Book review

Beijing garbage – a city besieged by waste

S. Landsberger, Amsterdam University Press, Amsterdam, the Netherlands, 2019, €99.00 (£86.50), 232pp

This fascinating book is part of the Amsterdam University Press series on Consumption and Sustainability in Asia. The content stems from the 'Garbage Matters: a Comparative History of Waste in East Asia' project funded by the Netherlands Organization for Scientific Research, and is based on fieldwork undertaken by the author in Beijing on the waste management system. While the focus is on Beijing, the book contains holistic information on Chinese waste management and many themes covered are global issues – as such the text should be of interest to all *Waste and Resource Management* (WARM) readers.

The author, Stefan Landsberger, is Olfert Dapper chair of Contemporary Chinese Culture (emeritus) at the University of Amsterdam, and associate professor of Contemporary Chinese History and Social Development at the Leiden Institute of Area Studies. Landsberger's expertise on Chinese culture and society makes him an ideal author.

The book is logically split into seven main chapters, each focusing on elements of the waste system. Chapter 1 provides the background on the development of Beijing and the waste management system. The text is annotated with striking images of campaign and propaganda posters from the 1960s/1970s encouraging recycling with slogans such as '*Don't throw away broken leather shoes, recycle them to turn them into fertilizer*' and '*Eagerly sell old and useless materials to support the construction of socialism*'. Of particular interest is the section on the 'Reform and Opening' policies of Deng Xiaoping in the 1980s leading to consumerism and waste growth: in 1980, 3000 t/d of municipal solid waste was generated in Beijing, by 1985 levels had almost doubled to 5800 t/d, and by 1990, 9050 t/d was generated!

Chapter 2 covers the current waste system in China including laws and regulations, compliance and circular economy. It moves on to focus on recycling in Beijing including the role of formal recycling companies and the use of reverse vending machines and recycling apps.

Subsequent chapters focus on the role of stakeholders – the 'human factor'. The chapter on residents – 'the garbage producers' – includes information on housing and social structures, source separation schemes and the influence of demographics on waste behaviour. The chapter on 'garbage pickers' considers how the informal sector took over recycling when formal structures disappeared in the 1980s. It highlights the complexities of the informal sector and the layers of recyclers involved throughout the value chain. The chapter on non-governmental organisation (NGO) and voluntary environmental groups explains the development of these groups in China and presents results from interviews with four Beijing groups seeking their views on a range of topics.

The final main chapter addresses the politics of incineration (Energy from Waste). Historically, China has relied on landfill but due to landfill now being undesirable, by 2013 landfill disposal had dropped to 62%. International Energy Agency data suggest China has the largest global energy from waste capacity of 7.3 GW across 339 plants handling 100 Mt/annum. The chapter profiles the development of the incineration infrastructure in Beijing including the public perceptions. A further chapter considers waste education in Beijing with the final chapter presenting Landsberger's reflections and recommendations.

This was an informative and accessible read. A strength was the thoughtful commentary on the social and political contexts of waste and China per se – here Landsberger's expertise on China and enthusiasm for the topic shines through. The text is particularly recommended to WARM readers interested in China or global waste systems, similarly those interested in qualitative data collection. Of particular use for students/researchers are copies of questionnaire and interview questions, which can be used to inform future research. The fieldwork is supplemented with extensive references to literature. The book focuses on municipal solid waste – as such there is no consideration of construction and demolition waste but overall an excellent and informative text on waste in Beijing.

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