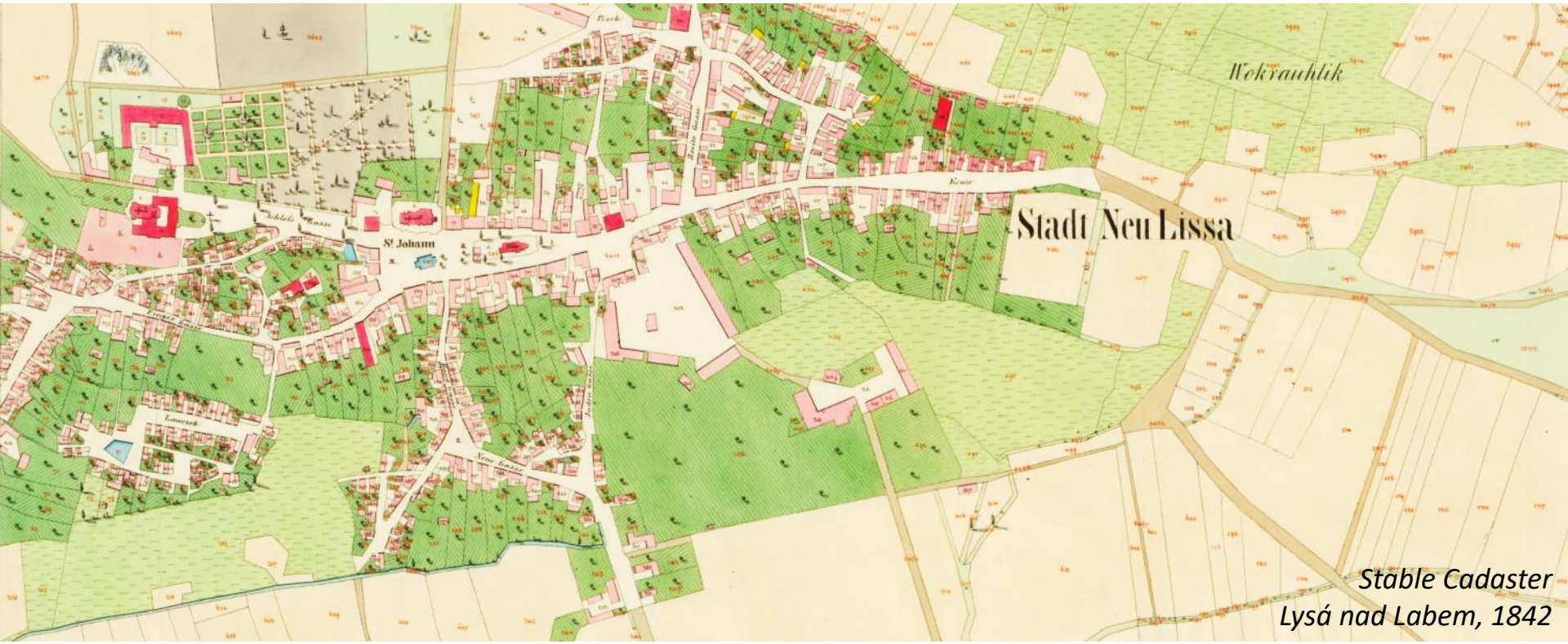
Urbanism – introduction to history



Stable Cadaster
Lysá nad Labem, 1842

Václav Fanta, fantav@fzp.czu.cz

Czech University of Life Sciences Prague
Faculty of Environmental Sciences

What does “urbanism” mean?

1. Urbanism

- Study of town
  - Scientific discipline
  - „Interaction of inhabitants of towns and cities (urban areas) with the built environment.“ – *Wikipedia*

- Town building
  - Design of town
  - „Creation / intentional formation of urban environment in relation of mass and space“

- Connected with geography, planning, architecture, sociology, ecology, environmental sciences…

- How should we plan/shape/create our cities?
- How should we prepare our cities for future?
- Town as playground for human activities

Connecting people?

after Kohout 2011

Connecting people!

