers to agriculture people) day after day. You had to show them and feel respectful with them. I spent four years working the whole day in the cultivated fields... I had more than 100 of those...." (SP's interview)

Storytelling: heroes, locals and a common crusade against villains and disgrace

Finally, another interesting mechanism is storytelling. Narratives can play a crucial role in knowledge sharing and they can foster the creation of a common identity. Previous studies have stressed the fact that narratives (Czarniawska, 2004) play a central role as a way to persuade entrepreneurs for action. How narratives are designed and evolved through time reflect the evolution of this community of practice and its members.

In this case, at the same time the cluster arised and evolved through time, a story is being developed. Nowadays, all the members of the cluster (agriculture, education partners, institutions, the entrepreneurs, and the local people from the wineries) share the same story. This story is not written or studied, but it is the "output" of collective meanings shared by all of them. It is the way they interpret what happened in the local context.

The way this story is designed and transmitted meets the epic literary style. We have the heroes (the entrepreneurs lead by René Barbier), and the local people (which supported them and have suffered the adverse conditions during years). They well-knew about their *terroir* valuable properties, so all the actors collaborated in order to overcome the disgrace.

Priorat was originally a poor land, where grapes and wine were undervalued; people were obliged to leave their roots and the territory was unpopulated. However, due to the entrepreneurs arrival, that brought them new ideas, new ways of understanding wine production rapidly diffused and local reputation began to be established; thanks to all the involved actors' efforts, local people were able, not only to survive at the external adversities, but also to play a key role in the industry and regional renewal. As one of the interviewee stated "... I was in love. I am still in love. I love the vineyards and now there has been an unbelievable evolution... Personally, it was a real shock, I have to confess it. ...". Their dream came true.

However, the most important aspect of the *story* (or stories since more than one exists, but is not our purpose describe each of them) is not the literary style or if the facts are true or not. Stories are relevant because of the role they play. They have helped the entrepreneurs to build the community and to create their identity. Besides, they have been a tool for sharing knowledge about the wine industry: how to cultivate the grapes and produce better wine. They are situated stories that only if you belong to their context you will get their comprehensive meaning.

5. Conclusions

In 2000 Priorat became the second region in Spain, after Rioja, to obtain the Denomination de Origen Calificada (DOCa), transforming itself from a forgotten region into a top quality wine production area: in a very short time local wine has became one of the most well-known and expensive wine in the world. According to that, our paper pursues a double aim: firstly it get a deep understanding of Priorat evolution, as well as the main changes that affected local economic conditions (with reference to social and economic dimensions like for ex.: population growth, unemployment rate, etc.) during time (first and second section); secondly, it explains the main features that supported Priorat success (third and fourth section).

Starting from the traditional approach to the explanation of wine industry success, our work provides a different perspective by analysing the Priorat from a knowledge point of view. The empirical evidence leads us to identify the Priorat cluster as a "Community of Practice" (CoPs). In doing that, we identify the stones of its success in those elements (boundary objects, brokering activities, as well as stories and narratives development) able to foster knowledge transfer and sharing inside and between the communities of practice.

In the Priorat, in fact, some "pioneers" created, unconsciously, a boundary object to close the knowledge gap between different local groups. In doing this, they used the concept of "terroir" giving it a symbolic meaning; brokering activities were also held by Rene', as well as by his friends, giving rise to a transfer of both knowledge and practices; storytelling, finally, took place, fostering local creativity and the consolidation of a common identity.

The gained results represent the first output of a widen research actually ongoing within the GRACO group at ESADE Business School (Barcelona). Depending on that, further analysis will mainly belong to the ongoing project, in order to deeply explore how the institutionalisation of a Community of Practice may support learning process and knowledge sharing within a regional cluster, thus fostering local evolution at least.

Even embedded in the local context, the underlined results may be considered as guidelines to interpret other success or un-success initiatives. Regional clusters are present all around the world: they specialise in different activities, some of them gain success, other ones decline and are not able to survive under the pressure of the international competition. Understanding the features that make some practice success or un-success may support both firms and institutions, providing them an empirical background, an "example" to take into account in starting or even into supporting local actions.

