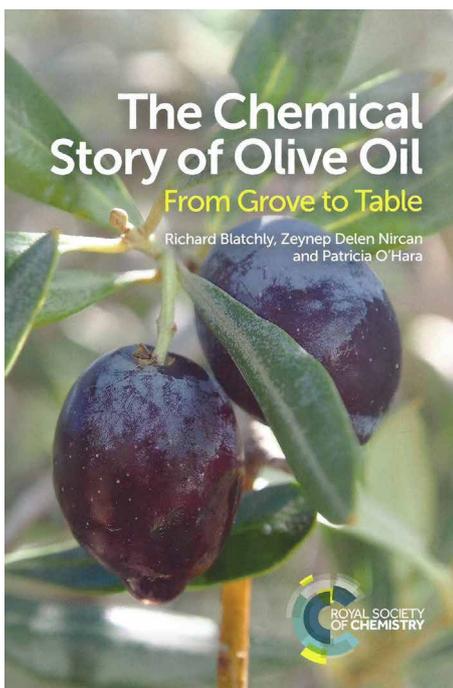


BOOK REVIEWS



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Epilogue

The Chemical Story of Olive Oil: From grove to table

Dr Tony Curtis

I was recently listening to a BBC documentary on the 1950s renaissance of eating out in the UK; one pioneering chef lamented that the only place he could get olive oil was at the local Pharmacist with 'Olive oil BP'! Back then much of the wine was more fit for bio-fuel than drinking; how things have reformed! Now the supermarket has a full aisle of wines from round the world. In Tavistock (a UK Westcountry ancient small market town) there are two small shops. One stocks some 100 cheeses, many of them artisan cheeses locally produced in small quantities. Adjacent to it is a delightful counterpoint - a shop that sells a profusion of different olives and olive oils (nothing else!).

Parallel to this product availability has developed a general deeper interest in food and drink. My copy of the *The Week* has its features on places to eat great food, how to cook good food from outstanding ingredients and expert advice on wines from around the world to accompany them. How

things have transformed in half a century!

Before I get into the proper review of this excellent book, I have something of a digression. This is a lament about the comparative poverty of similar interesting writing on essential oils and perfumes. Never mind the oils; which internet influencer has endorsed the latest 'designer fragrance creation'. When I launched the first BA Business of Perfumery people used to ask me what the use was for such a specialist course. In radio interviews I would be asked what was my favourite perfume and essential oil. This is like asking what is your favourite food or wine. There is variety and part of the great joy of good eating and drinking is enjoyment of the diversity and choice we can experience. Take almost any essential oil and there is a global story with differences in quality and production methods. A major IFEAT initiative is to start to plug this gap with the production of authoritative

but accessible material for people to start to enjoy the full richness and diversity of our industry. Enough of this digression.

The Royal Society of Chemistry is providing an outstanding service to our industry and society at large with the production of a whole range of accessible (you do not need a PhD in Chemistry to open the cover!) books. Charles Sell's *The Chemistry of Fragrances from Perfumer to Consumer* has been a bedrock text for over a decade. Also reviewed in this edition of the ICATS Newsletter is *Discovering Cosmetic Science* jointly produced by the RSC and the Society of Cosmetic Scientists.

What do I think is so special about this book? When you are asked by a learned society to review a book for the first time, they give you a guideline check list of points to consider: is the book accurate, free from errors and does it cover the topic in sufficient depth etc. *The Chemical Story of Olive*

Oil ticks all the boring but necessary boxes. This book in addition has the X factor of a good TV documentary in that it conveys a genuine passion for the topic. Their enthusiasm brings you into this wonder world. The approach is direct: history of the oil, grow, harvest, process and use the oil. A great improvement is the use of colour illustrations.

As an author of chemical texts, I also appreciate the use of modern software to show chemical structures. 20th Century Chemists grew up with line diagrams in books and with the profusion of hexane structures in terpene chemicals the colloquial term 'chicken wire' (resembling the hexagonal pattern of chicken netting) is sometimes used to describe the result. Modern 3-dimensional colour representation of structure gives the reader a much better appreciation of the 'real' structure of the molecules. Our recent advances in olfaction theory and protein structure have emphasised the importance of the three-dimensional aspects of chemical structure. The traditional line representation does not give a full appreciation of this critical aspect of structure and biological fictionality. This more pictorial representation not only conveys more accurately the chemical information, but also displays it in a more accessible way for lay readers.

The greater interest in what we eat and drink has generated a welcome profusion of writing. The recent article I have read nicely illustrates this. During the great financial crash investment banks got into problems with exotic activities. The normal day-to-day banking was called 'vanilla' (i.e. boring and dull) banking. Day-to-day banking may not be exciting (very important as I look at this month's bank statement!) but vanilla is not! What a slight on this exciting product. This week's feature article in the *New Scientist*¹ was *Not so vanilla!* The sub title was 'Vanilla may soon be shaking off its reputation as a run-of-the-mill flavour'. The article then goes on to discuss the ups 'New varieties of vanilla could be more citrusy, smoky, nutty or caramelly,' and downs of modern agriculture 'A lack of genetic diversity limits to flavour of

one of our most beloved species'. Much the same could be said of olive oil as discussed in this book. Stunning pictures of polar bears and tigers have aroused us to be concerned about endangered species. Hopefully this renaissance of interest in apparently humble products (olive oil, vanilla etc.) will generate interest to take like action on these products. Chapter 10 of this book does this well for olive oil.

As befits a publication by the Royal Society of Chemistry the needs of the dedicated Chemist are not forgotten. A major problem with some of the issues associated with food & drink (organic, sustainability etc.) is how to police and assure the public of the authenticity of products. The Royal Society of Chemistry was formed from an amalgam of two learned societies: Chemical Society (academic) and Royal Institute of Chemistry (professional). A key aspect of the RIC activity was analysis of food to detect and measure adulteration in the 19th century. Similar work was undertaken in the assurance of pharmaceutical products and sometimes these fields overlapped: Olive Oil BP and Clove Oil BP are both food and medicinal materials. Attempts at adulteration are still alive and well, just more sophisticated! Chapter 6 Delivering Quality and Assuring Authenticity covers this 'Cat & mouse game' well and address key issues such as 'How do Chemists know it is olive oil?' i.e. not adulterated with some other less expensive oil.

The Royal Society produces these books at an affordable price. Do get and read a copy. There is something in it for everybody. Let us delight in the products that feed our senses and get to understand more about them. The battle has been won with wine, let us now move onto other areas that give us enjoyment.

¹ *Not so Vanilla: New Scientist*, page 46, 3rd April 2021