Eva Chodějovská,[1] Jiří Krejčí[2] in collaboration with Eva Semotanová, Václava Horčáková et al.

[1] Institute of History, Academy of Sciences of the Czech Republic and [2] Czech Technical University in Prague
chodejovska@hiu.cas.cz, historickyatlas@gmail.com

LOGO VCHG

HISTORICKÝ ÚSTAV AV ČR, v. v. i.
INSTITUTE OF HISTORY AS CR, v. v. i.

The GIS Web Map Portal
of the Historical Town´s Atlas of the Czech Republic
an access to the historical cartographic and iconographic heritage of Prague

Although Prague is one of the most significant European metropolises and its history is extensively documented in all types of historical sources including the iconographic ones, it still lacks systematically compiled overviews of plans, maps and town views. Since 1992, when the Czech team joined the international project 'Historical Town Atlases', the urban development of particular towns and cities in the Czech Republic has been studied, stressing the importance of cartographic and iconographic sources. In the case of such a large city characteristic of complex urban development and a huge amount of preserved historical sources, it was impossible to depart from the structure of the Historical Town's Atlas of the Czech Republic, and the web map portal of the Historical Town's Atlas of the Czech Republic was thus established in 2010. Employing the GIS system seems especially appropriate for compiling an atlas of a metropolitan area.

The web map portal includes:
- texts (bibliography of Prague urban history)
- modern maps, including cadastral and orthophoto maps, which are appended from various map portals by the means of WMS
