



# River Unstrut from history to present

## shipping versus water management

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Landesbetrieb  
für Hochwasserschutz  
und Wasserwirtschaft  
Sachsen-Anhalt

functions:

- Technical flood protection
- Strengthening of the natural water retention
- Maintenance, development and renaturation of water bodies
- Preservation of navigability

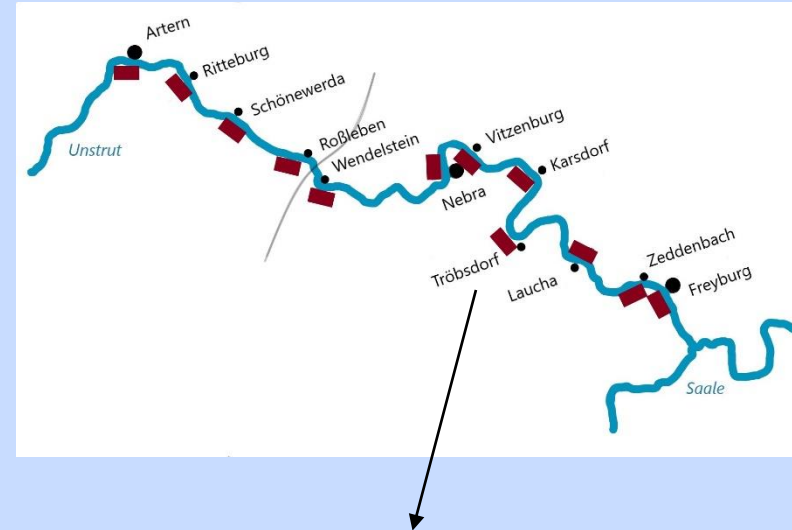
→ Maintenance of 2,906 km of first-order watercourses



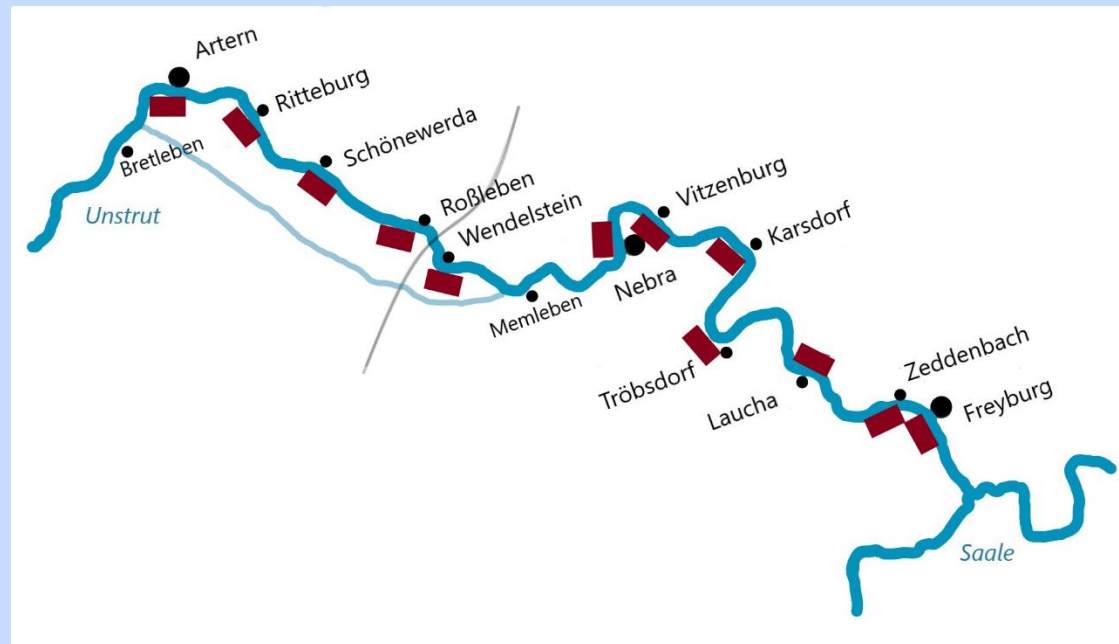
- Total length of 192 km
- Catchment area: 6350 km<sup>2</sup>
- Overcomes a difference in altitude of 380 m
- Unstrut valley: marshy and characterized by regular flooding



