

# CZECH HISTORICAL ATLAS: CREATION OF THE WEB MAP PORTAL

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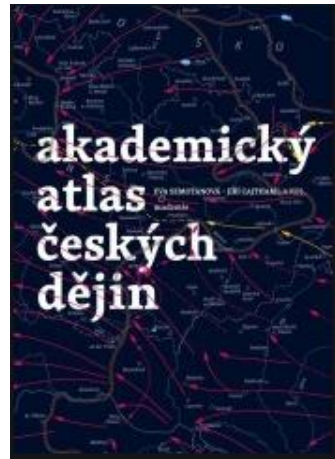


# CONTENT

- Structure of the web portal
- Map functionality
- Map processing
- Publishing maps
- Conclusion

# STRUCTURE OF THE WEB PORTAL I

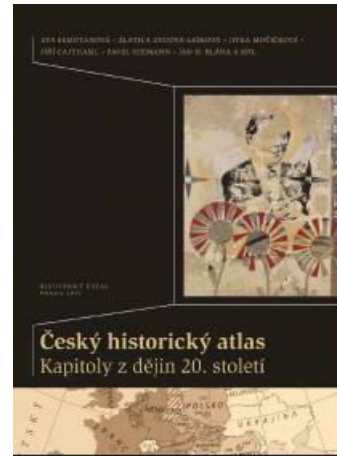
Academic Atlas of Czech History



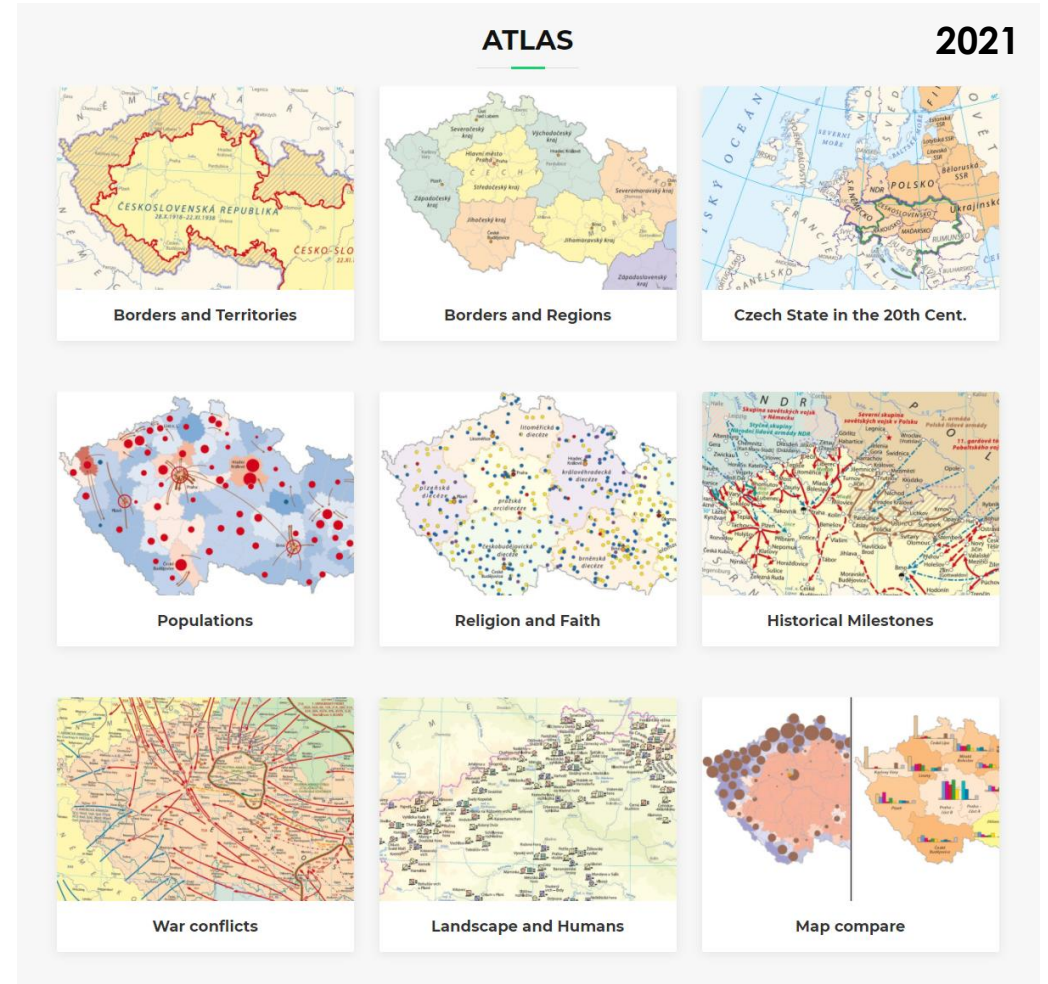
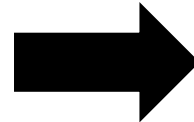
2014



