

political process that fostered a growth of coercive power by means of public health is developed in Chapter 3, with a good overview of the historical development of the political and administrative sanitation procedures in the First Republic. Chapter 4 analyses the expansion of the sanitation policies and the interplay between the states and the federal government, opening up to the exceptionalism of the São Paulo state, which is detailed in Chapter 5. The final chapter concludes with consideration of the negotiation and the convergence of interests between the elites and the federal authority.

In Hochman's analysis, the understanding of communicable diseases as a national matter is a not just a process of institutions, laws and policies supported by a formal political argument. His narrative is enacted and shaped by the decisive role of historical characters like Belisário Penna, the most prominent exponent of the rural sanitation movement. Penna's leadership and capacity to organise a consensus was important for shaping ideas into policies and also in the constitution of the Pro-Sanitation League.

The League was a founded by a group composed of political, educational and medical elites, including members of the National Academy of Medicine, professors of Brazilian medical schools, Oswaldo Cruz Institute scientists, military officers, lawyers, educators and journalists. This movement became the 'organized expression of the rural sanitation movement' (p. 43) and championed the idea of cleaning the *sertões* (a sociopolitical and medical term to define abandoned areas) plagued by endemic diseases – hookworm (ancylostomiasis), malaria and Chagas disease (American trypanosomiasis). The concerns about the communicability of the diseases that plagued the *sertões* was a strong argument in favour of the necessity of the intervention and escalation of the state's coercive power.

The author's confessed professional identity tied to the social sciences stresses a theoretical craftsmanship that is even more intertwined with his historical expertise. Hochman's conceptual synergy and historical analysis has stood the test of time, but not without the challenges as discussed in the last chapter of the book, such as the discussion about the 'natural' duties inherent to the state (p. 150). This translation gives a wider community of scholars the opportunity to have a fruitful dialogue with the ideas orchestrated in *The Sanitation of Brazil*. The renewed interest in spatial categories in history and approaches that highlight tensions between the national, local and supranational scales, will stimulate fresh readings and questions. This new edition showcases the refinement of Hochman's scholarship and also the necessity of bringing cogent ideas to history from outside the discipline, particularly at a time when Brazil's universal health care system is facing great political challenges.

Gabriel Lopes

Casa de Oswaldo Cruz – Fiocruz Brazil

doi:10.1017/mdh.2017.84

Andrew J. Hogan, *Life Histories of Genetic Disease: Patterns and Prevention in Postwar Medical Genetics* (Baltimore, MD: Johns Hopkins University Press, 2016), pp. 280, \$40.00, hardback, ISBN: 9781421420745.

This is an insightful reconstruction of the history of medical genetics, where chromosomes as concepts and images retained their own conceptual and explanatory powers throughout the second half of the twentieth century. The book is composed of a set of episodes, each of them dealing with a genetic disorder whose diagnosis included techniques, instruments and ways of looking at the genome. It moves from the immediate post-war idealised,

schematic images and rough microphotographs of chromosomes via DNA fluorescence *in situ* hybridisation (FISH) to the subsequent molecular ‘gaze’. Naming styles and classifications suggesting an objectivity that molecules, or pieces of them, were expected to provide, participated in a long history of laboratory techniques and the clinical concepts associated with them. Andrew Hogan keeps a careful eye on the clinical and anatomical meaning of the successive concepts. Pieces of the genome are recognised in his narrative as the molecular side of a set of malformation patterns associated with muscular weakness, obesity, small genitals and intellectual development disorders, which are involved in the definition and diagnosis of Prader–Willi syndrome, one of the disorders whose history is scrutinised. The history he recounts is that of a transnational set of disorders, an increasingly promising clinical space built upon a technologised practice of looking at malformations and disorders, the designs and methods of which took part in the emergence of the genetic platform – to use the term that Keating and Cambrosio have coined for this complex set of practices. Inspired by the views, texts and statements of the well-known United States geneticist Victor McKusick, Hogan follows both the clinic and the cytogenetics laboratory and later the molecular genetics laboratory by introducing patients’ perceptions. And even with such a constellation of agencies and frameworks, the reconstruction works perfectly well. From anatomical traits and scientific inquiry to clinical purposes, the routes taken led to an issue that comes back again and again: the fact that treatment and prevention turned out to be unlikely participants in a story centred on the diagnostic powers of twentieth-century medical genetics.