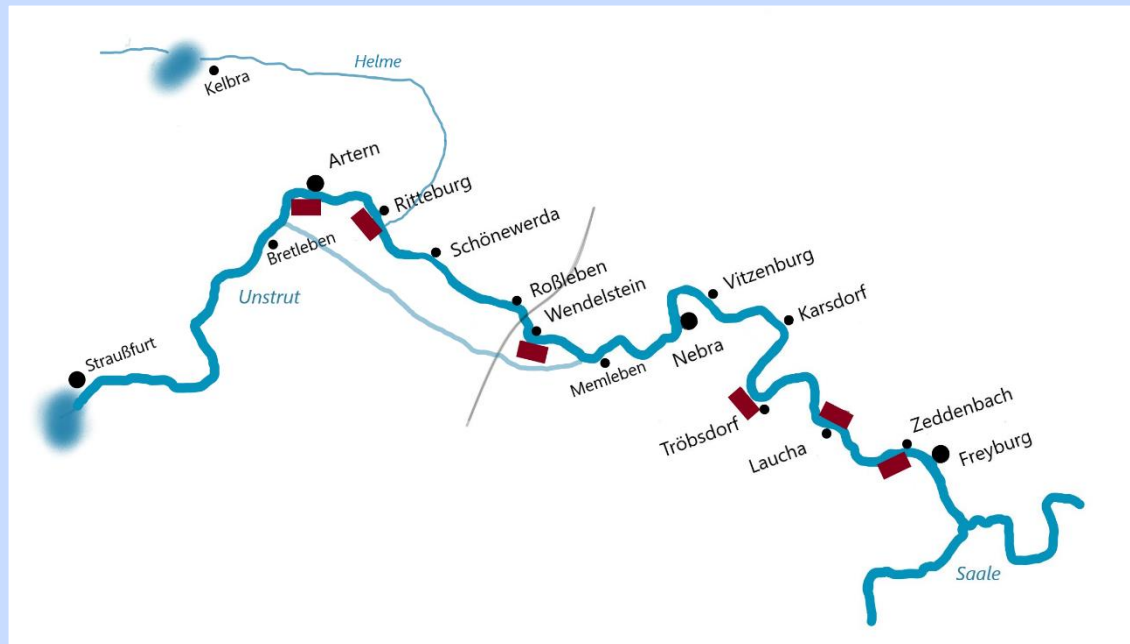
- Navigation documented since 17th century
- Economic use not possible
- 18<sup>th</sup> century: river was expanded:
  - Minimum depths and width
  - 1791-1795 construction of 12 locks
- 1889 parallel railroad connection
  - facilities fell into disrepair
- Since 1967 no longer inland waterway
- Today: local recreation center



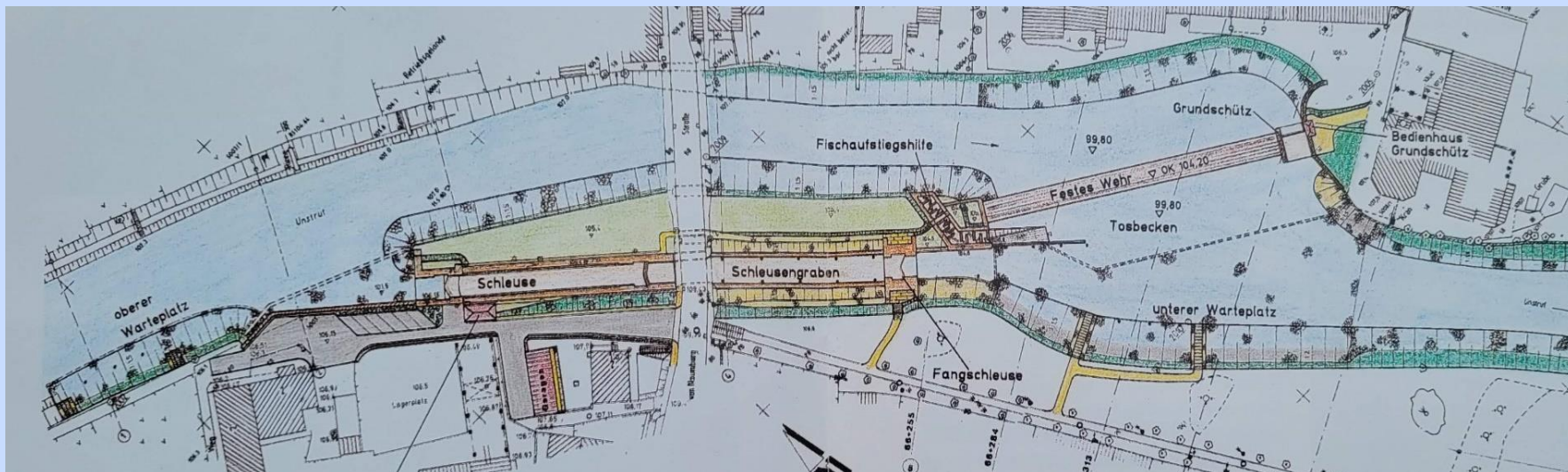
- Unstrut valley:
  - Marshy
  - Threatened by floods
- Large-scale melioration of Unstrut valley in the mid-19th century
  - Deepening
  - course changes
  - Drainage ditches
  - 20 km long flood channel



