

BOOK REVIEW

Junho Jung 정준호, *This Wormy Nation: The Rise and Fall of Parasite Eradication Program in Korea* 구충록: 기생충의 흥망성쇠로 본 한국 근현대사 (Seoul: Humanitas, 2023), 302 pp.

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South Korea was notorious as the “kingdom of parasites” until the 1960s. More than 90 percent of South Koreans were infected with parasites. However, the infection rate plummeted to just 0.8 percent by 1989. What accounts for this remarkable change? Junho Jung’s book, *This Wormy Nation*, argues that it was primarily the result of South Korea’s extensive parasite control program, which was implemented from the 1970s through the 1990s. This narrative might appear to be a nationalistic success story about effective parasite control. Nevertheless, Jung’s analysis shifts the focus away from such triumphs, instead examining the role of parasites as non-human actors.

The author conceptualizes parasites as pivotal actors that constitute the society. His approach unveils the ecological interactions between pathogens and humans that classical disease history, often framing this relationship in adversarial terms, fails to address. This book illustrates how parasites shaped the daily lives of most Koreans from the 1970s through the 1990s by mobilizing diverse resources and driving behavioral changes. In this vein, the parasite control program is interpreted as the outcome of a complex interplay not only among medical professionals, activists, and the public, but also involving an array of non-human actors including screening tools, drugs, animal hosts, and the parasites themselves.

Furthermore, the author emphasizes the transnational network of parasitology that emerges from interactions between humans and parasites. Parasitology necessitates a close linkage between the laboratory and the field. Unlike general microbes, parasites grow only in specific hosts, making laboratory culture exceptionally challenging. To obtain research specimens, parasitologists travel to endemic regions, to collect, study, and control parasites. Paradoxically, advancements in their fieldwork lead to the depletion of available research materials. This prompts parasitologists to

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seek new study locations. The ecological characteristics of parasites resulted in the transnational mobility of parasitologists.

Within this framework, the book traces the development of parasite control in South Korea, examining five key events in chronological order. Following Chapter 1 introducing the author's perspectives, Chapter 2 delves into the epistemological transformation of parasites in South Korea from being essential to survival to becoming targets for eradication. The author offers a detailed analysis of the various factors that influenced this shift in perspective, with a particular focus on South Korea's labor export policy in the 1960s. For instance, Korean miners sent to West Germany were treated as vectors of parasitic infections and were thus quarantined. This was reported in the South Korean media as hindering the country's economic development and creating a negative image of South Korea as an unhygienic and backward country. The exposure to such portrayals instilled a sense of shame among Koreans. Jung argues that these emotional responses were instrumental in fostering the perception of parasites as targets for eradication.

Chapter 3 explores how the Korean Parasite Control Association (KPCA, 한국기생충박멸협회) conducted a parasite eradication program from the late 1960s to the 1980s with technical support from Japan. The KPCA adopted Japan's model of parasitic control, relied on mass screening and mass treatment. This effort achieved a dramatic reduction in parasitic infection rates. Jung demonstrates that South Korea's effective adaptation of the Japanese model contributed to the formation of a transnational parasitic control network across Asia. Bolstered by South Korea's success, Japan subsequently extended its parasitic control model to Taiwan in the 1970s, where it also proved to be highly effective. The collective success of these three countries facilitated the organization of the Asian Parasite Control Network, which aimed to expand their influence by supporting parasite control initiatives in other Asian countries.

Chapter 4 traces how localized knowledge about filariasis was produced and shared internationally through a Korea-Japan joint research project on Jeju Island in the early 1970s. Jeju Island, with its distinctive ecological environment, was endemic to filariasis, a disease rarely seen elsewhere in Korea. To investigate the epidemiological features and develop treatment guidelines for filariasis in this region, Korean and Japanese parasitologists performed fieldwork on the island. Jung underscores the crucial role played by local residents in this endeavor. These local collaborators translated the Jeju dialect, elicited cooperation from other residents, and provided researchers with treatment data. Consequently, the results of the Korean-Japanese filariasis study were profoundly influenced by the local context of Jeju Island. Nonetheless, the findings transcended regional boundaries and were discussed within a broader parasitology network involving Korea, Japan, and the United States, ultimately contributing to the World Health Organization's treatment guidelines for filariasis. This example illustrates how local knowledge can become part of international research.

Chapter 4 also discusses the migration of filarial worms from Jeju Island to laboratories in other regions such as Japan and the United States. Jung builds upon the Actor-Network Theory to argue that this process involved the “domestication” of natural filariae for experimental settings. Japanese researchers sought to establish standardized host species, or model organisms, for the cultivation and transport of the filariae collected from Jeju. The development of such model organisms encouraged global filarial research by ensuring a stable supply of filariae even in regions where they were not naturally present. This increase of filarial research enhanced the standing of Japan and Korea within the international parasitology network.

Chapter 5 covers the development of praziquantel, a liver fluke treatment, in South Korea from the late 1970s to the early 1980s. The collaborative networks formed among parasitologists, pharmaceutical companies, and the government during South Korea’s parasitic eradication programs of the 1960s and 1970s enabled the rapid adoption, modification, and application of foreign pharmaceutical technologies. Shinpoong Pharmaceutical (신평제약), a South Korean company, with the assistance of parasitologists, modified the praziquantel production techniques developed by Merck and Bayer, resulting in a more streamlined and cost-efficient manufacturing process. Although Merck and Bayer raised objections concerning patent rights, Shinpoong was shielded by the South Korean government, which allowed the company to supply praziquantel at reduced prices for mass treatment programs, both domestically and internationally.

Drawing on its achievements in parasite eradication, international collaborative research, and the development of cost-effective anthelmintics, South Korea nearly achieved the complete elimination of parasitic infections by the 1990s. Chapter 6 elucidates how South Korea has exported its parasite control model to other developing countries since the 1990s. The convergence of Korean parasitologists’ need for new research materials and the government’s strategy to elevate South Korea’s international standing catalyzed the initiation of parasite control aid programs across Asia and Africa. Prominent examples include the liver fluke control program in China from the mid-1990s to the 2000s and the schistosomiasis control program in South Sudan from the late 2000s to the 2010s. In both regions, South Korean parasitologists and activists promoted their model centered on mass screening and mass treatment, shared the necessary knowledge and skills, and provided large amounts of praziquantel. These efforts significantly enhanced South Korea’s influence in the global network for parasite control.

The foremost strength of this book lies in its sophisticated framework for analyzing the transnational exchange of medical knowledge and technology, a topic that has been widely explored in recent scholarship on Korean medical history. Medical knowledge and technologies in postcolonial Korea were shaped by the complex interplay between the former Japanese imperial medical network linking Korea, Taiwan, and Japan, and the Cold War diplomatic system in Asia dominated by the United States. This interplay is particularly evident in the realm of science diplomacy

related to public health, where various factors—such as the reduction of U.S. foreign aid, Japan’s efforts to restore its international image and establish itself as a middle power through aid, and South Korea’s diplomatic strategies to become a regional middle power within Asia—were closely interconnected. Jung meticulously unravels the intricate network of modern scientific knowledge and technology in East Asia. Additionally, Jung effectively highlights the role of non-human actors in the formation of scientific knowledge and technology. He provides a detailed account of how parasites with unique ecological traits, cost-effective production methods for praziquantel, and mass screening techniques that reduce parasite examination times shaped the parasite control systems. This analysis is grounded in Jung’s experiences as a medical historian, parasitologist, and social activist. In this respect, this book offers significant insights for those interested in the history of medicine, science, and technology in East Asia, science diplomacy, and transnational history.