Czech Historical Atlas: Chapters on the 20th Century History



2019

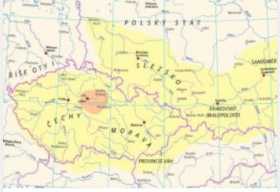


# STRUCTURE OF THE WEB PORTAL II

## BORDERS AND TERRITORIES

In historical cartography and historical geography, the territories and state borders represent one of the fundamental issues. Historical maps and atlases depict borders and their delineations also in relation to the development of regions and regional identities. In the societies, there have always been conflicts between the communities; new borders emerge continuously only to vanish again or change after time. The borders have been accompanying the man since his first steps on the Earth. Historical and present borders cover the entire surface of the Earth in imaginary layers. Whether real or imaginary, they are omnipresent. They can be found in the space, in documents, maps, illustrations, but also in the human minds. They form barriers by which the societies defined (and still define) themselves, based on various ideas, ideologies and special-interest or controlled landscapes. For centuries, the man has modelled the size and face of "his" space. The fight for survival was replaced with a desire to penetrate into unknown landscapes, take them, settle in them and cultivate them by means of utmost exploitation. If the man succeeded, he delimited the acquired territory with real as well as mental borders. From where to where? This was the common question that the people asked in their homes but also in more distant places that they knew well or were just getting to know. From where to where did the land perceived by the mythical Grandfather Čech extend? From here over to there, his descendants used to answer, decided to penetrate into the new territories, own them and use them. The borders have always been an inseparable part of the life of the society. A glimpse into their mingling and overlapping across the centuries opens philosophical reflections on the permanence of human interests, goals and desires, justification of annexing foreign territories, relativity of the words "permanent" and "stable", "definitive" or "forever" mainly as regards ideologies of totalitarianism. Yet it is clear that the borders have always expressed a respected and socially significant civilizational, historical and geographical value connected with the awareness of protection and safety of the delimited territory.

Semotanová, E.: *Historická geografie českých zemí*. Praha 2002, 2006; Semotanová, E. (ed.): *Hranice v krajích*. Praha 2020.



Medieval Times until 12th c.



Medieval Times 13th - 15th c.



Early Modern Period



Modern Period until 1918



Modern Period since 1918



### BORDERS AND TERRITORIES - Modern Period since 1918

CHA
+

Intro
CSR 1918-1924
Border provinces
After Munich Agreement
Protectorate
Post-1945
Content

**Development of border provinces with predominance of German population in Czechoslovakia**

On 21 October 1918, the independent state of German Austria, Deutsch-Österreich was declared in Vienna. In addition to the Austrian lands, it was to include the border areas of Bohemia, Moravia and Silesia. After the establishment of independent Czechoslovakia on 28 October 1918, representatives of the Sudeten Germans declared four separatist provinces. The independent enclaves were to include the towns of Brno, Jihlava and Olomouc. The Czechoslovak government suppressed these separatist attempts with the use of the army.