In the introduction the author presents the issue of the relationship between prenatal diagnosis – the author’s confessed early interest when beginning this research – and medical genetics and eugenics. He summarises the main themes tackled, namely genetic syndromes and bodily malformations as clinical and laboratory issues. The first chapter focuses on the organisational aspects of early medical genetics by focusing on the reconstruction of the intellectual disability called X-fragile syndrome. Such a disorder allows the author to show that medical genetics provided diagnostic methods, but treatment was ‘to be understood as a secondary aim’. In the second chapter, Hogan introduces the trajectory taken by chromosome representations by elucidating the techniques that allowed cytogenetics to make human chromosomes visible. The capacities of such images, however limited, allowed the classification of disorders on chromosomal bases and thus provided a reference for detecting anomalies at the very origins of human gene mapping. Chapter 3 is dedicated to Prader–Willi syndrome and the paths toward an increasingly higher-resolution cytogenetic analysis, which in his words ‘never provided the level of enhanced vision its promoters had predicted’. The fourth chapter deals with the introduction of experts and tools from molecular biology in the 1980s, when, during the intense research into recombinant DNA, molecules were envisioned as replacing chromosomes by combining the use of the microscope for chromosome analysis with molecular approaches, thus producing, according to Hogan, the hybrid technique that molecular cytogenetics became. Chapter 5 focuses on the convergent histories of two syndromes that came to be understood as the same condition: DiGeorge and velo-cardio-facial (VCF) syndromes. They were identified as a deletion of the same piece of chromosome 22, named as 22q11. While debates on the names given to these syndromes kept disputes about styles of knowing and the exhibition of authority alive, centres and websites emerged that contributed to institutionalising both their molecular names, and the names of the experts that dealt with them. Chapter 6 beautifully analyses another convergence: between the human genome as an almost endless chain of nucleotides, and the FISH technology that connected them and

finally preserved the banding chromosomes as a useful representation of the whole picture. This was useful for patients, clinicians and geneticists alike.

The history of genetic mapping develops as successive techniques were invented. The text is full of suggestive rhetorical and conceptual terms, which explain in a very precise manner how the laboratory bench came to have epistemological superiority over the clinical gaze. The narration effectively accounts for the advances in diagnosis that created the genetic culture of our time and its repositories. The history of medical genetics is presented in detail as a space composed of experimental knowledge and clinical practices that has never fulfilled its promise, but still went beyond scientists' expectations. The arguments are convincing, and the combined scholarship in history, sociology and medical genetics itself makes such a complex trajectory fully understood.

María Jesús Santesmas

Instituto de Filosofía, CSIC, Madrid, Spain

doi:10.1017/mdh.2017.85

Deborah Dolan Hunt, *Fast Facts About the Nursing Profession: Historical Perspectives in a Nutshell* (New York: Springer, 2017), pp. xvii + 154, \$35.00, paperback, ISBN: 978-0-8261-3138-6.

Fast Facts about the Nursing Profession is a brief, accessible and very informative text in the Fast Facts series, which provides practitioners with vital information leading to success in clinical practice. Unlike other volumes in the series which concentrate on clinical education and practice, this handbook is not a 'how to' book, but a history of nursing long before it was considered to be a profession. All contributors to the book are nursing instructors at American universities. Fast Fact chapbooks are designed to fill a gap in health education. In this case, the gap is the lack of historical content in contemporary nursing programmes. A foreword by Marilyn Klainberg states the purpose of the book, which is to introduce the historical and global foundations of nursing to those in the profession today. Klainberg maintains that contemporary nursing is a product of its history which has been shaped by global events such as politics, wars, religion, travel and the environment.

Stressing that the current literature on the history of nursing is not written from a global perspective, this book is intended to fill that gap. A preface by Deborah Dolan Hunt is a plea for including historical content in nursing curricula. Hunt acknowledges that the history of nursing is omitted for obvious reasons: time constraints, and an already overloaded range of courses. However, she maintains that students would understand their profession on a much more meaningful level if some history was studied. For over five thousand years, nursing, Hunt suggests, is and has been central to medical care. Nurses have played a unique role in the history of medicine, and arguably, a crucial role during periods of disruption such as wars, particularly the American Civil War, the Crimean War, the two World Wars, and the Korean War.

Brigid Lusk's chapter, 'The Relevance of Nursing and Why It Matters Today', raises difficult and critical questions about the history and professional identity of nurses, stating that, in contrast to physicians, nurses have often denigrated their own history to promote their standing. Examples of this trend include nurses criticising their own work during the twentieth century – 'they did little except maintain cleanliness and comfort' (p. 11) – and the allegation that the only 'real nurses' are those with a university education. The image of the nurse has been hurt by this 'rhetoric of rupture' (p. 11). This book seeks to