



Water Appropriation and Use in the City of Rio de Janeiro in the XIX Century

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The aim of this text is to analyze the relations between the development of the city of Rio de Janeiro and its water resources throughout the XIX century and in the first decade of the XX century, that is, from the period denominated the Age of Miasmas (Melosi, 2008) to the Bacteriological City (Gandy, 2004). The analysis will endeavor to contribute to a history of the nature in the city. We seek to view today's themes, posed by the issue of urban environmental sustainability, among which lies the sustainable use of urban water resources, in a historical perspective.

Throughout the period under study, there was reflection on various themes regarding urban water resources by doctors, municipal administrators and, later, engineers. Pursuing European theories, they identified a grave sanitation problem in the city arising from the hot, very humid climate and the characteristics of the city's site, confined as it was between sea and mountains, and featuring land below sea level where drainage was hindered, forming stagnant swampy areas. Therefore, the reflections involved the matter of how to drain the still water, preventing it from becoming stagnant, and how to mobilize flowing water of good quality to supply the needs. The two themes were central to analyses of the city's sanitation problems, including the miasmas attributed to the putrefaction of organic matter in the swamps.

In the course of the XIX century, national know-how in the field of engineering, influenced by imported models, began to be consolidated and associated with the medical knowledge. With this came a characteristic form of water flow control via networks and systems of supply and sanitation. The theory of the miasmas was surpassed by the discoveries made by Koch and Pasteur. New forms of water appropriation and use replaced those of the previous phase, though still based on public sources and slave labor. The urban water disappeared from the landscape: lagoons and swamps were filled in, and running water was canalized. New forms of water use, determined by the economic, social and cultural transformations, became established.

The question of control, and the debate about forms of water appropriation and use appeared in explicit reports about the city's physical conditions and in plans devised to orient its urban development. These are the main sources of analysis that we shall utilize in this work, emphasis lying on the reports and plans made between 1811 and 1906, in particular: the Beaurepaire-Rohan Report on Works - 1843, the Improvements Commission Reports (1875 and 1876), and the Pereira Passos Plan (1903-1906).

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