

ineludible para aquellos que quieran entender cómo se puede hacer historia de las emociones *de otra forma*. ■

Juan Manuel Zaragoza

Universidad de Murcia

ORCID: 0000-0001-8377-6688

■ **Domenico Bertoloni Meli. Visualizing Disease. The Art and History of Pathological Illustrations.** Chicago and London: The University of Chicago Press; 2017, xvi + 288 p. 72 ill. ISBN: 978-02-26110-29-5. 55 \$

The history of anatomical illustration, one of the richest subject areas in the history of medicine, indeed the one the lay public most readily identifies, has almost never taken into account visualizations of pathological specimens and bodies. Pathological illustrations, in fact, came later and were often (perceived as) less attractive than anatomical ones. This is hardly surprising, since pathologies are by definition never normal, and —in an age when medicine still cultivated a strong individualistic bent— difficult to reduce to common features, a necessary premise for their visual representation. In the period broadly covered by this volume, from the 17<sup>th</sup> to the early 19<sup>th</sup> century, the birth and development of pathological illustration accompanied a revolution in pathology itself. The focus on local lesions and a solidistic approach to the body went hand in hand with a better assessment of the diffusion of diseases, and with the slow approach to notions such as average, generalization, and seriality. However, Vesalius himself had left among his *desiderata* a companion volume to the *Fabrica*, one dedicated to pathologies. This shows to which extent the effort towards the definition (and representation) of pathological details was embedded in the very birth and early development of normal anatomy.

This is a groundbreaking book, in that it addresses for the first time in a comprehensive way this neglected but ever-present, indeed unavoidable, topic in the development of modern medicine. As the author writes, «while it would seem almost inconceivable to investigate the history of anatomy ignoring illustrations, this is how we have been studying the history of pathology» (p. xi). Accordingly, an impressive range of detailed, beautifully reproduced pathological illustration enrich the book. Since it focuses on extensive illustrated treatises — daunting enterprises, the result of careful and time-consuming planning— its

chronological balance is on the late 18<sup>th</sup> century. Bertoloni Meli identifies the date of birth of the new medical genre in Eduard Sandifort's *Museum anatomicum*, published in 1793, 250 years after Vesalius' *Fabrica*. Comprehensive and vast treatises were in many cases the catalogs of pathological collections or museum, and as such the result of sustained attention to the techniques and problems of preservation of human specimens. Many of the treatises Bertoloni Meli describes are magnificently printed, large-format if not always in-folio, volumes, exhibiting excellent illustrations, the work of skilled artisans. The new iconography of diseased parts obviously required a close collaboration of pathologists with artists. One of the many merits of this book is the attention it gives to material aspects, especially engraving techniques, and to the diversity of their uses for different classes of diseases and body areas. Pathological images had their antecedents in those produced in other scientific fields: «prints produced with only black ink were generally due to artists who had a background or expertise in anatomy and pathology; for color prints, however, pathologists often relied on engravers with a background in botany and to some extent ornithology» (p. 20).

By «combining thematic and biographic concerns» (xv), and by adopting a broad European geography, where center stage is taken by Germany, the Netherlands and Britain, Bertoloni Meli addresses a number of questions, among them, crucially, the availability and accumulation of pathological bodies and cases in medical literature and practice. The changing notions of disease are described here only in «broad strokes» (p. 4), as is the professional difference between surgeons and physicians. From the point of view of anatomopathological knowledge, this is a story that begins with osteology, then moves to soft tissues, cutaneous diseases, and finally to comprehensive tractations of pathologies following nosology. The increasing accuracy and extension of pathological representations, and their diffusion, helped reshaping general notions of disease (pp. 219-220). However, the author argues, «the growing awareness of the need for a careful study and differentiation... of lesions as a key aspect» (p. 7) was by no means a linear progression. The issue of classification —moving from the rare and the monstrous to the rare and the common, and then to nosology— was a major concern, as was the one of scale (how many patients or cases?) and of the fraught relationship between causes and effects in pathology and the way to represent it. The resistance against images, in the name of the difference between *autopsia* and illustrations, as in the case e.g. of Xavier Bichat, is also part of this story.

Opposition to images placed sensory experience at center stage; this attitude was partly overcome by the major shift in the visualization of pathologies, that is, the production of colored images.