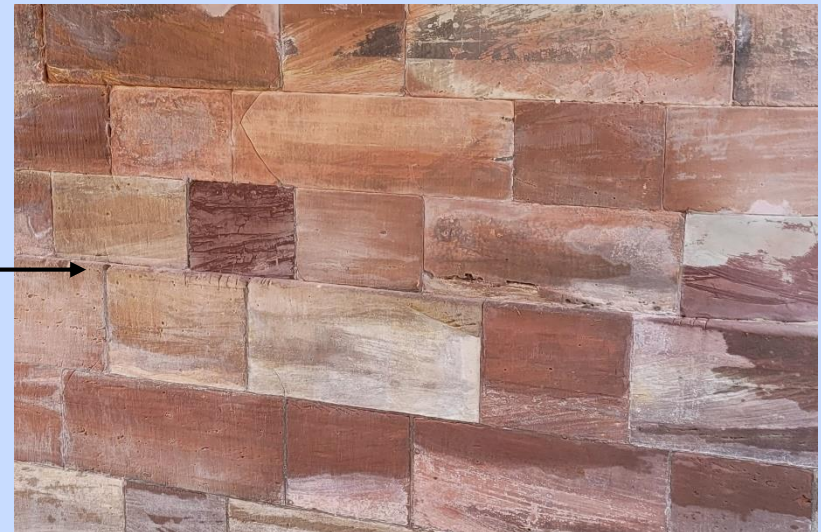
- Drainages partly compensated flood protection systems
- Flood protection program in mid-20th century
  - Demolishing of 5 weirs & locks
  - Straußfurt retention basin
  - Kelbra dam
- Renewal and strengthening of dikes in 1989



- originally built during 1791 to 1795
  - Weir: 103.5 m wide; 4.15 m high; Lock chamber: 50.67 m
  - Weir Broke in 1966
- But: Water supply at Freyburg waterworks declined
- construction of a temporary weir
- Reconstruction of weir and sluice from 1989



- Uncovering old lock chambers
- Replacing damaged stones





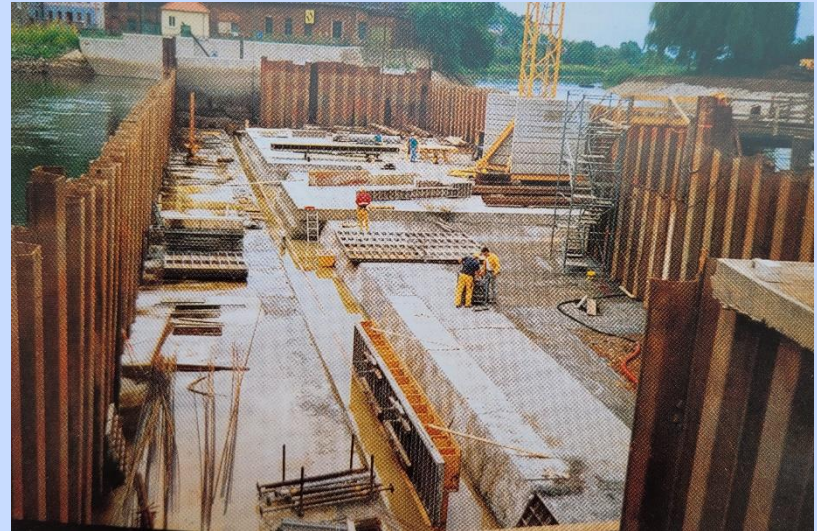
- Lock chamber shortly before completion of construction work



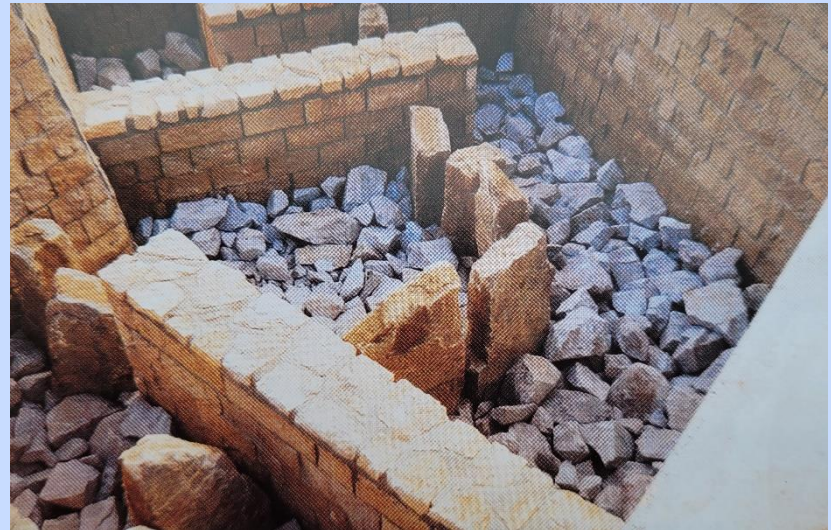
- Sluice today



- Construction pit



- Construction of ascent for fish and benthos



- Today



- Rehabilitation of hydraulic engineering facilities serves to maintain groundwater level
- Flood control & creation of natural floodplains as part of flood control design
- Preservation of near-natural sections with selective protection measures
- Creating ecological continuity



**Thanks for your attention!**

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