

# The challenges of seasonality in the operation of the Roman sewers: 1870-1900

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**Abstract:** Although rain is almost absent from the iconography of nineteenth-century Rome, this element was very present in the everyday life of the city, in particular during the autumn. Indeed, in 1862-1877 the average depth of rain per year (817.3 ml) was superior in Rome then, for instance, in London. However, this value had significant seasonal fluctuations. For example, a huge difference separated the wettest month of the year (November 110.44 ml) from the driest one (July 16.78). These variations between dry summers and wet autumns/winters created quite a few problems to the Hydraulic Service of Rome.

In fact, since 1870 the city experienced an urban growth that was accompanied by a process of renewal and building of new vital infrastructures to sanitise the urban space like sewers. Sewers operation in nineteenth century Rome faced two contradictory challenges. On one hand a lack of water during the summer and an overabundance of this element in autumn/winter with consequent flooding of the lowest parts of the city.

The purpose of the paper is to provide analytical insight on how seasonal variations in the depth of rain - and on the flux of water more generally - affected the operation of the sewers of Rome in late nineteenth century, and how the Roman Hydraulic Service tried to cope with these challenges.

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