

The three appendixes in Part 8 are a useful pronunciation guide and a glossary of wine terms, and a less useful, incomplete vintage chart with ratings of wines from a few regions produced from 1996 to 2015, but curiously missing 2003 to 2005. A two-column, 18-page index facilitates locating even minor topics in the text.

Despite the impressive credentials of the authors, occasional inaccuracies and imprecisions crept in. For instance, the Muscadet grape is referred to (p. 167) but it is not the name of the grape but the name of the region where the Melon de Bourgogne grape produces a wine that is sometimes called Muscadet. Another example, Hillcrest Vineyard was established in 1961, not 1962, as the first post-Prohibition winery, not the first, in Oregon (p. 252). The French were adulterating clarets with Syrah in the 19th century making the claim that Australia invented the “completely original formula” of Shiraz with Cabernet Sauvignon (p. 264) open to question.

Ironically, the one major problem with this book is that its intended audience is broader than the title suggests. In their attempt to be all things to readers of all levels of wine expertise, the authors have produced a work that covers too much and too little. A guide for the novice learning about wine should be more focused on the basics and include many recommendations that are not expensive. Is a dummy going to pay more than \$25 for a bottle of wine or three figures for a cork extractor? It should also be portable so it can be consulted in a shop or restaurant. This gangly volume is certainly *no vade mecum*.

Untypically, the book’s dedication “to all who have the courage to buy a book called *Wine for Dummies*” (p. 430) appears almost as an afterthought at the end of the book on an unnumbered page. The reader is praised as “intelligent, not dummies, because you have the wisdom to realize that in the complex world of wine, everyone has something more to learn” (p. 430). True enough. Admittedly, I did learn a few things reading this book. But unless you are on the less knowledgeable end of the wine wisdom scale, consulting specialized references would be more enlightening.

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TIM PATTERSON and JOHN BUECHSENSTEIN: *Wine and Place: A Terroir Reader*. University of California Press, Oakland, CA, 2018, 329 pp., ISBN 9780520277007 (hardcover), \$39.95.

Wine and Place is best described by its sub-title: *A Terroir Reader*. It is a reference *par excellence*. Every library and serious wine aficionado should have a copy of this lively

book on the shelves. And, of course, this includes the libraries of wine economists even though most of the pages are devoted to topics not directly related to our field.

This reviewer appreciates that *Wine and Place* does not shy away from controversies. For example, anyone who has much experience tasting wine is familiar with minerality. But there is an open question about exactly what that descriptive term means. After all, basalt—which is associated with minerality—has no aroma or flavor. Some go so far as to say that minerality is so vague a description as to be meaningless. The authors devote 26 pages (pp. 197–222) to teasing apart this controversy.

A Browsable Book but with a Linear Narrative

Patterson and Buechsenstein have divided their subject into nine chapters, each devoted to a particular topic. Then they add excerpts, often lengthy excerpts, from various writings on the subject. In the book's "Introduction," the authors advise the reader, "We do not expect many people to sit down and read through this book cover to cover in rapt concentration. More likely, the self-contained chapters should provide food for thought, a chance to meditate on discrete aspects of *terroir*, whether the minutiae of soil composition or the perils of promotional hyperbole" (p. 4). In other words, the reader is invited to treat this book as a volume of short stories or as a reference book, dipping in where interested and bypassing other topics. The authors make a point of selecting material reflecting a variety of opposing viewpoints. After adding their own opinions and critiques of an expert, they add narrative which smoothly segues to the next excerpt and the next chapter.

The Book's Ten Theses Framework—Does Terroir Even Exist?

In addition to the nine chapters, the "Introduction" is essential reading. Think of it as Chapter 0. There the authors explain in some depth the "framework" motivating their chapter narratives—"Ten Theses on *Terroir*." The ten are numbered using Roman numerals, in order to stress their importance no doubt. Let's examine a few of the ten theses, starting with:

"I. We believe the effects of *terroir* are real and undeniable. ... This is true for both macro-climate regions—Alsatian Riesling is different from Austrian, from German, from Finger Lakesian—and for specific vineyards and sites."

II. We believe that many if not most of the standard depictions of this phenomenon, however, are worthy of skepticism. ..." (pp. 4–5)

It's hard for this reviewer to argue with those sentiments. And the book's first chapter, "The Lure and Promise of Terroir," presents a balanced historical perspective on both sides of the controversy over whether the independent effects of *terroir* are *real or imaginary*. The opening excerpt is a passage from Matt Kramer's *Making*

Sense of Burgundy (1990). Kramer develops the idea of “somewhereness”—the word Kramer coined to describe how *terroir* expresses itself in wine.

“The ideal is to amplify *terroir* without distorting it. *Terroir* should be transmitted as free as possible of extraneous elements or style or taste. Ideally, one should not be able to find the hand of the winemaker. ...” (p. 12)

That “ideal” *terroir* purity may be expecting too much. But it is consistent with statements made to this reviewer by a number of winemakers: “We try to get the best fruit we can, then not screw it up.”

Let’s jump to Thesis VI.

“VI. A pair of observations that aren’t strictly speaking, thesis statements, but need to be included in our [the authors’] initial salvo.”

First, we note that two critical dimensions are almost entirely missing from standard discussions of *terroir*. First, ... precious few rigorous sensory studies have been conducted ...

