Coronavirus and Past pandemics - 2020.04.27

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Specialized in hydrology, Ghislain de Marsily has mainly studied water resources, water contamination by human activities, and geological processes related to groundwater flows.

Many articles have already been published to draw parallels between the current epidemic and past respiratory epidemics, from the Spanish flu of the past century to the most recent epidemics (SARS, MERS, etc.).

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Ghislain takes us back in time, with a historical perspective on another epidemic: the plague and in particular ***the plague of Marseilles, which originated exactly 300 years ago.***

To better understand the current coronavirus crisis, I went back to the history of a slightly older crisis, the plague in Marseille in 1720[1]. The plague had arrived by boat, on May 25, 1720, on the Grand Saint Antoine ship, coming from the Middle East, and carrying bundles of fabrics. The City was in principle protected against this health risk by measures to control ships at the entrance and "infirmaries" to quarantine any sick people. Despite all these precautions, the clandestine unloading of goods by sailors and the desire of merchants to put the goods on sale quickly led to the outbreak of the plague, which then spread like wildfire. The city was enclosed by the Parliament of Aix and under the authority of the Regent, no one entered or left Marseille.

The purpose of the containment was mainly designed to prevent the disease to spread outside the city and contaminating the region. Half of the city's population will die, about 50,000 people.

The plague began to recede from October 1720, but it still left the City of Marseille and caused between 90,000 and 120,000 deaths in the region, including Marseille, out of a population of about 400,000 people.

This is the last great plague epidemic in France. It is known that the bacterium responsible for the disease, Yersinia Pestis, which is therefore not a virus, was only discovered in 1894 by Alexandre Yersin, a Franco-Swiss bacteriologist working for the Pasteur Institute, during a plague epidemic in Hong Kong; Yersin also developed a vaccine against the disease. Subsequently, a treatment with antibiotics was developed in the 20th century, but by 1720 there was no known effective treatment. The

[1] Scenes from the life of Marseillaise during the plague of 1720, by Dominique Cier, Actes/Sud, 1979. See also Wikipedia "Great Plague of Marseille".