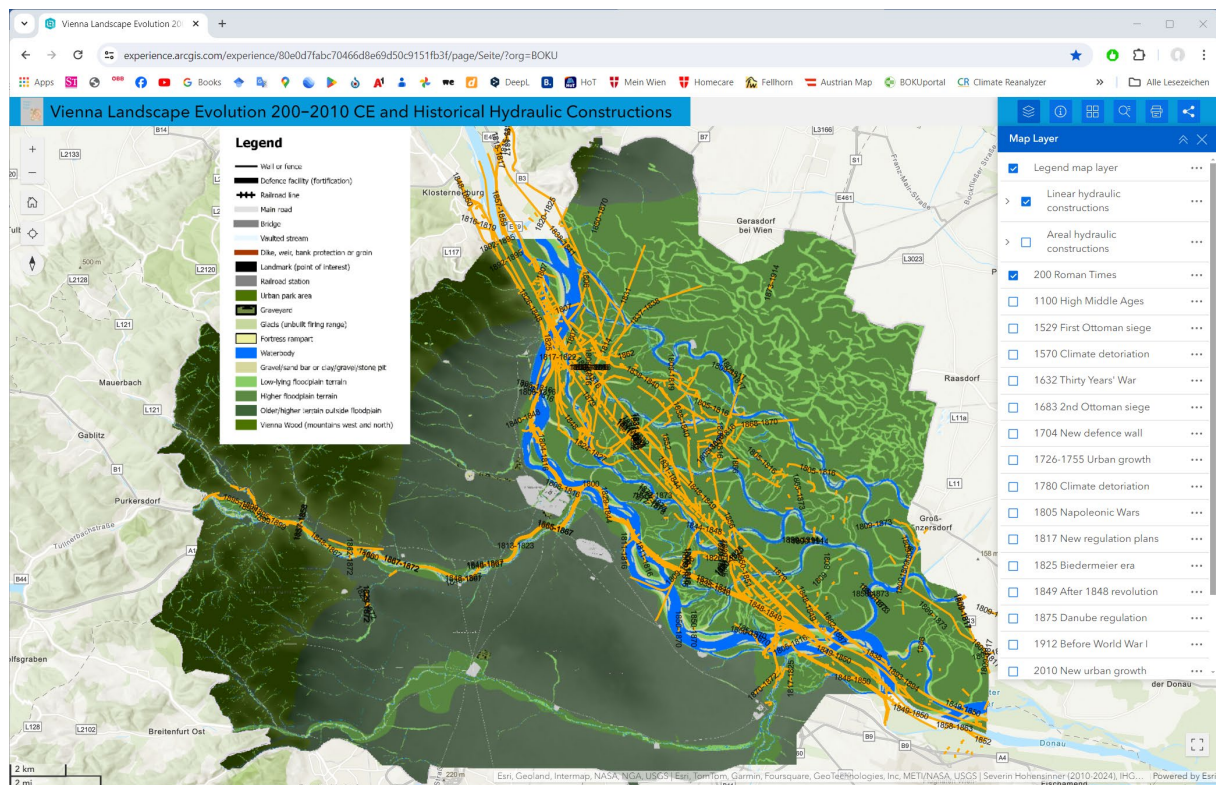


## Vienna's landscape evolution 200–2010 CE and historical hydraulic constructions



Make a selection out of **16 map layers** that display the landscape evolution in Vienna between Roman Times around 200 CE and 2010 CE. A separate **legend layer** informs about the symbols in the map layers. The legend layer can be switched on and off.

Additional layers inform about linear and areal **hydraulic structures/measures** implemented in every century. Click on individual hydraulic structures to find out more details. Note that several structures can lie on top of each other. For related data quality and status of processing see info tool (i).

You can manage **transparency of each layer** in order to compare the historical state with the current situation reflected by the basemap. The transparency function can also be used to compare two different historical states.

### Abstract:

As part of several interdisciplinary projects on the environmental history of Vienna's waterbodies, the past landscape was reconstructed from 200 CE onwards. Different types of data were used for the GIS-based reconstruction: (1) more than 1000 historical maps, plans and views, (2) written sources and historical literature (3) archaeological findings, (4) information on the geological subsurface and pedological data, (5) knowledge about morphological processes typical for the Austrian Danube prior to regulation, (6) the interpretation of past hydraulic measures with respect to their effectiveness and their impact on the river's behaviour, and (7) information on the frequency

and magnitude of historical Danube floods. We compiled the historical states of the landscape step-by-step going backwards in time to the Roman times. After one historical situation had been completed, we evaluated its relevance for the temporally younger situations and whether corrections would have to be made. Such a “regressive-iterative” approach allows for permanent critical revision of the reconstructed time segments already processed. The resulting maps of Vienna’s landscape evolution from 200 to 2010 provide a solid basis for interpreting the environmental conditions for Vienna’s urban development. They also help to localise certain riverine and urban landmarks (such as river arms or bridges) relevant for the history of Vienna. We think that the diversity of approaches and findings of the historical and natural sciences provide key synergies. For further information please refer to our Special Issue in *Water History* ([Winiwarter et al. 2013](#)). If you are interested in the entire history of Vienna's waters, have a look at our book "*Wasser Stadt Wien. Eine Umweltgeschichte*" ([ZUG 2019](#); in German).

#### **Credits/Reference:**

Hohensinner, Severin et al. (2024): Vienna’s landscape evolution 200 – 2010 CE and historical hydraulic constructions. WebGIS Application, <https://arcg.is/Of8LOW1>

Besides own work, the final dataset integrates data from the following master theses: B. Lager (2012), V. Schuller (2015), J. Reichstein (2016), J. Tanzer (2016) and A. Streitberger (2016). Since 2010 all GIS data have been repeatedly updated and supplemented by S. Hohensinner at the Institute of Hydrobiology and Aquatic Ecosystem Management (IHG), BOKU University Vienna. Historical hydraulic constructions have also been researched by S. Hohensinner. Martin Mosser, Heike Krause (City Archaeology Vienna) and Christoph Sonnlechner (City Archive of Vienna) contributed data on the landscape reconstructions.

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