

Books

Biomolecular Crystallography Principles, Practice, and Application to Structural Biology

By **Bernhard Rupp** | *Garland Science* | **Hardback: 850 pages**
ISBN: 978-0-8153-4081-2

SINCE my early days, starting in science as a lab technician, I have been aware of a number of publications commonly referred to in the lab as 'The Bible'. In this more secular time and according to the defined scientific method this is a most inappropriate soubriquet; one to have a Dawkinsian rationalist in quite a rage. However, the term is widely understood and I do believe there are some interesting comparisons to be made.

It was the work of the 4th century AD scholar Jerome which produced the first authorised version of the Christian Scriptures that we know as the modern 'Bible': the Latin Vulgate. Here was the distillation of a body of revealed truth good for all time. Our method provides truth discovered and always open to further verification; however, from time to time it is similarly required for some Scholar to draw together various strands and consolidate the current state of the art in a coherent, accessible, single source to avoid confusion and promote progress.

Unlike the sainted Jerome the author here undertakes this task in the full acceptance, even anticipation, of eventual redundancy. 5 years in preparation (Jerome took a bit longer) and the author has told us that "no-one gets rich writing this sort of material"; so, in essence, it is created from a sense of requirement, altruistically and from a love of the subject.

On reading my previous review of another book, one of our more senior colleagues declared that I seemed to have read the book; an observation which I took to be complimentary in nature; although I could not help feeling that, after all, this was part of the task of a reviewer. In approaching this book I quickly realised that, unlike perhaps, some fictional, ephemeral, or more brief technical, works, there is a useful limit to the 'reading' and so hope I am forgiven for admitting to having not read every word but hope to provide some useful criticism.

In the preface Dr Rupp tells us of the need for the non-specialist to appreciate, at least qualitatively, what is going on and this goes to the heart of the progress seen in the century (almost) since the invention of the technique. MX is now becoming routine. Perhaps so, but noticing the extraordinary depth of science aired almost weekly on our CCP4BB gives even the casual reader some idea of the depth of pure science underpinning the crystal-to-structure

phenomena. Most drive cars, few understand them well, but their genesis is still a fascinating story.

The sheer size and scope of the work may easily be intimidating to a novice readership; even the generous Acknowledgements read as a Crystallographic Who's Who. There is extraordinary effort, in the construction of this book, to achieve its aim of providing a comprehensive manual to MX and its application. Therefore in the approach to this book the reader is well advised to take as much time as required to familiarise with the rather novel structure (at least read the user instructions and keep them in mind) to take full advantage of: main text; sidebars; end of chapter key concepts (not to mention 'additional reading' and 'references'). There is an added bonus of links to rich areas of web based material. Once the structure of this work is absorbed it can be used variously as, a how-to manual, basic source, or for daily readings; a versatility which takes the art of the textbook to a new level.

In 5 Parts containing 13 Chapters the work journeys through the world of MX structure and structuring with cautionary tales and wisdoms as well as the main bulk of factual material. Starting, like a great expedition, with the route map and culminating with the presentation of the findings and justification of the enterprise. Great colour plates, diagrams, asides and related pieces enliven and extend the sometimes, necessarily, dry subject matter. Apart from its main theme this is also a book about Science. There is a detectable background (pun intended) theme woven through the work telling us what we are really doing; an encouragement to the beginner and a refreshing reminder to the reflective practitioner.

Is it a new laboratory 'Bible'? I leave that for posterity/time/you to decide. What is clear to me is that we should all be grateful to Dr Rupp for his effort. A fine gift to our community, and, at £60 for over 800 fun-packed pages, where else could one get such value? If every lab added one to its library then his efforts would be rewarded by recognition, if not financially. And remember, Christmas is just around the corner!

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