Czech University of Life Sciences Prague
Faculty of Environmental Sciences

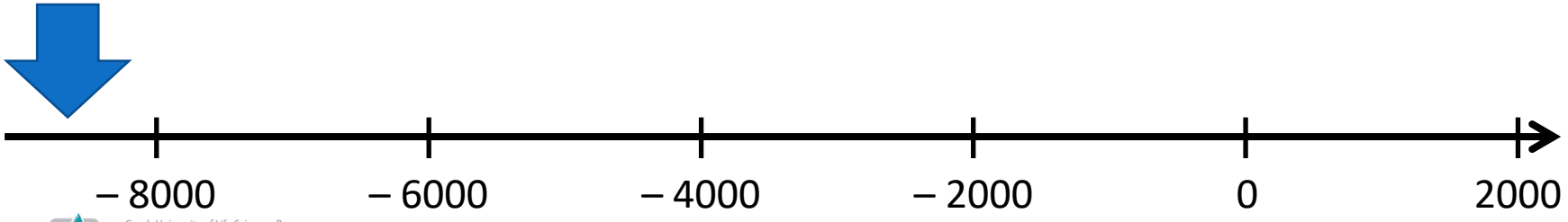
after Kohout 2011

2. History of towns

Jan Willenberg, Hněvín, 1602

Humans and environment

paintings by Zdeněk Burian



Czech University of Life Sciences Prague
Faculty of Environmental Sciences

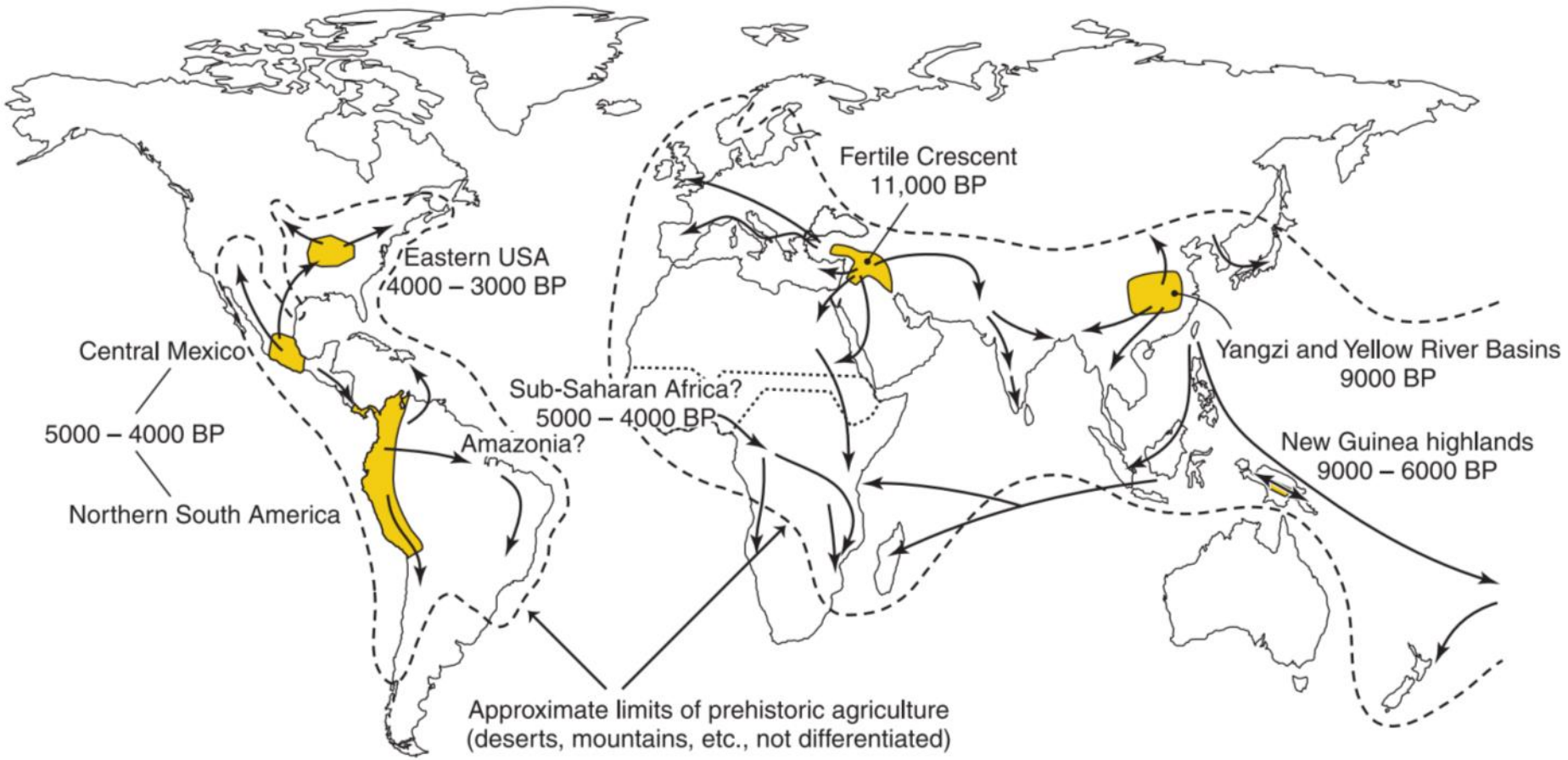
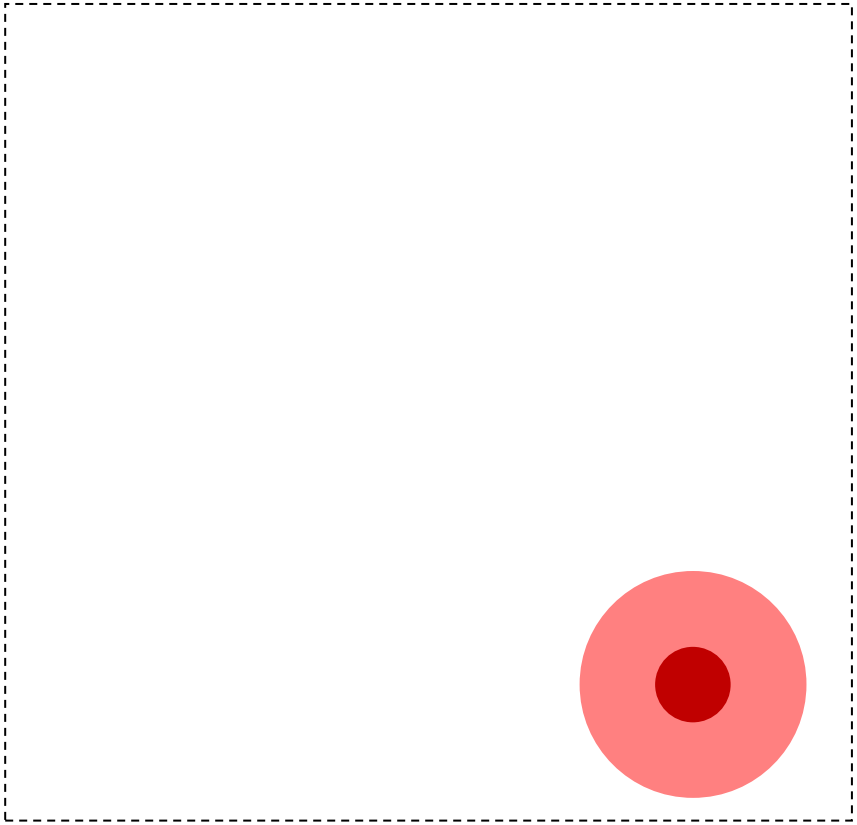