References

- Alward D.K. (2003), A documentary of innovation support among New World wine industries, *Journal of Wine Research*, Volume 14, n. 1 Pages, 31-43
- Appleyard, M. (1996), 'How does knowledge flow? Inter-firm patterns in the semiconductor industry', *Strategic management Journal*, vol. 17, Special Issue, Pages. 137-154.
- Audretsch, D. B. and M. P. Feldman. (1996). R&D Spillovers and the Geography of Innovation and Production, *American Economic Review*, Volume 86, Pages 630-640.
- Berry M.W. (1990), The importance of Soil in wine production, Journal of Wine Research, Volume 1, Issue 2, Pages 179- 195
- Bohmrich, R. (1996) Terroir: competing perspectives on the roles of soil, climate and people, *Journal of Wine Research*, 7(1), 33.
- Breschi S, . Lissoni F., (2001) Knowledge Spillovers and Local Innovation Systems: A Critical Survey, *Industrial and Corporate Change*, Volume 10, Pages 975-1005, (LIUC working
- Brown, J. S., & Duguid, P. (1991). Organizational Learning and Communities of Practice: Toward a Unified View of Working, Learning, and Innovation. *Organization Science*, 2(1), 40-57.
- Brown, J. S. & Duguid, P (2000). *The social life of information*. Harvard Business School Press, Boston.
- Carbonneau A. (1997) Interactions 'terroir 3 vigne': facteurs de mai^trise du micro environnement et de la physiologie de la plante en rapport avec le niveau de maturite' et les e'le'ments de typicite', in: *Proceedings 1er Coll. Int. 'Les Terroirs Viticoles'*, Angers (France), Angers-Montpellier: INRA, 147–153
- Cots-Folch, J.A. Martínez-Casasnovas J.A, Ramos M.C. (2006), Land terracing for new vineyard plantations in the north-eastern Spanish Mediterranean region: Landscape effects of the EU Council Regulation policy for vineyards' restructuring, *Agriculture*, *Ecosystems & Environment*, Volume 115, Issues 1-4, July, Pages 88-96
- Czarniawska, B. (2004) On time, space, and Action Nets. *Organization*, Volume 11, n. 6, Pages 773-791.
- Dupuy H. (1989), Terroirs et Memorires: genealogie d'un mythe national, *Espace Temps*, Paris, Volume 42, Pages 23-40
- Elliott-Fisk, D. (1993) Viticultural soils of California, with special reference to the Napa Valley, *Journal of Wine Research*, 4(2), 67–77.
- Evans A., Miller M.M. (2000), Industrial Cluster as economic development tools: an analysis of the Texas wine industry, *Economic Development Review*, Summer

