

winter. (It is noteworthy that -40°C equals -40°F .) While normally one would think that such regions are outside the region that can be profitably cultivated, global warming will almost certainly diminish the problems that extreme cold can cause.

The remaining four chapters cover in detail the producers and the characteristics of wineries in British Columbia, Ontario, Quebec, and the Atlantic Provinces. A sizeable number of producers are discussed and anyone interested in acquiring Canadian wines would be well advised to study these chapters.

The writing is uniformly clear and accurate and useful maps of the various wine regions are provided in the various chapters. The only thing that might have improved the maps would have been to include measures of a geographic scale on each of the maps. In any event, the author provides a useful service to the wine-drinking public.

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IAN TATTERSALL and ROB DESALLE: *A Natural History of Wine*. Yale University Press, New Haven & London, 2015, 264 pp., ISBN 978-0300211023, \$30.00.

The front jacket blurb introduces this volume's purpose as providing a universally accessible answer to the question "What can science tell us about wine?" The dozen chapters contained within tend to be complementary but can be enjoyed as separate reads as each explores a relatively discrete topic; an ideal menu if the reader intends to consume the content paired with a glass of the studied beverage. Each is introduced by a wine label with a short discussion about its producer, region, and attributes. There are innumerable good regional wines that, alas, are still overshadowed by the flashy darlings which monopolise the attention of high-profile writers and the markets. We must warmly thank the authors for including both some accessible specimens whose virtues we recognise plus unknown others for fundamental reasons, rather than straining to impress with a Romani-Conti or other trophy wine. While the Dom Pérignon 1990 and Drouhin Montrachet are obvious exceptions to this, we are in good hands with folk who understand that Clairette de Die is also worthy of introducing a chapter.

The senses are engaged from the first touch with luxuriously thick, soft paper that conveys a sense of substance and familiarity. The illustrations are attractive and bright but use a palate of soft tones reminiscent of a venerable ornithology or other natural science text, reinforcing its gravitas. The illustrations also evoked nostalgic memories of Dungeons & Dragons in one member of our review panel ... Either way, you feel the book would be at home on a shelf in the American

Museum of Natural History, surrounded by a dusty taxidermy menagerie. The authors are shown in such a mysterious setting grasping glasses of red, conjuring in the mind's eye the wonderful pictures taken of the late Jim Harrison by *Le Monde* in 2013; finishing a bottle of Chateau Thivin, cigarette in hand, in front of a summerhouse in Livingston, Montana. These people are ready to tell a story worth our time.

As expected there were many juicy and diverse facts that illuminated the dark corners of our understanding. Exploring them all would spoil the joy for other readers and is beyond our remit here, but some favourites deserve mention. The Pen Tailed Tree Shrew and its' prodigious ability to imbibe without succumbing to intoxication is simultaneously amusing and depressing—this poor wretch does not ever get to enjoy the warming and fulfilling physiological sensations detailed in later chapters. Juxtaposing the shrew, we learn of African elephants' fondness for an annual bender on the fermenting fruit of the Amarula tree. We are told exactly why grapes have developed to be the colours and as sweet as they are, while an explanation similarly rooted in biochemistry and evolutionary pressures expounds the reason we consumers of fruit also enjoy alcohol as much as we do. It hints that perhaps there is something in this symbiotic relationship that prevents the development of a seedless grape capable of producing a quality wine. The remarkably complex (18 stage!) life-cycle of *phylloxera* is beautifully revealed and shows why its' scourge was so difficult for 19th-century winemakers to tackle.

Just as you are three-quarters of the way through your meaty Cinsault from d'Oc, this faithful companion gives you a concise review of alcohol's effects on your brain ... how à-propos. But when one gets to pp. 169–177 an economist is on familiar terrain. A succinct review is offered on the significant neuroeconomic effects pricing and rankings have on consumer preferences. We are grateful for the inclusion of choice experiments highlighting the fact that we get out of wine what we expect to. Satisfaction depends just as much (or more) upon price and brand recognition, than anything else. "Wine and the senses" was a chapter that made us think "ok, here we go again." It sounds basic and we have been there in many different books, but here the mechanics of vision, smell, and taste are neatly explored with the key scientific facts that go beyond the usual platitudes we are often served. Many are now familiar with how modern revolutions in ampelography have shown various grape cultivars to be duplicates, but here it is extended to how crosses of the same parentage can produce equally sublime examples as Syrah and Viognier. Perhaps the most profound content is the examination of the role of microbes in the vineyard; unique populations of bacteria may play a role as crucial as topography or geology in determining terroir. "Mind blown," as the kids would say.

While we recognise the breadth of topics covered and an even broader set of possible areas of interest for such a book, our craving for ripe scientific morsels was regrettably not sated. The opening chapter invites with an interesting but brief history of wine making, starting from the earliest known origins in Armenia. After some brief exposition in nearby cultures, it jumps somehow brutally to an

ending on prohibition. Our understanding of wine and our relationship with it have been shaped by many different societies between the two periods discussed, and the reader is left hankering for more detail. Given the stated egalitarian intent of the authors, it felt like the concerns of the average drinker could have been addressed more too. Is sulphur to blame for my headache? What happens in my wine when I decant it? How does ageing work? Instead of appealing to this audience, Chapter 3's focus on biochemistry is taxing for humble economists like us and we presume for many others. It does not fulfil the promise of "being accessible to everyone." We also experience an awkwardly crude explanation of the atomic scale in a chapter which simultaneously over-indulges in chemistry nomenclature, making the tone seem inconsistent. Most upsetting was the perpetuation of myths of food and wine matching, which should have died some time ago. Believing no wine should be consumed alongside garlic or fresh fruit seems based more on concern for rules than the foundations upon which they rest, as much of the world breaks their "First Commandment" on a regular basis.

Despite these minor criticisms, we got ample enjoyment out of this work and look forward to future discoveries, as do the authors, looking at "vins de l'impossible" in their final chapter. Anthropogenic climate change offers the conflicting prospect that your two humble reviewers may, in a not so distant future, savour a Scottish "Côtes du Forth" with Tattersall and DeSalle's next volume.

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JUSTIN SPRING: *The Gourmands' Way: Six Americans in Paris and the Birth of a New Gastronomy*. Farrar, Straus and Giroux, NY, 2017, 433 pp., ISBN 978-0374103156, \$30.00.

PAUL FREEDMAN: *Ten Restaurants That Changed America*. Liveright Publishing Corporation, NY, 2016, 527 pp., ISBN 978-0871406804, \$35.00.

ALICE WATERS: *Coming to My Senses: The Making of a Counterculture Cook*. Clarkson Potter Publishers, NY, 2017, 306 pp., ISBN 978-0307718280, \$27.00.

Similar themes, ideas, and historical references to time and place tie these three books together as they trace the advent of food and wine culture and enjoyment in the United States. Guided by the overarching influence of French culinary ethos, they explore the evolution of American cooking, restaurants, and food personalities through a biographical approach. Within this context, Justin Spring's *The Gourmands' Way* explores six American food and wine writers who lived in