**References**

Scheuch, M.: *Historischer Atlas Österreich*. Wien 2008, on-line, dostupné z <https://austria-forum.org/Website/HistorischerAtlas000001000017> [zveřejněno 20. 1. 2020].  
 Dějiny a kultura České republiky. *Dějiny státu*. Praha 2018.  
 Semotanová, E. *Zeměpisná geografie ČR – Morávsko*. J. Cajtham, J. Seemann, P. – Bláha, J. D. a kol.: *Český historický atlas. Kapitoly z dějin 20. století*. Praha 2019.

# MAP FUNCTIONALITY

- basic functionality → zoom in/out, highlighting the active layer, pop-up
  - all map applications
- advanced functionality → time slider, switching layers/maps, filtering by selected attribute, map comparison
  - based on thematic content
- ArcGIS API for JavaScript → own templates with predefined functionality

# BORDERS AND TERRITORIES – Medieval Times until 12th c.

- Intro
- Samo's Empire
- Great Moravia
- Bohemia in early 10th c.
- Czech state in 2nd half of 10th c.
- Czech state in 11th and 12th c.
- Compare
- Content

Early Modern Period - Habsburg Monarchy in 16th c.



Early Modern Period - Habsburg Monarchy in 17th and 18th c.

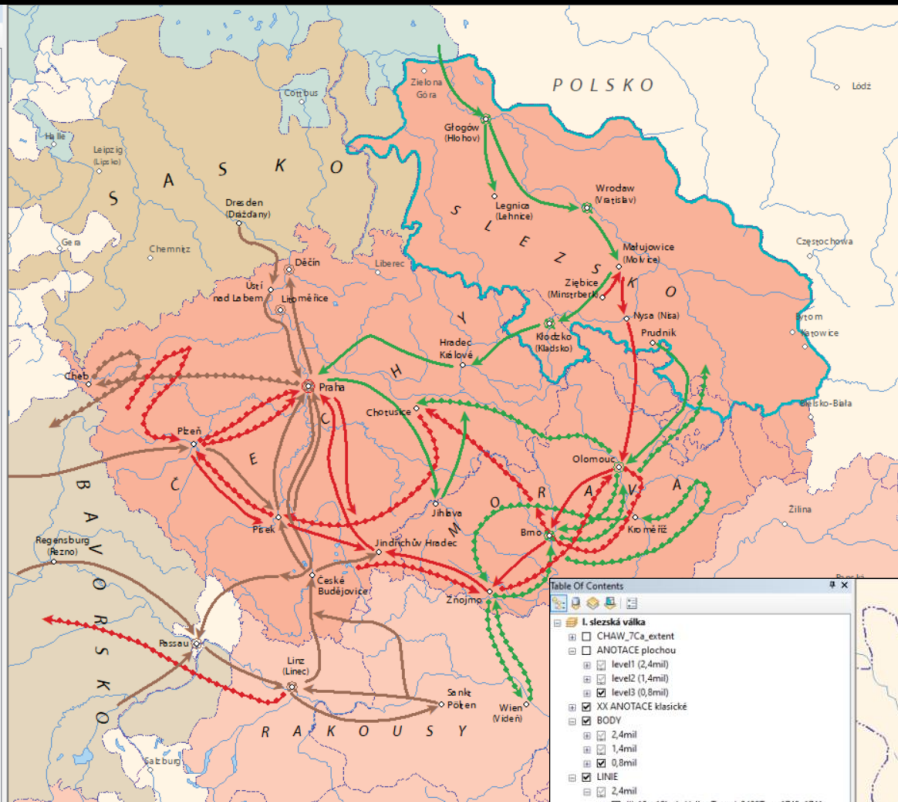


# MAP PROCESSING I

- synthesis of two atlases → unification of sign key, font, and map style
- adjustment of colour schemes for web (CMYK → RGB)
- visualizations for zoom levels (LoD and generalization of the original data)
- adjustment of font and symbol sizes for zoom levels → visual continuity

