the subject “should be addressed in terms of the range of functions that the antipodes played as a space outside of history, faith, and politics that nevertheless interacted with these forces in curious and unpredictable ways.” (p.8)

Hiatt cleverly and knowledgably disassembles cartographic milestones into their constituent graphic and allegorical elements, placing those with the relevant social context. However he does not apply the same approach to the discovery narrative, appearing to treat each as an integrated whole rather than the collection of distinct discoveries that are only linked by their cartographic co-location.

Consequently, the cartographic discovery-telling of mapmakers and publishers such as Jodocus Hondius is ignored, while their publication design elements are explored carefully with insight. Discoverers like Quirós are ignored altogether, except where their discoveries are referenced by other map publishers.

This selective sourcing suggests Hiatt has chosen only those map publishers who amplify his thesis. He has focused solely on story-telling rather than discovery-telling.

Further, it reflects the author’s failure to make a clear distinction between map-makers who recorded their knowledge and map publishers who told stories in a wider context, with more layers on context than simple edges of oceans gleaned from discoverer map-makers.

This work is important for the understanding of the layers of context the maps studied provide us. However it does little to deepen our understanding of the progressive unveiling of our Venus, Terra Incognita.

For those readers who wish to indulge their senses with their Venus at the purely physical level you will be quickly trapped and disappointed. For those readers who wish to enjoy and understand the many layers of Venus’s enticement, fulfilment awaits you.

Michael Ross, Wellington, NZ

K. Börner, The Atlas of Science: Visualising What We Know.


The CEO of Google, Eric Schmidt, recently estimated the size of the internet at roughly 5 million terabytes, or over 5 billion gigabytes, of data. And every day the amount of digital information flowing through the internet is increasing. The torrent of information about scientific developments alone demands that we acquire new tools to help us manage so much information, argues the “Atlas of Science: Visualising What We Know”. The book is an attractive, engaging, illustrated collection of the leading, early examples of tools that effectively visualise relationships between and developments among the sciences.

Essentially a catalogue of an exhibit entitled “Places & Spaces: Mapping Science”, the book is richly illustrated in full colour with illustrations on all pages but those in the end matter. The large format – 34cm × 28cm – allows the reproduction of the charts, diagrams, and graphs at legible size while the accompanying explanatory notes set in small type further explain the illustrations. The book is ambitious, detailed, and cleverly organised, and, like the diagrams it documents, generally has sufficient detail to please specialists as well as enthusiasts of information design, scientific visualisation, and graphic design. The long bibliography and citation list span 35 pages.
Like a grammar school atlas, this book is largely focused on its home territory, in this case Indiana University’s Cyberinfrastructure for Network Science Center and the School of Library and Information Science where the author, Katy Börner is Professor of Information Science. This is just one way in which this atlas is imbued by the author’s presence. Judging from the large number of portraits of Börner and her colleagues that accompany the diagrams they’ve authored, Indiana is a global capital of computational scientometricians, as they’re known. The global population of these specialists is only about 300.

About half that number worked on Diderot and d’Alembert’s *Encyclopédie*, completed in 1777 and cited in Part 2: The History of Science Maps as a precedent in knowledge gathering and cataloguing. Twenty-six years in the making, that work contained 70,000 articles written by “a society of men of letters and skilled workmen, each working separately on his own part, but all bound together solely by their zeal for the best interest in the human race and a feeling of mutual good will.” After two hundred and thirty years of technological (not to mention gender equality!) advancement, it took only eight years to write 29 million Wikipedia articles in 250 languages. Academics like herself, Börner says, who must live by the rule “publish or perish” don’t have time to answer all their emails let alone keep up with all these new web pages or even papers in their fields. This is the reason for the need for well-designed graphics that help us organise and sort information and the links between ideas, people, and documents.

*Part 3: Toward a Science of Science* lays the foundation for the examples of *Part 4: Science Maps in Action* which gets to the meat of the matter. Here notable visualisations are explored in detail, with either 2- or 4-page spreads offering detailed descriptions of the graphics, the rationale that informed them, or early drawings and visual studies that show the thinking that shaped the final graphics. The effective use of small multiples helps us understand a visualisation of the links between 7.2 million scholarly documents, for example. These generous spreads which allow the authors to explain the graphics in detail make this book more than a pretty collection of interesting diagrams.

