

Book Review

***Natural Dyes: Sources, Tradition, Technology and Science*
Dominique Cardon; Caroline Higgitt, translator
Archetype, London (2007), ISBN 978-1-904982-00-5**

Reviewed by Mary W. Ballard

Every once in a blue moon, every few decades, a wonderful book appears that compiles past research, current studies and new data with a vast bibliography: the kind of book that you can pick up and read cover to cover, by chapter or by snippet; a book that is just as lucidly written for reading as for reference. This year we are indeed fortunate to see Dominique Cardon's book *Le monde des teintures naturelles* (2003) now beautifully translated into English by Caroline Higgitt.

From the outset, you realize you are opening a treasure trove: Dr Cardon has three closely spaced pages of acknowledgements, thanking a 'who's who' from the far corners of the dyer's world. Her writing style engages the reader, and from the start she invites the reader to rise to her level of study and expertise, politely asking to be alerted to errors and omissions in this huge undertaking! She has taken on the task of organizing dyes within their botanical context, a singularly difficult but necessary task. For each plant, there is nomenclature in Latin, English and the relevant local language; a description; a photograph; habitat and distribution; parts of the plant used; harvesting season; dye composition; dyeing methods and colors obtained; historical importance; other uses and possible

future developments. If pertinent, protocols for silk dyeing are differentiated from wool dyeing. She also follows this plan for lichens, mushrooms, the red-producing insects and the purple-producing mollusks. There are excellent, helpful detailed illustrations from all over the world – often photographs taken by the author herself.

As an example, Dr Cardon does not just write about walnut dyes; rather, her section entitled 'Fawn-dyeing Juglandaceae: Walnuts of Europe, Asia and America' explains the differences among the walnuts, confusion possible with Chinese and Japanese terminology and references, and use of North American walnuts by North American Indian tribes. She also links walnut dyes to their African equivalents. In order to develop these topics, a number of references have been used, but in order to maintain readability, the endnotes are sparingly devoted to specific quotations or particularly arcane information. Thus, Frances Desmore is cited because she physically observed the Ojibwe (Chippewa) Indians' dyeing process with hairy puccoon (*Lithospermum carolinense*) to color porcupine quills, but D.E. Moerman's compendium *Native American Ethnobotany* is not. Cardon is apparently intent upon piecing together a coherent summary of use, chemical

composition and historical importance, and those authors who can link western North-American tribes' usage with other species, *L. angustifolium* Michaux and lemonweed (*L. ruderale*), are the ones cited. Yet, even with this abbreviation, the endnotes are a satisfying 24 pages of small font and link the reader to the 33-page small-font bibliography, where we see that Moerman is cited.

And indeed, it is fun to check to see if Cardon has listed one's own favorites, like J.H. Munro's fabulous article on kermes, 'The medieval scarlet and the economics of sartorial splendour', which leads us to speculate that Jan van Eyck's *Madonna of the Canon van der Paele* may be actually wearing a red robe worth \$150,000, not a simple cloth coat. Alas, with little room for tangential asides, Cardon does not cite the former Israeli Chief Rabbi Isaac Herzog's 1919 thesis on Semitic porphyrology, since it is not strictly relevant to the study of dyestuffs. Instead, the reader should be grateful to be brought up to date with the current nomenclature of purple-producing mollusks, learning biochemical precursors, ratios and synthetic routes of Tyrian purples, all in a logical manner. The distinctions between direct and vat dyeing are explained in detail, as are the chromogens found in the hypobranchial glands of the different mollusks. Most

importantly, the variations in composition among the different mollusks, which include the biblical hyacinth purple, are explained. There is also much to enjoy, like the self-portrait of Henri Lacaze-Duthiers made using a photographic negative and shellfish purple pigment on silk. The illustrations in this volume are quite wonderful.

Cardon is very modest about her critical role in solving the mystery of dyer's kermes, but her text helps to remind the reader of her relationship to the world of color and dyes. She is a serious student, capable of collecting and monitoring female kermes on the holm oak (*Quercus ilex* L.), as opposed to the kermes oak (*Quercus coccifera* L.), for a year to ascertain whether or not *Kermes vermilio* is capable of reproducing on a diet of holm oak. (It's not.) The book reflects the fact that

Dr Cardon has been researching the relationship between nature and dyes professionally for at least two decades. Her 400-page pocket guide, *Guide des teintures naturelles*, appeared in 1990.

In the current volume she has separated the chemical structures from the description of the dye and its application, unless it is essential to understanding the application and resulting color. Together with Catherine Higgitt, she has provided a special Appendix of Chemical Structures that parallels each chapter's discussion. This is helpful for the non-specialist reader and, with a bookmark, a reasonable compromise for the chemist. For those of us who learned about natural dyes within the format of Dr Schweppe's analytical framework and the *Colour Index*, however, this text presents a challenge, since the chemical numbering system of the *Colour Index*

is not mentioned anywhere in the book! If you do not know that indigo is C.I. Vat Blue 1 and C.I. Natural Blue 1 with a Constitution Number 73,000, you will never find out about it here, though you will be presented with a wealth of wonderful information about indigo, its sources, preparation methods, applications and historical contexts. So, in that respect, this is an interactive text, and the reader will want to make marginal notes. This book is destined to provide many hours of pleasure and learning to those who love color, natural history and historic conundrums. Thank you Dr Cardon!

Mary W. Ballard is Senior Textiles Conservator at the Smithsonian Museum Conservation Institute in Washington, DC.