- Galet P. (1983), Precis de viticulture, Imprimerie Dehan, Montpellier
- Hancock, J.M. (1998) What makes good wine? Climate versus terroir in determining wine-quality, *Science Spectra*, 15, 74–79.
- Hancock, J.M. (1999) Terroir: the role of geology, climate, and culture in the making of French wines by James E. Wilson, Feature review, *Journal of Wine Research*, 10(1), 43–49.
- Hancock, J.M. and Price M. (1990) Real chalk balances the water supply, *Journal of Wine Research*, 1(1), 45–60.
- Jackson R. (1994), Wine Science, Academic Press Inc., San Diego
- Jaffe A.B., Trajtenberg M. et a. (1993), Geographical localisation of knowledge spill over as evidenced by patent citation, *Quarterly Journal of Economic*, Volume 108, Pages 577-598
- Lebon, E. (1993) De l'influence des facteurs pe'do-et me'soclimatiques sur le comportement de la vigne et les caracte'ristiques du raisin. Application a` l'e'tablissement de crite`res de zonage des potentialite's qualitatives en vignoble a` climat semi-continental (Alsace), PhD thesis, Universite' de Bourgogne, Dijon
- Leeuwen C.V., Seguin G. (2006), The concept of Terroir in viticulture, *Journal of Wine Research*, Volume 17, n.1, Pages 1-10
- Marshall, A.(1920) *Principles of Economics: An Introductory Volume*, 8th edn. Macmillan, London
- Montero F. J., Ramos A.B. (2005), Land and water use management in vine growing by using geographic information systems in Castilla-La Mancha, Spain *Agricultural Water Management*, Volume 77, Issues 1-3, August, Pages 82-95
- Ocaña S. M., Guerrero I.C. (2006) Comparison of analytical and on site temperature results on Spanish traditional wine cellars *Applied Thermal Engineering*, Volume 26, Issue 7, May, Pages 700-708
- Odorici V., Corrado R. (2004) Between Supply and Demand: intermediaries, social networks and the construction of quality in the Italian wine industry, Journal of *Management and Governance*, Volume 8, Pages 149-171
- Pomerol C. (1984), Terroirs et vins de France, Total edition Press, Paris
- Pomerol, C. (1989), L'évolution du Bassin Parisien. In: Association des Sédimentologistes français Dynamique et méthodes d'étude des bassins sédimentaires, Editions Technique, Paris, 165–178
- Ramos M. C., Martínez-Casasnovas J. A. (2007), Soil loss and soil water content affected by land levelling in Penedès vineyards, NE Spain, *Catena*, Volume 71, Issue 2, 15 October, Pages 210-217
- Ramos M.C., Cots-Folch R, Martínez-Casasnovas J.A., (2007 a), Effects of land terracing on soil properties in the Priorat region in Northeastern Spain: A multivariate analysis *Geoderma*, Volume 142, Issues 3-4, December, Pages 251-261
- Ramos M.C., Cots-Folch R, Martínez-Casasnovas J.A., (2007, b) Sustainability of modern land terracing for vineyard plantation in a Mediterranean mountain environment The case of the Priorat region (NE Spain) *Geomorphology*, Volume 86, Issues 1-2,15 April , Pages 1-11

- Seguin, G., (1983), The influence of vineyard soils on the composition and quality of harvested grapes. *Bulletin de I'OIV*, Issue 56, Pages 3-18
- Seguin, G. (1986) 'Terroirs' and pedology of wine growing, *Experientia*, Basel: Birkha"user-Verlag Basel, 42, 861–872
- Settler, Marocke (1981), Terroir et vins d'Aslace, *Sciences Geologiques*, Volume 34, Pages 151-177
- Smart R. (1993), Canopy Management: can it turn ordinary quality wineyards into distinguished ones?, *Journal of Wine Research*, Volume 4, Issue 1, Pages 1-5
- Star, S. L., and Griesemer, J. R. (1989). Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-1930, *Social Studies of Science*, Volume 19, Pages 387-420
- Steevenson M.W. L. (2004), A study of the revival of Priorat and its contemporary challenges, *Journal of Wine Research*, Volume 15, n.1, Pages 65-84
- Vadour E (2002), The quality of grapes and wine in relation to geography: notion of terroir at various scales, *Journal of Wine Research*, Volume 13, n. 2, Pages 117-141
- Vadour E., Shaw A.B. (2005), A Worldwide Perspective on Viticultural Zoning, *Journal of Enology and Viticulture*, Volume 26, n. 2
- Van Leewen C., Seguin G. (2006), The Concept of Terroir in Viticultura, *Journal of Wine Research*, Volume 17, n. 1, Pages 1-10
- Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge University Press, Cambridge, UK
- Wenger, E. (2000). Communities of Practice and Social Learning, *Systems. Organization*, Volume 7 n.2, Pages 225-256.
- Wilson J.E. (1998), Terroir. The role of geology, climate and culture in making of French wines, *Journal of Wine Research*, Volume 10, n.1, Pages 43-49
- Winkler et. Al (1974), General Viticulture, University of California Press, Berkley, CA