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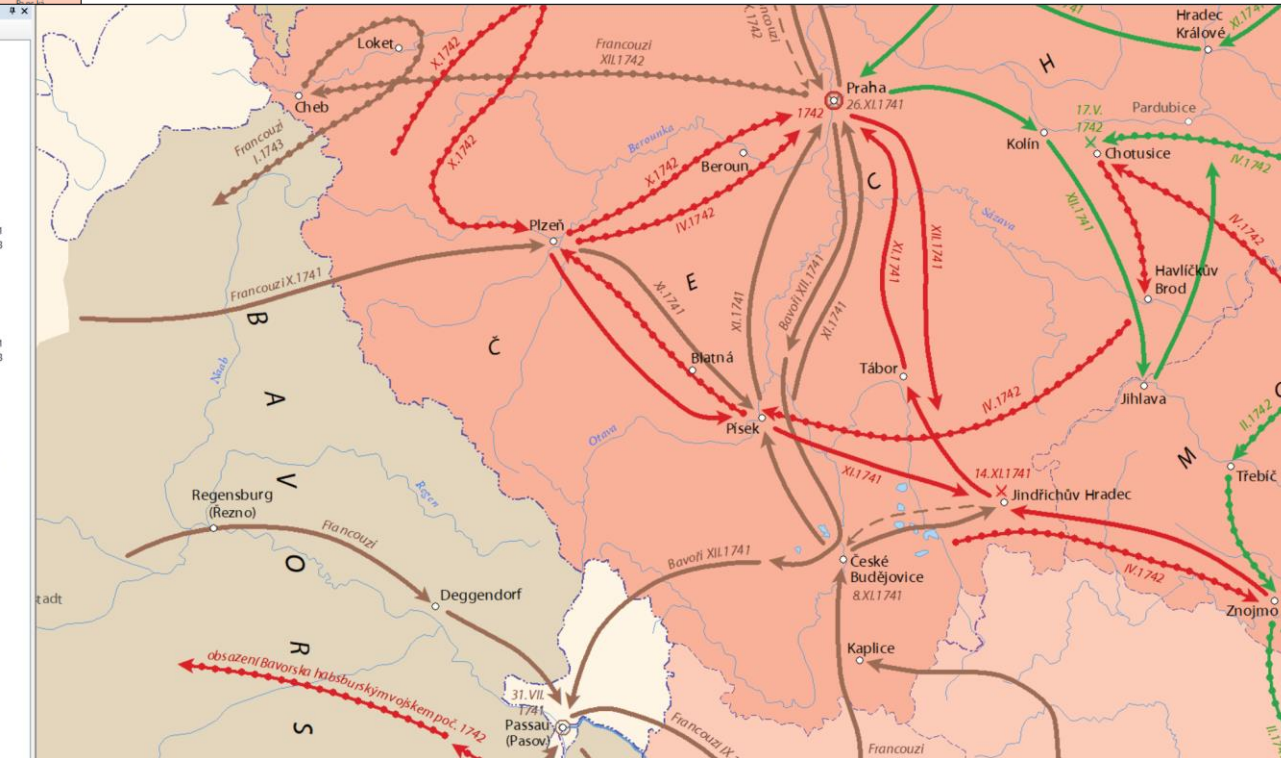
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  - CHAW\_7Ca\_extent
  - ANOTACE plochou
    - level1 (2,4mil)
    - level2 (1,4mil)
    - level3 (0,8mil)
  - XX ANOTACE klasické
  - BODY
    - 2,4mil
    - 1,4mil
    - 0,8mil
  - LINE
    - 2,4mil
      - III\_15a\_1SlezkaValka\_Tazeni\_2400T --> 1740-1741
      - III\_15a\_1SlezkaValka\_Tazeni\_2400T --> 1742-1743
    - HRANICE
      - III\_15a\_1SlezkaValka\_VodniP
      - III\_15a\_1SlezkaValka\_VodniT
      - III\_15a\_1SlezkaValka\_OdstoupUz
    - Ocean\_CSR
  - 1,4mil
    - III\_15a\_1SlezkaValka\_Tazeni\_1400T --> 1740-1741
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- HRANICE
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  - III\_15a\_1SlezkaValka\_VodniT
  - III\_15a\_1SlezkaValka\_OdstoupUz
- Ocean\_CSR

