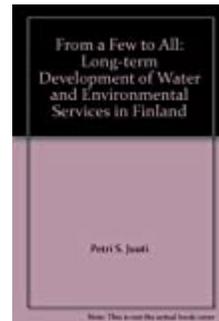




**Petri S. Juuti, Tapio S. Katko, eds.** *From a Few to All: Long-term Development of Water and Environmental Services in Finland.* Pieksämäki: KehräMedia Inc., 2004. 175 pp. EUR 25.00 (paper), ISBN 978-951-98151-2-1.



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## Entering the Invisible Cities of Finland

I visited Finland for the first time at the beginning of the 1980s. It happened during a summer holiday when I traveled with my parents by car from Vaasa to Tampere. From that trip I learned two things about the country: that there are plenty of lakes, in fact some 180,000 (10 percent of the surface area), and that the taste of the tap water was quite bad. I did not even like the Finnish lemonade. For a child this situation was difficult to understand. How come that tap water, in a country with so many beautiful lakes, had such an unpleasant taste?

The quality of drinking water in Finland is much better today than it was some twenty-five years ago. According to a recent survey, the quality is even one of the best in the world. This progress of water quality has a history, and for those who have an interest in the development and planning of water services in Finland I can recommend the book *From a Few to All*. It is an anthology on water supply, waterworks, and sanitation that contains an unusual mix of papers from different academic fields, dealing not only with the past (from the beginning of the nineteenth century onward) but also the present situation as well as questions concerning the future. Several

of the papers are articles already published in, or submitted to, different professional journals, and some are English summaries of books published in Finnish. The papers are put together with a common layout, which makes the reading pleasant. However, the editorial work seems to have been a rushed job because there are a few too many typographical errors.

Both editors are based in Tampere: Petri S. Juuti at the Department of History, University of Tampere, and Tapio S. Katko, at the Institute of Environmental Engineering and Biotechnology, Tampere University of Technology. The other six authors who have contributed to the volume—Jarmo J. Hukka, Henry Nygård, Riikka P. Rajala, Antero A. Luonsi, Jari Y. Kaivo-oja, and Osmo T. Seppä—are not introduced in any detail.

Apart from a foreword by historian Timo Myllyntaus and a short epilogue by the editors, *From a Few to All* is divided into three sections. The first section has three partly overlapping chapters entitled “Long-term Development of Water and Sewage Services in Finland”; “Early Attempt to Privatize—Any Lessons Learnt?”; and, “Views on the History of Water, Wastewater and Solid Waste

Services.” The aim of these chapters is to present the overall development, or a big picture, of the implementation, establishment, and evolution of practices, technologies, institutions, legislations, and attitudes concerning urban and rural water and sanitation services over one and a half centuries. One thing that is underlined is that it is fire, thirst, health, and hygiene—not a general sanitary awakening or the progress of science and technology—that are key words in this history. Another thing stressed is that it is possible to talk about a typically “Finnish model” based on three main organizational principles. First, cooperation between public and private sectors, which means that the services are provided by publicly owned utilities that operate on a nonprofit basis but adhere to commercial principles. Second, the services have to a high degree been covered by direct consumer payments, not by the government. Third, rural water supply has been organized through consumer managed water cooperatives.

Part 2 is a collection of four case-studies from various urban environments in the south of Finland: “From Polluted to Swimmable Waters—Tampere City Water and Sewage Works, 1835-1998”; “Water and City—Environmental History of Water and Sanitation Services in Tampere, Finland, 1835-1921”; “For the Environment and Health [sic]—History of Water and Sanitation Services in Porvoo, Finland”; and, “Water Naturally—Water Supply and Sanitation in Kangasala, 1800-2000.” What these chapters demonstrate is that, despite a common “Finnish model” regarding organization, water and sanitary services have developed in slightly different ways in different cultural, industrial, and environmental contexts. For example, depending on whether surface water or groundwater has been used, different problems with epidemics and pollution due to wastewater have occurred. The choice of raw water, together with the materials that have been used for the pipes, has also had an effect on the taste.

The third section, “Lessons Learnt and Policy Implications,” has two chapters that are quite different from the earlier ones. The first one, “Water Pollution Control and Strategies in Finnish Forest Industries in the Twentieth Century,” focuses not on municipalities but on the water management of the forest industry. That industry started to treat its wastewater with biological and chemical methods some 15 years later than the municipalities; for various reasons air emissions were looked upon as more important to take into consideration than water-related pollution. As the authors have noted: “As late as in the mid-1960s it was publicly suggested that wastewa-

ters along the Kymijoki river could be led through a tunnel without any treatment out to the Gulf of Finland in the Baltic Sea. The argument was that the volume of water in the Gulf was many times that of all inland waters” (p. 135). However, during the recent decades of environmental modernization, environmental concerns have become of greater importance, not least for the forest industries in the Nordic countries. In the last chapter, “Seeking for Convergence between History and Future Research,” we enter a methodological discussion on how research on the future could be informed by research on the past, and vice versa. Although water management in Finland is taken as an empirical example this conceptually sophisticated chapter is fairly abstract.

The different chapters offer a lot of history of technology, environmental history, and institutional history, but contain also details on contemporary chemistry and environmental engineering, as well as policy and planning discussions of interest perhaps mainly for authorities and the industry. According to my own preferences as a historian, Juuti’s chapter “Water and City,” based on his doctoral dissertation from 2001, is among the best. The book also represents a mix of qualitative and quantitative analysis, the first mainly based on interpretations of documents in city archives, local newspapers, and published articles and books (interviews and field trips have also been conducted). There are useful diagrams on, for example, water consumption of four different water utilities from 1900 to 1994 (showing that the volume has decreased since the 1970s), the growing number of wastewater treatment plants in Finland from 1910 to 1992 (showing that the number has increased immensely since the 1970s; the first plants, from 1910, were constructed in Lahti and Helsinki), and the production of the pulp and paper industry and its related wastewater load from 1950 to 2001 (showing that the production has increased at the same time as some waste has decreased).

Due to the scope of the book, the chapters have no explicit theoretical framework in common. It is, for good or bad, a truly interdisciplinary book. However, many authors prefer to use the concept “evolution” when they describe organizational and technological development, and one theory that is both articulated and sometimes put to work is the Path Dependence Theory. In this respect the works by Martin V. Melosi seem to have been one source of inspiration. This theory, which underlines that actors in some cases (to a high degree) are dependant on or limited by choices and decisions made in the past as well as existing material structures, is indeed useful for a long-term analysis of water and sanitation in-

frastructures and institutions. It has some similarities with Thomas P. Hughes's ideas on technological momentum, although my impression is that the theory lacks the geographical, or spatial, dimension that characterizes large socio-technical systems. Another resource for a detailed historical analysis of local technological projects could have been Actor-Network Theory, which the environmental historian Jonas Hallström has successfully used in his doctoral dissertation on the history of water supply, sewerage and excreta removal in the Swedish cities of Norrköping and Linköping (*Constructing*

*a Pipe-Bound City: A History of Water Supply, Sewerage, and Excreta Removal in Norrköping and Linköping, Sweden, 1860-1910*, Linköping University, 2002). Let me take the opportunity to recommend that book as well.

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