Beginning with what he describes as a prehistory of sorts, Bertoloni Meli examines works by the surgeon Wilhelm Fabry von Hilden (based in Switzerland, mainly in Bern) and of the anatomist Frederik Ruysch (in Amsterdam) to show that in a first stage collecting pathological specimens meant collecting rare cases, as in cabinets of curiosities (p. 52). The real story begins for him with William Cheselden (a successful surgeon in London) and Eduard Sandifort (in Leiden), that is, with the representation of bone diseases. Cheseldens' *Osteographia* (1733) «seemingly drew a line between diseased states and anomalies or variations» (p. 57), as did other works by on bone pathology by Cornelis Trioen in Leiden and Christian Gottlieb Ludwig in Leipzig, and on bone regeneration by Andreas Bonn in Amsterdam and Leiden and Johann Peter Weidmann in Würzburg and Paris. Sandifort's *Museum* was more than just a treatise, being «a paper museum of pathological cases and a reference tool for medical men» (p. 73), ordered from skull to spine and from pelvis to limbs. Matthew Baillie's *The Morbid Anatomy* (London, 1793) represents another turning point in the history of pathological illustration. Originally this was an exclusively textual work; it enjoyed a European reputation before being enriched by plates, sold in installments, in 1799-1803. Baillie's work followed Morgagni's method, from symptoms to lesion, and was arranged in an anatomical order. Moving beyond Morgagni's legacy, the protagonists of the beginning of the 19<sup>th</sup> century aimed, with obvious differences, at a comprehensive illustrated taxonomy of diseases: «Overall, Baillie and Bleuland seemed more concerned with texture and inflammation, Meckel with structure and morphology» (p. 106).

Smaller or more specific treatises were also published in the first decades of the 19<sup>th</sup> century; they were well illustrated in color and produced using the last novelty in engraving, lithography. Bertoloni Meli examines the works of the two London surgeons James Wardrop and Everard Home, dealing respectively with diseases of the eye and of the prostate, to make the point that «a new system based on postmortem lesions was not an obvious and straightforward matter» (p. 118). Direct experience in dispensaries and hospitals gained importance, together with «a growing but by no means linear shift from preserved to fresh specimens» (p. 124). Cutaneous disorders offer an excellent example of how nosology combined with colored illustrations in offering a detailed and accurate description of the course of specific diseases in living patients. In the age of the boom of the printing industry, illustrated treatises in color multiplied, becoming a staple of medical education and activity alongside full-fledged anatomopathological museums. The challenge of producing the volumes by Robert Hooper, Richard Bright, James Annesley involved extensive collaboration with artists and

a growing awareness of the complications of representing diseases at different stages, observed in individual cases, or observed outside Europe, where the collection of specimens could be difficult. Only the concluding chapter of the book deals with France and French anatomo-pathologists and treatises, among them the *Anatomie Pathologique* (1829-42) by Jean Cruveilhier, the best-known example of the genre. While France's emergence as a center of the production of pathological images was somewhat belated, arguably because of the easier availability of cadavers in the French system, Cruveilhier worked extensively with different artists to produce one of the most ambitious medical works of the 19<sup>th</sup> century. His views on pathological anatomy differed from those of his British colleagues; however, their works and their careers testify to the status the discipline had finally reached, also thanks to illustrated treatises, in the landscape of medical knowledge.

Single observations or cases, dealing with specific conditions and coming from medical and surgical practice, are not the object of this book, as clearly stated by its author. This is an understandable and indeed sensible choice, but one that rather underplays the role played by hospitals and other medical institutions in the development of pathological experiences and illustrations. This also means that their precocious presence in poorer but widespread documents, such as drawings, engravings and prints —not to say in medical journals, is here under-represented; and that the periodization adopted by Bertoloni Meli could be different if a different point of view was adopted, concerning individual cases and their accumulation. Also, one might wish to know more about the relationship between texts and images in the large illustrated volumes he examines, which often contain more than just illustrations. Finally, it is slightly surprising that in a book devoted to illustrated book production, diffusion, and the way books helped shaping an innovative scientific and medical field, little if any attention is given to the printing industry in general and to individual printers in particular. However, it would be ungenerous to point to what remains to be done in the field that Bertoloni Meli has inaugurated with his book. The landscape he describes is already incredibly rich, staging a crowd of devoted individuals and institutions, of visual techniques and developments, and of wonderful and accurate, if at times disturbing, illustrations. ■

**Maria Conforti**

Sapienza Università di Roma  
ORCID: 0000-0002-2946-6950