The Making of a Tropical Disease A Short History of Malaria

Randall Packard's *The Making of a Tropical Disease: A Short History of Malaria*, published in 2007, was a timely overview of the history of one of the most complex and ancient of all diseases. Indeed, Packard’s subtitle: ‘a short history of malaria’ is a modest one considering the depth and breadth of the range of topics relating to the history of malaria that Packard covers. But at just under 300 pages in length, in a highly accessible and well-organised format, this book has been widely read by scholars from a broad range of disciplines. In addition, chapters selected for their scientific or historical material have appeared on many seminar and course lists for undergraduate and graduate students. Charles Rosenberg’s introduction to Packard’s book, one of a series of ‘Biographies of Disease’ published by Johns Hopkins University Press, highlights the significance of the importance of the kind of narrative Packard has written to guide his reader through the historical past. Rosenberg’s own research on health and disease and his legacy through the work of his students has echoes in the Packard book. While the series – a biography of disease – places the focus on the disease, Packard, true to his historical roots in the political economy of disease, treatment and prevention has written much more than a biography of malaria. Paying due respect to the sciences of entomology, parasitology and, in passing, immunology, Packard reminds us that malaria is about people and that people live in multiple contexts. We need to understand these contexts of people’s lives, at the political, social and economic levels, to appreciate the complexity of living and dying with this ‘burden of disease’.

*The Making of a Tropical Disease* was published some ten years after the malaria community, driven by concerns of scientists in sub-Saharan Africa, galvanised the World Health Organization (WHO) to make the eradication or elimination of malaria a priority. With the announcement of ‘Roll Back Malaria’ (RBM) in
1997, scientists were excited and wary of a program designed to build upon the experience of a successful smallpox eradication campaign and a not-completely-successful malaria eradication campaign. Encouraged by the WHO's leadership and the support of the scientific research community, international funding partners showed a willingness to engage in funding malaria research and field interventions. As Packard has stated, this decade marked a malaria boom, which he aptly termed, a ‘growth industry’. As of 2002, malaria had a dedicated journal – an online publication facilitating rapid distribution of research and practice. By 2007, the year this book was published, the WHO through a revitalised Roll Back Malaria program, the Global Fund the US Gates Foundation, the UK Wellcome Trust and many other stakeholders had invested and, for some, re-invested in malaria control, eradication and elimination. However, the malaria story does not begin in the 21st century. While the scientific discoveries of causes and mechanisms of transmission cross the late 19th and early 20th centuries, as Packard forcefully explores in The Making of a Tropical Disease, it is the long history of attempts to rid the world of malaria we need to understand to effect sustainable change in the 21st century.

Packard, an Africanist historian, with an academic background in the history of infectious diseases (notably his pioneering monograph on TB) brought his critique to a wide audience in the global health/development world. Packard’s field experience and scholarship produced one of the most thoughtful and critical monographs of the past ten years on malaria.

Following on from his work on TB, Packard joined the international History of Malaria Network and, together with other historians of medicine, as well as some of the great malarialogists who had worked both in the field and the laboratory over the course of the second half of the 20th century, formed a gathering of scholars and practitioners conscious of the importance of linking science and history. For malaria, the sciences were many – entomology, immunology, epidemiology, and clinical medicine. The humanities components included demography, geography and history. This group of researchers met on a number of occasions between 1990 and 2000 to discuss and debate the successes and failures of attempts to control and eradicate malaria in a number of regions of the world. They asked how a broader and deeper understanding of the history of malaria could inform contemporary knowledge and practice for the present and future. They made these debates available through published proceedings, particularly in the journal Parassitologia. Packard’s ‘No other logical choice’ article was a significant contribution to the malaria eradication story.

In this book Packard took many approaches to the question of learning from the past to inform the present and future endeavours to rid the world of malaria. He provided the reader with a succinct and informative overview of malaria as an ancient disease and a reminder that malaria was once endemic in the temperate world (from the Arctic to Australasia), although today it is now a disease of the sub-tropical and tropical world. He reminded us through the use of case studies from Southern to Northern Europe, South Asia to North America of the need to understand and appreciate the complexities of locality with regard to malaria as an endemic or epidemic disease. Packard did not shy away from the global perspective as discussed in both his introduction and final chapters.

Perhaps the complexity has been best summarised by the malarialogist, Lewis Hackett, in his oft-quoted comment on malaria – ‘Like chess, (it) is played with a few pieces but is capable of an infinite variety of situations.’ Packard addressed this ‘variety’ in a number of ways. Both the introductory chapter, ‘Beginnings’, which described the ecological context for the development of malaria, and the chapter titled ‘Making of a vector-borne disease’ provided the reader with sufficient scientific background to appreciate the complexity of the epidemiology of malaria. They served as an accessible entrée into the understanding of malaria as a disease. His links from science to practice are demonstrated in the case studies (chapters two, three and four).
Through these chapters and in the case studies themselves, the reader finds summaries of the scientific rationale for 20th-century decisions on malaria control and eradication. The later chapters, ‘Malaria dreams’ and ‘Malaria realities’, brought this narrative into the 21st century – old challenges of migration and increased malaria transmission, formerly within a country or region, now traversing continents to the ‘new’ populations carrying the parasite into areas malaria-free yet potentially epidemic.