- georeferenced old maps and plans
- digital 3D models of Prague landscape
- photos and town views organised as a virtual topographical handbook

The application offers basic tools like zooming in and out, readout of coordinates, fast conversion to particular coordinates (Go To), etc. Georeferenced old maps and modern layers can be layered over and the transparency level of each one can be adjusted on a scroll bar. This allows for watching the housing development and studying land use. Moreover, maps of growth show the development of built-up areas during specific periods which can be seen either one by one or in the form of animation. Localized photos and views represented by an active symbol in a map layer are easily accessible and they all well supplement the situation depicted on maps.
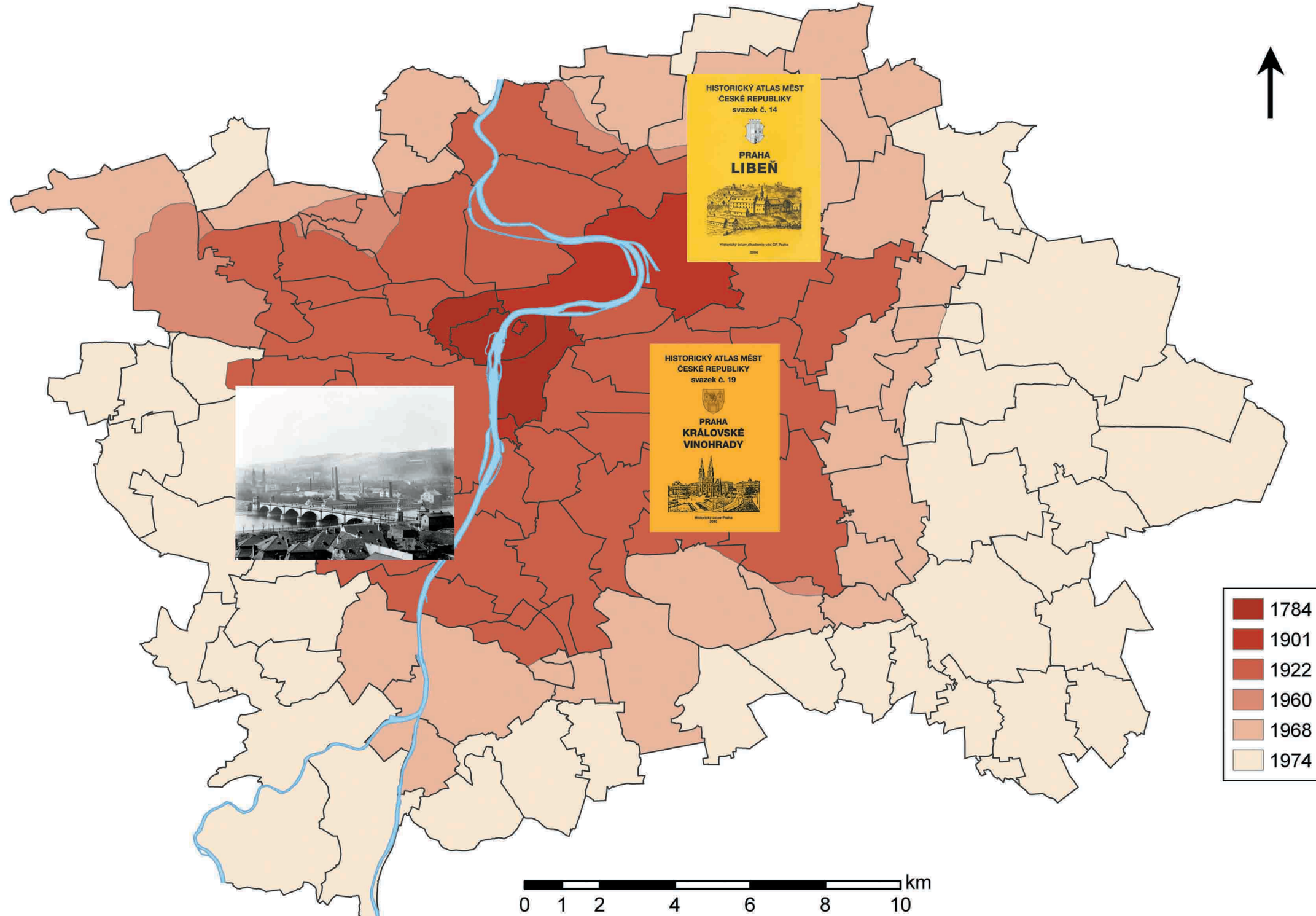
The background of the map environment contains a database of old maps and plans of Prague. More than 20 parameters were used to describe the listed maps and plans, and can be divided into the following groups:
1. basic information (title, date and place of origin, author/s, depicted area, type of map)
2. information on keeping a particular document (institution, collection, shelf, inventory number etc.)
3. analysis of the map content (map features: coordinate grid if any, map scale [scale bar and natural scale], map orientation, planimetry, altimetry, map lettering, decoration)
4. physical state (material, size) and condition of the preserved document
5. related archive documents – manuscripts and printed documents, professional literature, editions etc.

