

Eszterházy Károly Catholic University  
Doctoral School of History

László Fazakas

**Public works in Kolozsvár.  
Social and economic aspects of the const-  
ruction of the water and sewerage net-  
work 1790-1914**

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## **The subject of the thesis**

Nowadays, we ignore the fact that our households have water, electricity, gas and sewage. Yet these technical installations, collectively known as utilities, are the cornerstones of our modern way of life. Their absence becomes painfully obvious only when one of these services breaks down due to a fault. It is then that we realise how important it is to have water running from the tap, a light bulb to keep the lights on, a flush toilet, and gas to provide heat. How much more comfortable and smooth they make our daily lives. In fact, it is the utilities that make the biggest difference between the city dwellers of the past and those of the present. If it weren't for these utilities, we would probably heat, light and clean the same way we did hundreds of years ago. Fortunately for us, the industrial revolution has ensured that this is not the case. The resulting social and economic transformations have brought about changes of such elemental power that they have both forced and enabled the construction of modern utility networks.

The process was partly the same in Hungary, although both economic and social changes in the region - with the exception of Budapest - occurred much later and at a much lower rate than in Western Europe. Nevertheless, in the last third of the century, and especially from the 1890s onwards, the construction of public utilities began in the major Hungarian cities. In some settlements there was electric lighting, in others water supply. When and with which utility system a town started this process depended largely on local needs, the attitude of the political and economic elite and the financial situation of the municipality. The socio-economic requirements for the construction of a particu-

lar utility, such as a water supply, also varied from one municipality to another. Of course, the main reasons are the same everywhere, but in one town the primary concern was fire protection, in another the introduction of clean drinking water, or the irrigation of streets, or satisfying the manufacture industry. The same is partly true of sewers, street lighting and other utilities. What was similar almost everywhere, however, was the sequence: in most cases, the construction phase followed the creation of the need, whether physical or conceptual. It is rare to find a case where the municipal government has built utilities ahead of the need.

Around the turn of the century, practical needs were combined with a very strong progressive orientation, which included public utilities among the mandatory urban improvements. This essentially meant that municipalities whose socio-economic situation at the time did not necessarily justify the construction of public utilities were also starting to receive them. Nevertheless, they had to move with the times. This approach was spread mainly among the urban middle class, whose mental map saw public utilities as a symbol of literacy and modernisation. They therefore sought to put the newly installed systems at the service of households as soon as possible, although the enthusiasm surrounding their introduction/purchase was not matched by actual use. Nevertheless, the great civilisational achievements of the period - waterworks, plumbing, sewerage, lighting, gas, telephones - became the most important features of the modern city, indispensable for the representation of social progress. At the same time, this tendency has led to a reinforcement of mental boundaries. Towns and districts with modern public utilities represented civilisation and culture, while suburbs, outlying districts and villages without them represented

a dark, unclean, backward world. "I myself felt this state of affairs to be out of date, and it offended my self-esteem to have to live in such a backward place" - complained writer Sándor Márai when he had to study for a whole year under petrol light instead of electric light.

In Hungary, by the end of the period, most of municipalities already had some of the most basic utilities, and some were fully served, although the real beneficiaries of these technical systems were later generations rather than those who lived in the heyday of public utilities, as they made life more difficult at the time. However, inconveniences were common in those days, as the construction, operation and use of public utilities were part of a relatively new technology, and therefore mistakes were often made, mostly due to poor workmanship, hectic operation and incompetence on the part of the public. However, this can be considered as a natural part of the process, as it was the case in all the early stages. As a result, the cities that were at the forefront of this process faced many more problems than those that much later to put in place a more technically advanced and precise system to remedy the earlier failures.

Of the utility networks built, perhaps the most important was the water and sewerage network. Or, as Eric Lampard put it in his study in *Victorian Cities*, "In one way or another, the basic requirement of every city was a water supply. Whether for food, sanitation, fire-fighting or industrial use, water was the original public service and historically the first urban problem." This view was echoed by R. A. Buchanan, who argued that of all public services, plumbing and sewerage played the most fundamental role in the development of modern urban life. And a decade later, Naill Ferguson, in his famous book *Civilisation*, wrote, "To

me, civilisation is as much about sewers as it is about the buttresses of cathedrals, if not more so, for without efficient plumbing, cities become death traps, with rivers and wells serving as breeding grounds for *Vibrio cholerae*." And indeed. Both plumbing and sewerage systems have had a significant impact on the development of cities. On the one hand, they have completely transformed the appearance and environment of towns and cities and, on the other, they have had a major impact on housing, hygiene and public health conditions.

This was also the case in Kolozsvár. While in the first half of the 19th century it was a muddy, stinking, puddle-strewn rural town, by the end of the century it had become a tidy, clean, modern town of the Habsburg Monarchy: "Today's seweraged Kolozsvár has no idea what it was like to have sewage running down the streets, wetting every house from window to window: the tide rushing through the streets when it rained, on which temporary fly-bridges were built; the smell of cesspools that greeted every courtyard on entering." - recalled Károly Békésy. But the road to this point was not smooth. The construction of the water supply and sewage network in Kolozsvár was one of the most problematic issues of the era, generating many conflicts and inconveniences. The negotiations on the matter, the construction process and the operation of the system gave rise to numerous disputes on urban, social, economic and public sanitation policy. It took thousands of newspaper articles, numerous awareness-raising campaigns, two cholera epidemics, a university, a few embarrassing water scandals, regular ministerial interventions, a change of attitude among local elites and, finally, many millions of crowns to get Kolozsvár to operate a modern water supply and sewerage infrastructure network before the turn of

the century. And with it, a more liveable, comfortable, pleasant and healthy living environment for its population.

## **Objective of the research**

In my dissertation, I investigate how the water supply and sewerage network of Kolozsvár, as an indispensable component of the modern city, was built according to socio-economic needs, urban policy decisions and considerations. What were the major factors, events and turning points that influenced the establishment of the two networks? What was the attitude of the urban elite and of the local press to this issue? Why was Kolozsvár the first city in Transylvania to have a waterworks and a water main? How did the water supply and sewerage infrastructure affect the daily lives of the city's inhabitants and what immediate changes did it bring about? By answering these questions, we can gain a more accurate picture of the complex, decades-long process that led to the most significant infrastructure investment of the era, which was an integral part of the birth of modern Kolozsvár and which still shapes the city's image and the daily lives of its inhabitants. The aim of the research is therefore to outline the main lines of a modernisation effort spanning more than a hundred years and to identify the relevant stages in this process, taking into account external and internal factors, and finally to present them in detail.

## **Results**

Through modern historical approaches - technical, infrastructural, social, economic and methodological - we can learn about the socio-economic impacts that led to the construction of public utilities, and the extent to which the newly established networks affected the lives of the city's inhabitants. We can also gain a better understanding of the process that influenced the conditions of urban life in the 19th century. It will also give a clearer picture of how the construction of public utilities changed the daily life of the city's inhabitants, the image of the city and how the infrastructure network transformed Kolozsvár into a modern Central-European city.