

Great Inventions of the 19th Century | Water: The fount of all life | Water distribution

Access to clean water is a human right and water distribution is essential to new lifestyles.

During the 19th and the early 20th centuries, water distribution was part of the modernising programmes taking place in both Europe and the Arab and Ottoman world. The main challenge was the enhancement of city life with modern water supply services. The technical implementation of water distribution was seen as another aspect of “progress” and as a modern method of preventing epidemics. It is worth noticing that this was also carried out in continuity with the past. The need for water distribution had been as strong as in previous centuries for hygienic or religious reasons. “Modern” water distribution was based on state-of-the-art steam machines and pumping techniques, but in some cases, such as the aqueduct of Zaghouan in Tunisia, ancient infrastructure was adjusted to contemporary needs.



Working Number: LB 015

Name: The Beirut water factory

Holding Museum: Ministry of Water and Energy

Date: 1896

Materials: -

Curator Justification: Water distribution based on modern technology was implemented in the second half of the 19th century through the reforms issued by the Ottoman sultans. For example in Beirut, water treatment and distribution was organised through the Beirut Water Company in Dbayeh.



Working Number: LB 007

Name: Map of Beirut's water networks

Holding Museum: Khalil Itani's Archive

Date: 1873

Materials: Plot handwork

Curator Justification: This map shows the network of water distribution from Nahr el-Kaleb (river) through Beirut. Implemented from 1873 onwards, the Ottoman reform of water distribution in Beirut organised the treatment and distribution of water – an example of the reforms that reshaped urban infrastructure.



Working Number: TN 029

Name: Zaghouan aqueduct

Holding Museum: -

Date: 1852

Materials: -

Curator Justification: Water distribution for daily use was also one of the great concerns of the reformers in Tunisia. During the government of Muhammad Bey, the ancient aqueduct of Zaghouan was modernised by the French engineer Pierre Colin, with a system of pumps bringing water to Tunis.



Working Number: TR2 114

Name: Istanbul water pipeline map

Holding Museum: Istanbul University, Nadir Eserler Kütüphanesi (Rare Books Library)

Date: 19th century

Materials: Photograph

Curator Justification: Cendere Hamidian Water Pump Station provided water for some areas in Istanbul using steam machines. It can be considered the modern counterpart of an ancient tradition of dams and hydraulic works in Ottoman Turkey and as the prosecution of a tradition of water treatment and distribution in the Islamic cities through water reservoirs and fountains.



Working Number: TR2 145

Name: Water pumping equipment in Ka#thane, Istanbul

Holding Museum: Istanbul University, Nadir Eserler Kütüphanesi (Rare Books Library)

Date: Beginning of the 20th century

Materials: Photograph

Curator Justification: A photograph from the Y#ld#z Album of Sultan 'Abd al-Hamid, showing the steam machines for pumping and distributing water from Cendere Hamidian Water Pump Station to Istanbul. The Y#ld#z Album is a vast collection of photographs documenting all the technical, educational, social, military and civilian innovations introduced in the Ottoman Empire by Sultan 'Abd al-Hamid.



Working Number: TR2 146

Name: Water pumping equipment in Ka#thane, Istanbul

Holding Museum: Istanbul University, Nadir Eserler Kütüphanesi (Rare Books Library)

Date: Beginning of the 20th century

Materials: Photograph

Curator Justification: A photograph from Y#ld#z Album of Sultan 'Abd al-Hamid, showing the steam machines for pumping and distributing water from Cendere Hamidian Water Pump Station to Istanbul.



Working Number: PT 008

Name: Barbadinhos Steam pumping station

Holding Museum: -

Date: Built between 1871 and 1880

Materials: -

Curator Justification: Pumping stations show interesting parallels across Europe and the Arab and Ottoman world, testimony to how modernisation followed a common path: distant countries with similar approaches to modernity

or similar economic activities were reshaped by the globalisation of technology and needs.