In the conclusion, *Part 5: The Future of Science Maps*, promising avenues are proposed: interfaces to assist scholarly research; methods of mapping economic relationships and consumer patterns to help businesses find new markets; the use and value of virtual worlds in educational settings; and so on. The author makes convincing arguments about the importance of computational scientometrics and their growing utility to society.

But as visually interesting as it is, the book is more like the catalogue of an exhibit than a stand-alone atlas. Although much of the subject matter of the documents is intriguing, one cannot investigate some works in satisfactory detail since the visualisations were designed for an exhibit room where the graphic could be studied either at a larger size, in three dimensions or in an electronic format. So the information on Ingo Günther’s “World Processor” globes aren’t – ironically, for an atlas – projected onto maps. The atlas is concerned with the visualisations as techniques, and their subject matter is secondary.

Colour choices and information design in the introductory sections sometimes miss the mark which is a disappointment in a book advocating clarity in design. The first spread in *The History of Science Maps* has three different arrow types that show the relationships between 28 pioneers in the fields of knowledge storage, classification, visualisation, and dissemination. Two of the three colours are so similar that this reviewer could only discern relationships of inspiration; vectors to indicate support and facilitation between individuals couldn’t be distinguished. Arrows that overlap to the degree that they’re illegible is further proof that the book was an afterthought to the exhibits.

Some of the awkward design elements, it seems, are the result of the book being hastily edited or rushed to print. Icons alongside a timeline of major visualisations (e.g. SmartMoney’s 1998 “Map
of the Market”) are cryptic and unexplained; I could find no legend in the book or even on the book’s website, http://scimaps.org. And “Putting Science in its Place”, from 2003, is situated on the timeline at 1950, three years before that book’s author was born. Perhaps this error of an incorrect year of publication is proof of a point from the introduction: “We need better tools to access, track, manage, and utilize our collective scholarly knowledge and expertise.”

Despite some shortcomings in its design and proofreading, Börner’s atlas is an exciting presentation of forthcoming tools that will enable us to manage the torrent of information engulfing us.

Martin von Wyss
vW Maps


A sound head, an honest heart, and an humble spirit may indeed be the best guides through time and to eternity (Sir Walter Scott 1771-1832); however, those with a copy of the Lands Guide firmly tucked under their arm will also find themselves suitably equipped to navigate the supremely complex and bewildering array of land records in the custody of the Public Record Office Victoria (PROV). Researchers, particularly those in genealogical, historical or environmental pursuits, will find this an invaluable resource when their investigations into Victorian land lead them to the Archives.

The aim of the Lands Guide is to help people find records about Crown land in Victoria. A key strength of this publication is that it also provides essential scaffolding information that has never before been brought together into one place. This includes information about PROV, their record keeping system and online catalogue, the variety of administrative agencies that created or maintained land records, Victorian land legislation, as well as the history of land administration in post-contact Victoria. The result is a comprehensive and reliable ‘how to’ reference resource with considerable explanatory historical context. Readers are forewarned that it is a large and complex publication. But, if the editors’ advice is heeded, and the reader familiarises himself with the arrangement of the content, a researcher at any level of experience can delve into the Lands Guide at a satisfactory point.

The Lands Guide comprises 7 key parts which break down into 37 information-packed chapters. It is supported by a detailed contents listing, 42 illustrations, a glossary, bibliographic references and a 30 page index.

Parts one and two, Orientation and Introduction to Crown Lands in Victoria treat the inexperienced reasonably gently and give more experienced researchers an opportunity to refresh their knowledge. It is in these two parts that most of the scaffolding information is located. Those new to archival research and lands records are referred to relevant PROV guides and can consult an FAQ plus a quick reference table which advises how best to proceed according to their task and level of experience. Useful research tips can be gleaned from the case studies throughout the publication, and illustrations are employed to unlock the secret to reading the heavily coded parish plans. Users at all levels will appreciate the listing and explanatory summary of all of the legislation that impacted upon land administration since 1860.