- PLOCHY
- III\_15a\_1SlezkaValka\_CeskeZeme
- III\_15b\_2SlezkaValka\_CeskeZeme
- Staty\_CSR


zoom level 1 (1:2,400,000)

Table Of Contents

- I. slezská válka
  - CHAW\_7Ca\_extent
  - ANOTACE plochou
    - level1 (2,4mil)
    - level2 (1,4mil)
    - level3 (0,8mil)
  - XX ANOTACE klasické
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    - III\_15a\_1SlezkaValka\_Tazeni\_1400T --> 1740-1741
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- 0,8mil
  - III\_15a\_1SlezkaValka\_Tazeni\_800T --> 1740-1741
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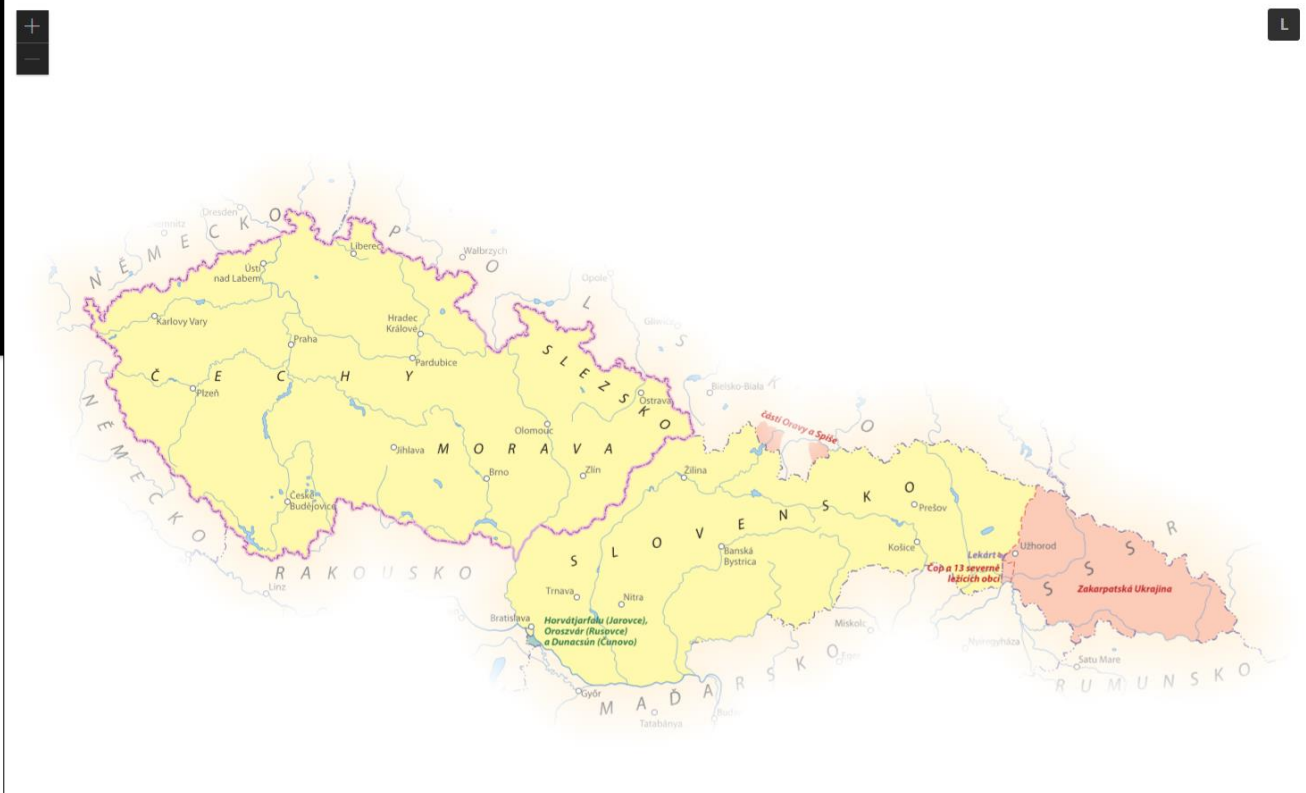
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- III\_15b\_2SlezkaValka\_CeskeZeme
- Staty\_CSR


zoom level 2 (1:800,000)



