rather than one based on the reconstruction of the sexual advice centres and sexually transmitted disease clinics as regards their clientele, and the involved lay and professional groups. The analysis is pitched at the level of the city as a whole, rather than one based on the distinctive political and social identities of a district by district anatomy of the metropolis. The translation of Adolf Gottstein from medical officer in Charlottenburg to Prussian Ministerial Director might have been considered among other local/ federal state interactions. Timm is more at ease with policy rather than actual reproductive and sexual behaviour.

The analysis of Nazi Berlin provides the author with greater scope. Those sterilised were assisted in finding other sterilised partners, although groups subject to persecution such as Jews and Roma might have found their place in the analytical framework. The study divides into population and family policy, and the control of sexually transmitted diseases with some details on contraception in Nazi Germany. The book comes into its own with the immensely useful sections on post-World War II Germany. One is that of the status of the sterilisation law of 1933. The effects of the impact of the Berlin Wall on sexually transmitted diseases is fascinating in indicating that the political repression of the German Democratic Republic facilitated effective disease control. Overall, this is a study that gains in strength as it unfolds. There is an index but no bibliography.

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Sachiko Kusukawa, *Picturing the Book of Nature: Image, Text, and Argument in Sixteenth-Century Human Anatomy and Medical Botany* (Chicago, IL, and London: University of Chicago Press, 2012), pp. xvii, 331, $45.00, hardback, ISBN 13;978-0-226-46529-6.

Beautifully illustrated, this remarkable study constitutes a major step forward in understanding the world of medicine and natural history in the sixteenth century. It concentrates on three authors and their works: Leonhart Fuchs and his *De historia stirpium* of 1542; Andreas Vesalius and his *De humani corporis fabrica* of 1543; and, to a lesser extent, Conrad Gessner and his unpublished *Historia plantarum*. All three works are rightly seen as marking a major shift in the representation of the natural world by their use of images, to say nothing of the sheer beauty of their execution. But they are here viewed against a detailed background of other naturalists, derived from two decades of close involvement with the books themselves in libraries across the world. This is no compilation from catalogues, but this shows the benefits that can be gained by examining individual copies, their annotations, their formats, and their state of preservation.

Dr Kusukawa lucidly demonstrates how these (and other authors) wrestled with the problems of representation. They were among the first to link the verbal and visual together in a single argument, and to move away from using illustrations simply for mnemonic purposes. They were faced with epistemological questions. How far can (or should) an image represent an individual flower? What is a 'living' image? How can a single image convey the complexity of one object that, as with a plant, changed over time? How can a two-dimensional image on the printed page give a sense of the complexity of a three-dimensional object? How can shading indicate the texture of a bone or a leaf? Some of Dr Kusukawa's answers to these questions are not new, but her overall understanding of the

ways in which Renaissance scholars thought, as well as her familiarity with debates across Renaissance Europe, will ensure that this book will be the starting-point for many future investigations into medical and botanical images.

The first section of the book brings together a huge amount of information on the printing of books, and particularly the problems involved in publishing illustrated texts in the sixteenth century. The costs were enormous, ten times or more that of an unillustrated book. No wonder that most books on anatomy long continued to appear without illustrations, or that printers reused the same image blocks in a variety of different publications. We are introduced to the working practices of artists and block-cutters. Fuchs immortalised his co-workers by putting their portraits at the end of his volume, whereas controversy still reigns over the source or, more likely, sources of Vesalius' plates. Colour presented its own problems. Some printers, including Isengrin, arranged from the start for purchasers, if they were willing to pay, to have their copies hand-coloured from a master copy. The Fermo copy of the *Fabrica,*which is hand-coloured, seems to have been coloured by a professional artist but more for aesthetic than for scientific reasons. Like other coloured copies, it would repay further study in the light of what Dr Kusukawa has discovered.

But publishing was a very risky business. Isengrin underestimated the demand for coloured copies of the *Historia*, while Oporinus had to lower his price for the *Epitome* considerably. The price for the *Fabrica* itself went up, but he had difficulty shifting all his copies. Hence his reluctance to publish a second edition – three years elapsed between receiving copy and its appearance in 1555, despite Vesalius subsidising the work by paying for paper and loaning Oporinus a substantial sum of money. He was Oporinus' biggest creditor, and the dispute between the heirs of both men continued after their deaths. It is a pity that there is no discussion of either the 1554 (almost unillustrated) Lyons edition of the *Fabrica*, or the 1568 Venice edition, both of which reveal much about the problems of printing it.

The two printers Isengrin and Oporinus produced works of art as well as of scholarship, yet much about them still remains obscure. As Frank Hieronymus' magisterial listing of Basle scientific imprints shows, neither had produced work of this quality before, and neither was particularly wealthy. Nor was Basle famous for the quality of its presses. These relative newcomers took an enormous risk in publishing these extremely large and expensive volumes. Oporinus may have set out to rival Isengrin, and the latter certainly knew (and used) Brunfels' earlier *Vivae Eicones,* printed in Strasbourg, but they set new standards and confirmed Basle's reputation as a centre of scientific printing.

This is an illuminating book, not least to those of us who have worked with this material for many years. Two important discoveries which were made while this volume was in press amplify, rather than contradict, what is said here. In the *Papers of the Bibliographical Society of America* 103.2, 2009, 199–220, Pozeg and Flamm suggest that the Cambridge coloured copy of the *Epitome* of the *Fabrica* was a presentation copy for Charles V or Philip II; cf. *Picturing the Book of Nature*, p. 70. The discovery of Vesalius' annotations for a never- published new edition, announced in the October 2012 issue of this journal, adds further to our understanding of his relations with his publisher and confirms the extreme care he took to ensure that his message was conveyed accurately by images as well as by words. We look forward to Dr Kusukawa's observations on both finds.

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