Second, ... almost no attention has been paid to what the *vines* do, to the photosynthetic and physiological mechanisms that actually create the chemical behind the distinctive flavors and aromas of *terroir*-driven wines. ...” (pp. 5–6)

Their second point is well-taken. As far as this reviewer knows there has been little, if any, *terroir* research into wine grape plant biology. How do the vines translate *terroir* into fruit? Attention researchers: additional work is needed.

But their first point seems overstated. There has been recent work on the relationship between *terroir* and the chemical makeup of the underlying sensory flavors of grape juice. Significant research progress has been made in the science of the taste of *terroir* since the book was written. This is, of course, one of the hazards faced by authors writing about selectively about prior research—previously unstudied topics eventually get studied. This reviewer will mention such research below.

The Book’s Chapters—A Wide Spectrum of Disciplines

There are nine chapters in the book: “The Lure and Promise of Terroir,” “History and Definitions,” “Soil: The Terre in Terroir,” “Climate: Limits and Variations,” “Grapevines: Bringing Terroir to Life,” “Winemaking: The Human Element of Terroir,” “Sensory: Validating Terroir,” “Marketing: Terroir for Sale,” and “The Future of Terroir.” Let’s dip into a couple of the chapters—“Soil” and then “Marketing.”

Chapter 3, “Soil: The Terre in Terroir”

This is the first of several chapters featuring some hard science technical discussion. (The “Climate” and “Grapevines” chapters are also quite technical.) In the “Soil” chapter, there are several scientific studies excerpted beginning with Kevin Pogue (2010) who was interested in the effect of basalt on wines. Basalt has high iron

content. Iron is important for wines, with higher concentrations creating longer wine aging potential. Working in the Columbia Valley AVA in Washington, Pogue measured available iron in soil depths accessible to roots. He found that more access to basalt meant more available iron. But he did not directly test the grapes or the wine.

In the late 1960s, Gerard Seguin (University of Bordeaux) took a different approach. He looked for similarities in the soils of great winegrowing regions. He discovered that the physical structure of the soil mattered more than its chemical composition contents. Good drainage, access to an aquifer early in the growing season, and rainfall *after* the grape harvest to replenish the aquifer during the winter are important factors. This optimal, seasonal water availability explains the importance of gravel, slate, and other loosely packed soil structures in making great wine.

But here are three instances where the march of research progress overtakes the authors' manuscript.

1. Their manuscript was completed before Dr. Kathryn Nora Barnard (2016) actually studied the chemical composition of the taste of the wine produced from grapes grown at various *terroir* sites in the Willamette Valley (Oregon). (Earlier she performed a similar *terroir* and taste analysis for Missouri wine (2009).) Although the Willamette Valley wines were tasted, the analyzed results are not yet public.¹ Yet this reviewer feels including Dr. Barnard's Missouri 2009 results in this book would have been useful.

2. In the commercial sector, James Cahill (2018) manager of the Soter Vineyard's new North Valley label, has recently done considerable work on the relation between the *terroir*—physical soil composition, exposure, and climate—of diverse Soter fields and the resulting distinct pinot noir taste profiles.

3. Orley Ashenfelter and Karl Storchmann (2010) have studied *terroir* effects in the Mosel Valley. They rely on data from a detailed survey of the altitude and angle of all of the vineyards in Mosel. Using well-known results from physics they calculate the quantity and quality of sunlight on each vineyard. They add other explanatory variables such as soil composition and use the data as predictors of land prices. Ashenfelter and Storchmann then use their model to predict the impact of global warming on vineyard prices in that region.

And let us not overlook that the book mixes in dashes of wry humor. For example, the authors note that although *terroir* has a significant effect on human efforts to make wine, humans in turn can have a significant effect on the *terroir*.

¹Dr. Elizabeth Tomasino, Oregon State University has the tasting results. She is withholding publication until Dr. Barnard has published several more articles from her dissertation. Personal communication from Dr. Tomasino, 16 September 2018.

“Tom Burgess remembers planting his vineyard on the steep slopes of Howell Mountain by cracking the bedrock with dynamite to make room for vine roots. ... When Jan Krupp developed the 650 acres of Stagecoach Vineyards in the region of Atlas Peak, he ripped an estimated half million tons of boulders ...” (pp. 66–68)

Chapter 8: “Marketing: Terroir for Sale”

As economists we are interested in certain aspects of marketing including pricing. This chapter on marketing includes valuable information as well as many entertaining anecdotes. One example is the history of Bordeaux which, as it happens, was largely invented in the late 1800s by the vineyard owners in the region. A more illuminating tale is the story of Chalk Hill California chardonnay. Today that label is one of the top premium chardonnays in the United States. But in 1996 their wines were relegated to American grocery store shelves at very low prices. As a consumer of those wines back then, this reviewer remembers that the wine was a true bargain. The owners decided to make a commitment to change the marketing of their brand. Note that they did not improve the wine itself very much. Instead they worked with consultants and focus groups to identify the unique elements their chardonnay offered. And, sure enough, those elements were partially the result of *terroir* in the form of the chalky soil in which the grapes were grown. They achieved what every business owner dreams of: higher price, higher revenue, and very little change in cost.

How to Know If You Need This Book

This book is essential for your library if you are at all serious about wine. As the authors advise, use it as a reference book when you need information about a topic or just a few pithy quotes. The authors have performed a real service cataloging and connecting a well-selected multitude of writings and presentations about *terroir*.

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