

Foreword

Oak has been used as a receptacle for wine since time immemorial. More popular than chestnut or acacia, oak is employed for winemaking, ageing and transporting wine; moreover, in the hands of talented winemakers, it becomes the crucible in which fine wines are painstakingly crafted.

Empirical observation combined with scientific findings help us explain oak's influence on the sensory characteristics of wine. The nature of the aroma compounds found in wood has been progressively established, providing some clues to the origin of coconut, vanilla or smoky notes. More recently, the wood components linked with the impression of sweetness and bitterness have been identified. Today we have a better understanding of the impact that different species of *Quercus* sp. (pedunculata, sessile, white) can have on wine's organoleptic qualities, and the potential effects of seasoning green staves and toasting wine barrels in different ways.

Wood does much more than simply imparting numerous aromatic and gustatory compounds to wine. Permeable for oxygen, it is also the source of certain natural chemical phenomena that are almost magical. Take for example the barrel ageing of red wine. The gradual oxygenation due to the wood's porosity gives the wine a darker hue and reduces its astringency. The empyreumatic notes of roast coffee (sometimes indicative of wine aged in new barrels) certainly comes from the wine itself, but even more so from its odourless elements which are transformed by barrel ageing into highly odorous compounds. The orange peel notes found in sweet wines made from nobly rotted grapes are created by what is known as an aromatic accord (a phenomenon recognised in perfumery): the taster simultaneously

perceives the wood's aroma compounds (coconut and clove) along with those of the wine.

Thus it can be said that oak is a major factor in terms of wine quality. However, this combination can only be truly successful if new oak is used in moderation. Coopers themselves have gone on the record: "The barrel does not create the quality of a wine itself, but rather, it reveals it²." Furthermore, if poorly looked after, wood barrels can be a dangerous source of micro-organisms that can cause wine spoilage.

Oak sits alongside the *Nez du Vin* masterkit of 54 aromas. In this book, Léa Desportes has made rigorous use of her talents, faithfully describing the steps involved in barrel making and revealing the coopers' skills. She highlights the critical decisions facing a winemaker looking to improve his or her wine by barrel ageing. The reader is invited to deepen their understanding of wood's influence on wine by turning these pages, before verifying what they have learned by tasting.

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2. Bernard Cordier, in: *Le bois et le vin, trafic d'influences, L'Amateur de Bordeaux*, n° 57, 1997.

Preface

Using oak barrels to make, age and transport wine is as old as time. However, modern day cooperages now combine tradition with innovation, the sound of hammer blows mingling with the hum of machines. Research has become part of the subtle alchemy of wood and wine, and historic practices now have a scientific basis. Our understanding of oak's mechanisms and effects on grape juice have progressed in leaps and bounds, making it necessary to update the text and aromas of the first edition of *Le Nez du Vin* dedicated to oak barrels, published back in 2004. The book has been entirely rewritten in the light of the most recent discoveries in history, silviculture and chemistry which help explain and master variations in intensity and quality of oak character.

Oak ageing changes wine's organoleptic qualities and as a result it also changes the visual, olfactory and gustatory appreciation of the wine taster. Wood barrels convey a certain image and the preconceived ideas associated with them influence the tasting experience. We wanted to lay to rest one such idea, namely that oak barrels simply add notes of vanilla and spice, plus that all-important mention on the label that can boost the wine's price point.

It is true that oak is expensive, so its use is limited to those producers who can justify their wines' positioning. However, oak's primary function is to add value to the wine itself, rather than simply adding to the cost of the bottle. Oak helps stabilise the wine, enhancing its structure and adding complexity in preparation for a period of maturing in cellar; it represents a step in the process rather than an end in itself. And the longer the ageing process, the longer the wait until the bottle can finally be opened, as the wood's aromas and tannins need sufficient time to integrate with those of the precious nectar.

Successful ageing reveals the intrinsic qualities of the wine, allowing the fullest expression of varietal character and typicity, terroir and vintage, and this is why oak barrels are not suited to all wines.

Fortunately, there is a wealth of vessels made of many different materials: stainless or enamelled steel tanks, concrete tanks lined with epoxy resin or fibreglass, earthenware jars and amphoras, and so on. Oak should never be used to compensate for a lack of aroma or flavour. Rather, it is a subtle tool; the name of the game is discretion, not domination.

It was important for us then to set the record straight. When too obvious, oak is overpowering but when used in moderation, its presence is barely noticed. This book pays tribute to the people who form the link between wood and wine, to the skills of foresters, stave producers, coopers and winemakers.

Our hope is that, just as oak can enhance fine wine, this book will suitably and subtly enhance your wine tasting.

Léa Desportes

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The bibliography found at the end of this book lists the various publications and documents that I used as reference material.

I would like to thank Philippe Darriet for kindly revising this work and writing the foreword.