The description also includes a small-dimensional image. The maps which can be georeferenced can be viewed as single layers in the web GIS environment.

Prague – town development from 1784, when the four historical towns of Prague were united, to 1974, when the last significant expansion of Prague occurred.
With the aim to maintain the structure of the Historical Town's Atlas of the Czech Republic and the interdisciplinary approach, the area of Prague, covering almost 400 km², was processed according to individual districts. The first ones were the areas located immediately behind the city wall which enclosed the four historical Prague towns. These areas originally represented autonomous settlements that developed independently until the second half of the 19th century. The atlas of the Libeň neighbourhood was completed in 2006, while the volume dedicated to the neighbourhood of Královské Vinohrady was published in 2010 and the atlas of Smíchov will be published during 2012.

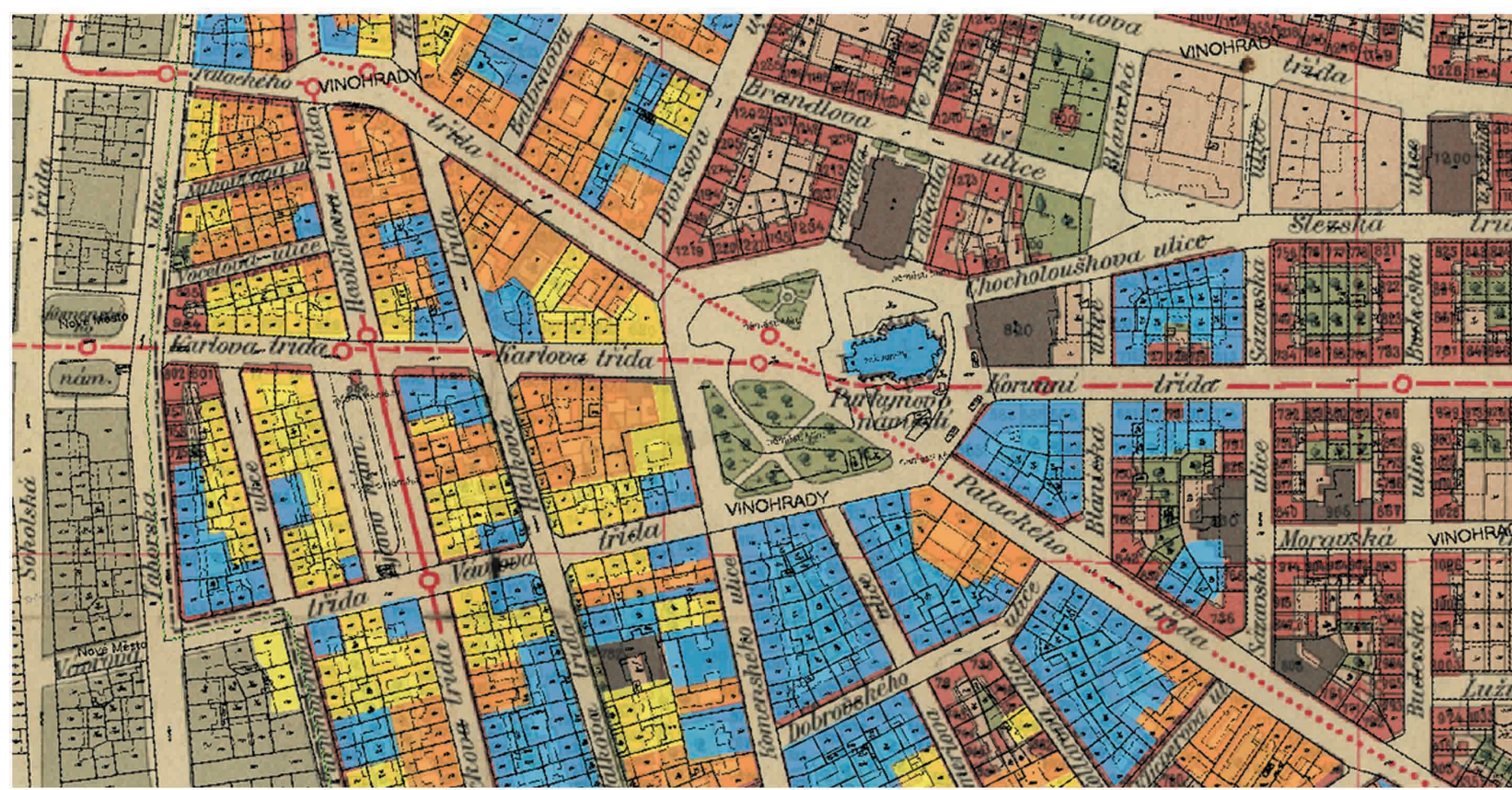|	
■	1784
■	1901
■	1922
■	1960
■	1968
■	1974

