

**Ballestero, Andrea. 2019. *A Future History of Water*. Durham, London: Duke University Press. 225 pp. Pb.: \$25.95. ISBN: 9781478003892.**

Book review by

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*A Future History of Water* is an important contribution to the literature on urban infrastructure, water policy and the urbanisation of the global south, as well as to environmental anthropology. The book reveals how widespread global water policy is; the policy of water pipes, the functioning of local policy and the unforeseen consequences of economic reforms.

In the introduction, Ballestero highlights a significant question; whether the water that people pay for is still a human right or does it turn into a commodity the moment it acquires value. She shows interest in knowing what water as a human right means: 'If water is to be a human right, and not a commodity, how do you differentiate these two legal and economic formulations?' (p. 3). Through ethnography in Costa Rica and Brazil, she explores the conflict between water as a human right and water as an economic good. Page by page, the author takes us with her on fieldwork among state officials, NGOs, politicians, and Costa Rican and Brazilian activists.

This monograph focuses on the four devices used to shape the history of water and the technical crafts of knowledge and practice that will shape its future. The monograph analyses these devices in four chapters, titled *Formula*, *Index*, *List*, and *Pact*. Ballestero equates these devices with ethnographic objects. 'As we see, commodities and human rights are generative ethnographic objects; they are classifications already shaping the world' (p. 3). These forms make it possible to understand how laws and morals are ar-

ticated and normalised in everyday life through water pricing or legislative reform. Among these, the first three chapters are based on the author's fieldwork in Costa Rica and the last chapter in relation to water in Brazil.

The first chapter deals with an interesting device called *Formula*, which examines the work of economic regulators who calculate the price of water meant for human consumption in Costa Rica. These regulators set the price to exclude profit, since it is prohibited on legal principle. These calculations attempt to follow both legal and humanitarian commitments for the realisation of water as a human right. Based on a case study of the Costa Rican city of Cocles, the chapter discusses how water level readings are transferred to an Excel spreadsheet, and then a formula is used by regulators to calculate a price that covers water supply costs but excludes profit. Formulas become a so-called mediator between financial capitalisation and humanitarian concerns. Thus a technical formula seeks to create a just water future, and mathematical formulas become a social theory.

In the second chapter, Ballestero shows how the price index is used to validate the human right to water. The index is intended to track the water consumption of the country's households, their income and to later cyclically adjust the price of water based on inflation and other economic factors. The purpose of consumer price indexation is to support people's rights to water by ensuring its accessibility. This device shows 'the unexpected connections between changing consumption patterns in Costa Rican households and the cyclical adjustment of water prices to enact the World Health Organization's prescription that if water is to be an affordable human right, households should pay no more than 3 percent of their monthly income for it' (p. 33). However, reality proved that poorer households could spend up to 10% of the income on water bills. Common goods such as *water* also become active participants with this device in global efforts. The cost of water is taken into account in proportion to other expenditure on household items, and water rights are thus transferred to them. In practice, regulators in Costa Rica leave pricing determination to the consumer price index (CPI). The result of the CPI is that water as a human right becomes valued in relation to household items, chosen by the Statistics Institute that calculates the CPI, even if in reality most households are not able to afford them. This chapter shows the relation between water price-fixing and inflation; when human rights keep markets from determining its price and when payment is essential to enjoy a human right.

The third chapter explores the device called *List*, which is capable of recognising the human right to water. The chapter criticises libertarian efforts to claim water as a public

good. This is because although the Libertarian Party in Costa Rica has created a complex list based on the materiality of water, which specifies what types of water and water bodies are to be covered by constitutional reform. The list was nothing more than Libertarians turning water into a contentious and symbolic issue, thus making it a substance through which they could assert their ideological point of view. They argue that property owned by no-one causes overexploitation of water while they simultaneously ignore long-standing accounts of successful common-property regimes. With the constitutional demands and complex list, they try to challenge attempts to pursue water as a human right.

In the last chapter of the book, the author moves to the state of Ceará in Brazil. This chapter discusses *Pact*, which is based on the idea that the living conditions of people need to be taken into account. In general, the pact proposes a form of active collective care and that every member of the society is responsible for its implementation. In practical terms, the pact required the commitment of the people to solve the immediate problem of water scarcity, pollution, climate change and learn how to protect water. The pact sought to promote water care as a way to leave politically commodified water behind. It was a bottom-up approach that appeared to replace a partial top-down approach to address water scarcity, access, and conservation issues.

After a thorough analysis of the four devices, it can be seen that water is becoming a major political and corporate issue and not just a concern for environmentalists and inhabitants. Water policies flow in different areas, and the devices are spreading in different areas of collective life and in all kinds of environmental and political conditions. The line between human rights and commodities of the water is extremely thin, and Ballestero shows that no human right can be enjoyed without payment. She also successfully shows how the future is constantly being (re)produced from people's everyday actions. Through a careful choice of devices, the author encourages the reader to think globally about the human right to water and shows how many factors, outside of laws and treaties, still contribute to supporting and shaping the recognition of water as a human right.