Prior to regulation the Danube was a highly dynamic river. Floods occurred regularly as part of the river’s normal behaviour. With every flood the water changed its course, winter ice floods were particularly abrasive. The river froze regularly, and in one notably cold winter, 1876, the Danube was frozen from Tulln to Budapest (380 km) throughout all of February. Ship transport suffered from the frequent changes of the river bed.
Regulation efforts in the Machland, an alluvial floodplain of the Austrian Danube, started as early as 1826. These efforts were triggered by the danger that the meandering river – with its maze of shallow channels, islands and gravel bars – presented to ships. The main channel moved continuously to the south, so this channel was blocked and a diversion dam was built to direct all water to the northern fork. While the plan worked, the increased flow of water threatened to erode the northern bank. In response, an artificial channel was dug right through Weidenhaufen Island in 1832. As planned, the river widened its new channel. This resulted in a straightened shipping route. However, as an unintended consequence, the freshly eroded sediment was deposited right after the outlet of the channel, making navigation in the so-called Holler more difficult than before.

The only solution to the problem was to stabilize the banks over several kilometres with training works. Eventually, after 35 years of planning and building dykes, groynes and training works, the regulation was “complete” – the river was tamed.
The regulation of the Danube cost 220,000 Gulden per kilometre in the nineteenth century. Taming the waters came at a considerable price, about twice as much as building the same length of railway track.
Regulation works in a small area of the Danube

Regulation works in a small area given with dates on a map of the river landscape of 2010.

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