# MAP PROCESSING I

- synthesis of two atlases → unification of sign key, font, and map style
- adjustment of colour schemes for web (CMYK → RGB)
- visualizations for zoom levels (LoD and generalization of the original data)
- adjustment of font and symbol sizes for zoom levels → visual continuity
- map comparison → unification of the map scale series and map projections
- more than 160 maps → complex methodology



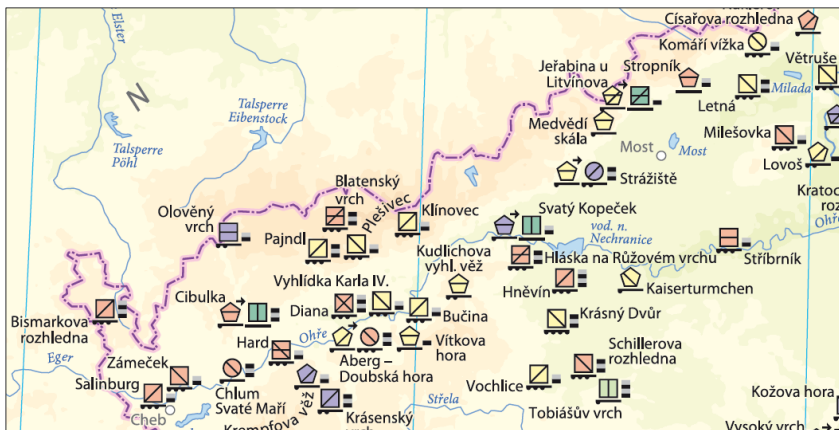
Czechoslovakia (zoom level 1)



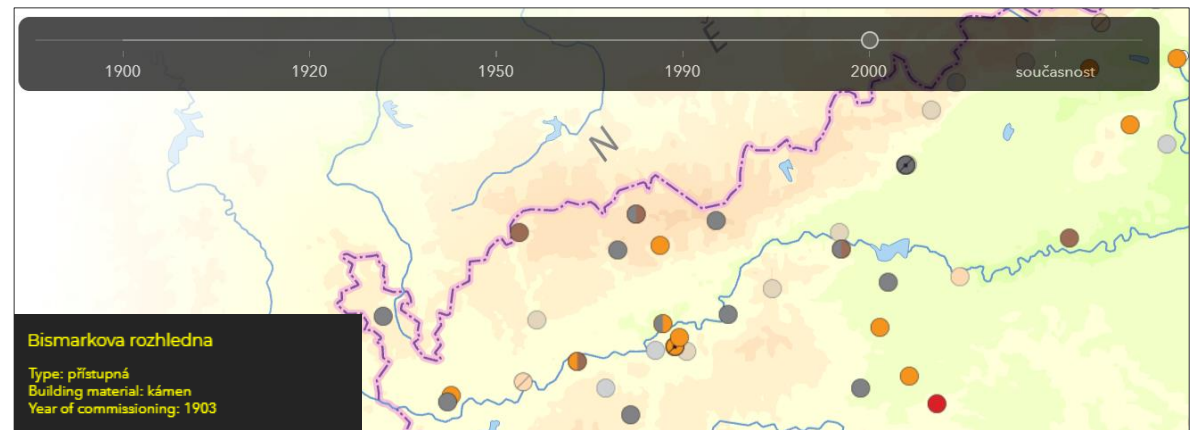
Czechia (zoom level 1)

# MAP PROCESSING II

- adjustment/creation of the attribute data for the pop-up
- visualization for advanced functionality → sections of time slider  
→ active/inactive features (filtering, time slider)
- change of complex map symbology → replaced by map functionality (pop-up, timeslider)