km
0 1 2   4   6   8   10

Prague from the Topographia
Bohemiae, Moraviae et Silesiae by Martin Zeiller,
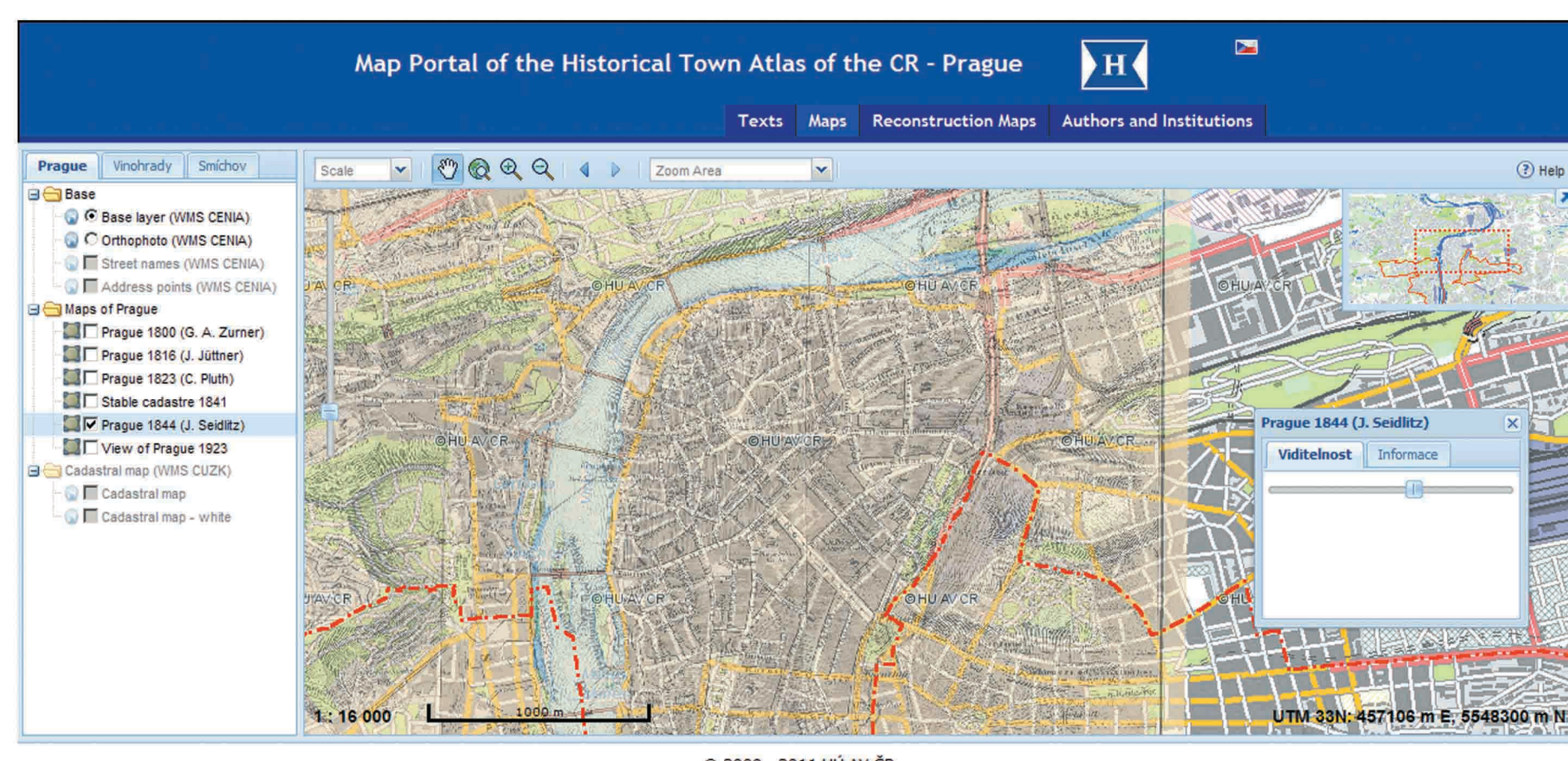published by Matthäus Merin in 1650. Prague City Archives

Opening page
to the reconstructional maps.

A detailed view of the map
of Královské Vinohrady
from 1905 by Theofil Herold overlayed
by a semitransparent layer
of the reconstruction map
(development of the built-up area
in 1875, 1876 and 1881) and modern
cadastral map connected via WMS.

Old map of Prague by C. W. Medau,
published 1844 in the guide book by Joseph Seidlitz (transparency 70 %), including brief
information about the map and the possibility to enter the database below on the right side
of the menu in the centre of the screen.
The Institute of History, the Academy of Sciences of the Czech Republic, Prague

Old map of Prague by Josef Jüttner (1816).
Users can open the database either from the homepage of the portal (upper right corner)
or by clicking on the name of the layer (= the map title's summary) by left mouse button.
Besides the structured description of an old map, the database provides access to the National Library
catalogue with abbreviated quotations of published books and scientific papers related
to the old map in the fields "Literature" and "Edition".
The Institute of History, the Academy of Sciences of the Czech Republic, Prague

These two photos allow for comparing the centre of Smíchov in various periods:
the crossroad "Anděl" during the 1920s and in 2010, with the new building "Golden Angel" by architect Jean Nouvel.
Private collection and Dana Vondrášková