It is Packard’s political economy approach that stood out as a timely and welcome contribution to understanding historical successes and failures regarding malaria. In an interview with Gilberto Hochman, Packard reflected on comments voiced by his critical readers that ... ‘He takes a political economy perspective on everything he sees.’ (5) While true, this is precisely the strength of Packard's writing. Through his many articles and books, the subject matter changes but Packard is consistent in his commitment to this analytical perspective. This book, as with the corpus of his publications, pose a relentless challenge to readers to acknowledge and consider the process of decision-making, of the archaeology of events – constructed, produced and always better understood from within a deep analytical framework of political economy.

In this same interview, Packard stated that historians should become more like anthropologists – cultural explorers who critically look inside process to understand why and how situations develop, change and continue. (6) To this writer, Packard has always seemed more like an archaeologist – digging every deeper to uncover the layers of understanding, of what Nancy Krieger has called the ‘webs of causation’. Packard understood the importance of the social determinants of health and disease long before the WHO's Commission and Report (7) and the growth in the popularity of this approach within public health.

So how does this ‘political economy’ approach to the history of malaria help us to understand the past and the current challenges of malaria? Packard chose case histories as the central chapters of his book. The case histories drawn from South Asia and North America, Western Europe and Southern Africa underscore the complexity of malaria on the ground, in bodies, in local contexts. Situating malaria narratives within agrarian transformation reinforced the links connecting local producers, markets, accumulated capital and human actions to malaria as disease. Employing the epidemiological construct of interaction cleverly connected the science of malaria and human ecology, more in the guise of an epidemiologist reaffirming the importance of a population-level approach to the understanding of malaria as disease. Packard asks readers to see malaria as an ‘opportunistic disease’, a term more often associated with HIV/AIDS and TB. His categorisation of three scenarios of agricultural transformation connected with malaria-- firstly, stagnating agriculture and continued exposure; secondly, agricultural improvement and a decline in malaria; thirdly, agricultural expansion that effects continued or increased malaria infections provided a framework within which opportunism could be explained through changes in conditions that effected changes in incidence and, over time, prevalence.

Packard attempted to unravel, perhaps here less successfully, the links between malnutrition and malaria. Most historians of malaria would agree that nutrition linked to immune response must play a role in disease acquisition if only in association or as a risk factor – but the evidence is fractured and inconclusive as cause/effect. In much the same way as malarialogists in the 1960s and 1970s tried to demonstrate the economic costs of malaria as a justification for sustained interventions, today’s researchers concerned with links between delayed cognitive development in school-age children and their experience of malaria face similar challenges. There is a long time-lag between exposures and outcomes, insufficient evidence and inadequate tools to measure these relationships.

The final chapter on ‘Rolling back malaria’, together with the concluding chapter on ecology and policy, are most useful to those interested in the role of international agencies and health policy. While the WHO’s RBM program has redefined its goals and methodologies since 1997, challenges remain. These chapters move the reader into current debates on global health.

What is it then about this book that stands out – that places this work in the company of those important
works of the past twenty years? I would argue that it is the depth and breadth of this biography of malaria that is compelling. We live in a world of aggregate data – of intensive modelling – of brilliant discoveries at the genomic level and yet, as a leading parasitologist once remarked as he watched the demonstrations of how we would attack malaria at the chromosomal level upstream/downstream, ‘he (the epidemiologist presenter) wouldn’t know a parasite if he saw one’. Packard reminds us of key discoveries – the parasite, the vector, the role of human hosts – and the complexity of relationships that contribute to making malaria a disease. This is not a book on parasitology or entomology – but a reminder to the malaria world to be cognizant of contexts – those we see and those hidden by time, by history.

Historians use time – need time – take time when carefully constructing a history that will resonate with the contemporary period. This book is just that – bringing forward historical case studies on malaria together with a critical rendering of the most important program on malaria control – the WHO’s Roll Back Malaria program, now almost 20 years old. We have not solved the problems of malaria. It is this that compelled an historian with the insight and experience of Randall Packard to challenge what had gone before, pointing to successes and failures and continuing the clarion call for better research, better tools, better results, fewer infections and fewer deaths.

Notes

1. Marcel Hommel, ‘10 years of Malaria Journal: how did open access change publication patterns?’, Malaria Journal, 9 (2010), 284. Back to (1)
7. World Health Organization, Closing the gap in a generation: Health equity through action in the social determinants of health (Geneva, 2008). Back to (7)

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[1] http://www.history.ac.uk/reviews/item/165269