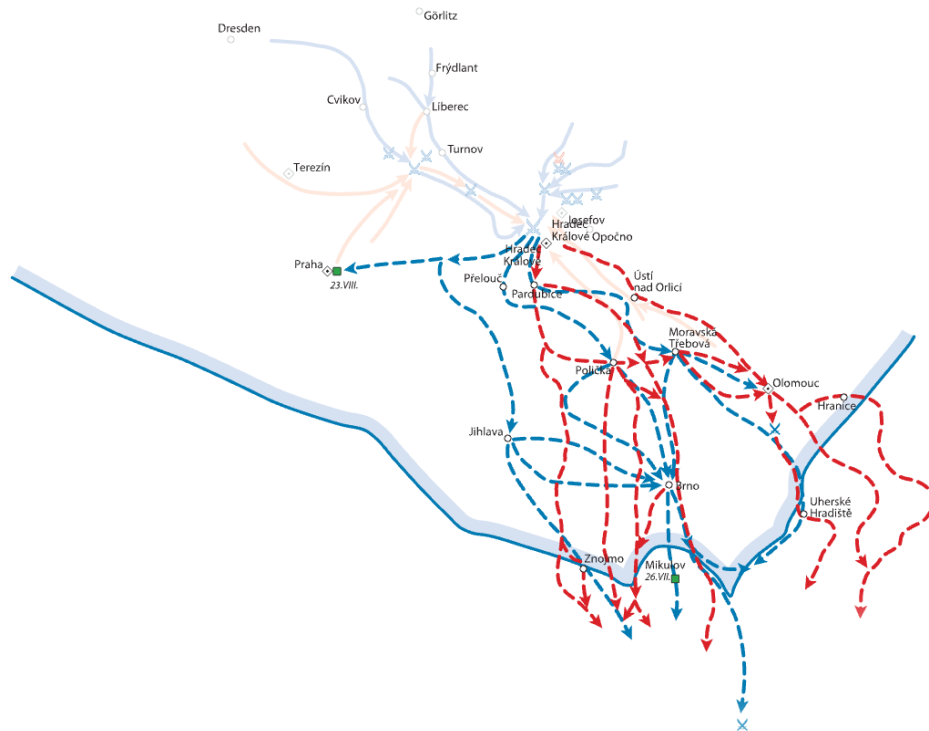
printed map



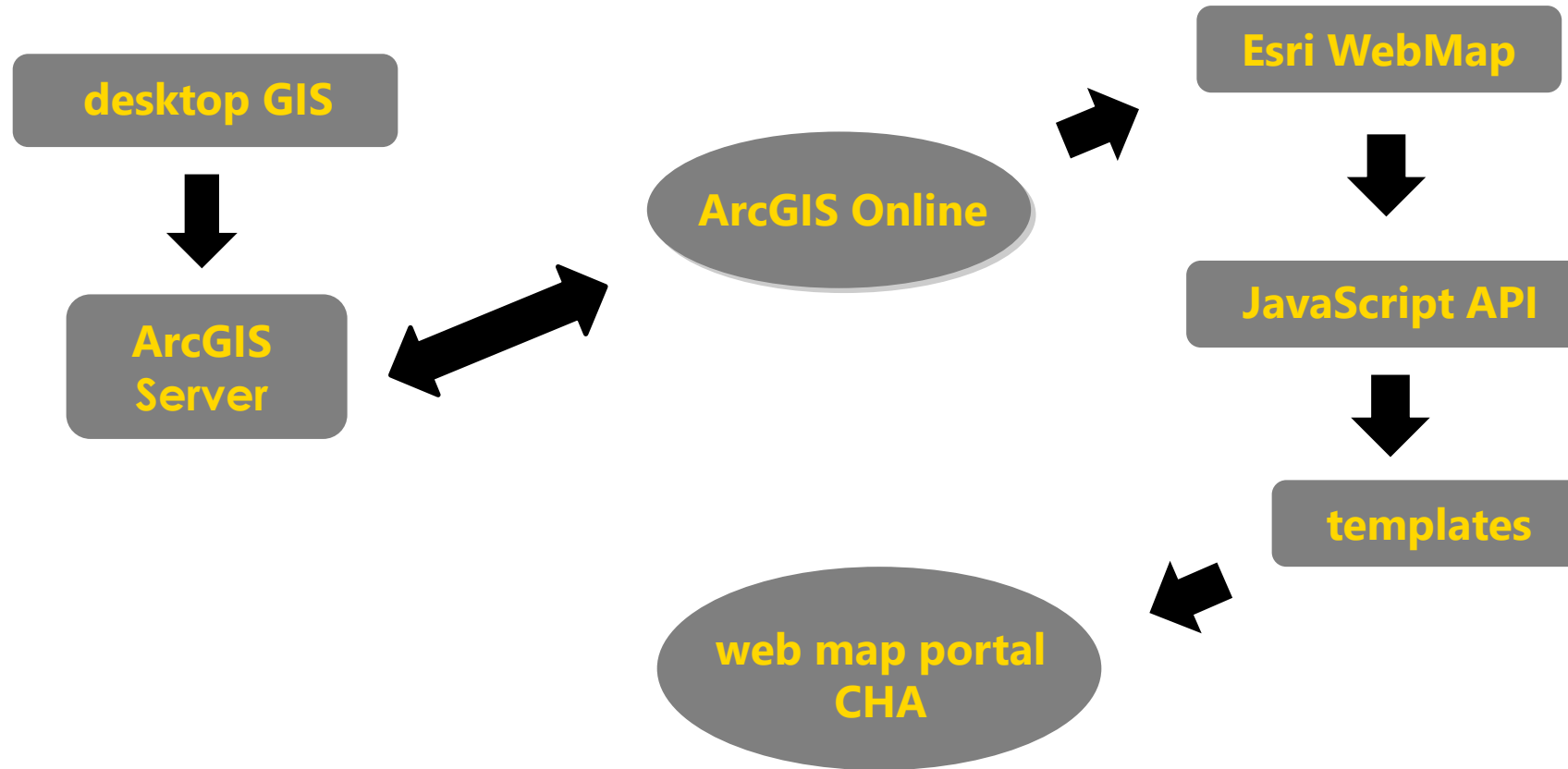
web map application

# PUBLISHING MAPS I

○ thematic (active) vs. background (inactive) layers → unique layer ID for use in API



# PUBLISHING MAPS II

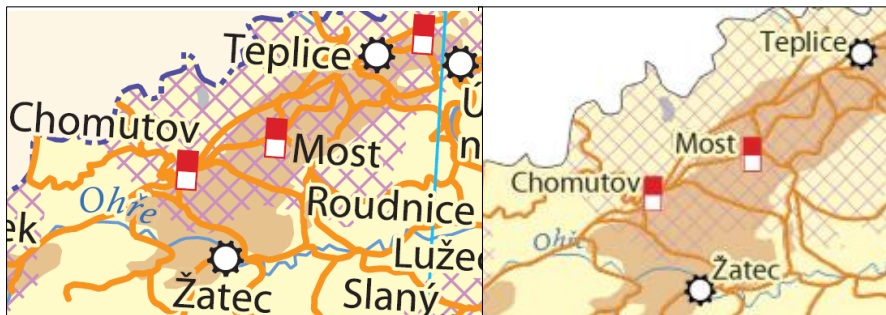


# PUBLISHING MAPS III

○ limitations of used web technology → compromise solutions

→ map functionality vs. map graphics

→ additional map editing



masking vs. text halo



annotation layer vs. Feature Outline Mask

# CONCLUSION

- digitized printed atlas vs. interactive web maps → increased complexity of the project
- printed vs. web atlas → limitations/advances (web technology, map functionality, ...)
  - unfinished process
  - conversion vs. from scratch
- further development → power optimization
  - mobile devices, tablets, ...

**THANK YOU FOR YOUR ATTENTION!**

**[www.czechhistoricalatlas.cz](http://www.czechhistoricalatlas.cz)**