Fig. 1. Archaeological map of agricultural homelands and spreads of Neolithic/Formative cultures, with approximate radiocarbon dates.

Diamond & Bellwood 2003

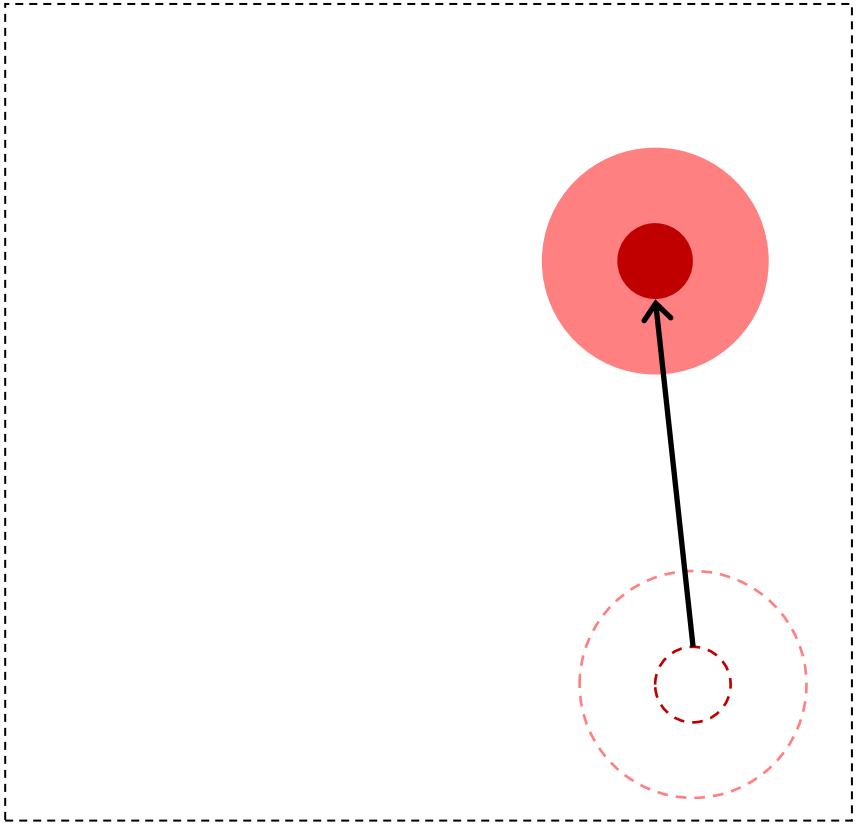
Hunters and gathers



settlement

hunting area

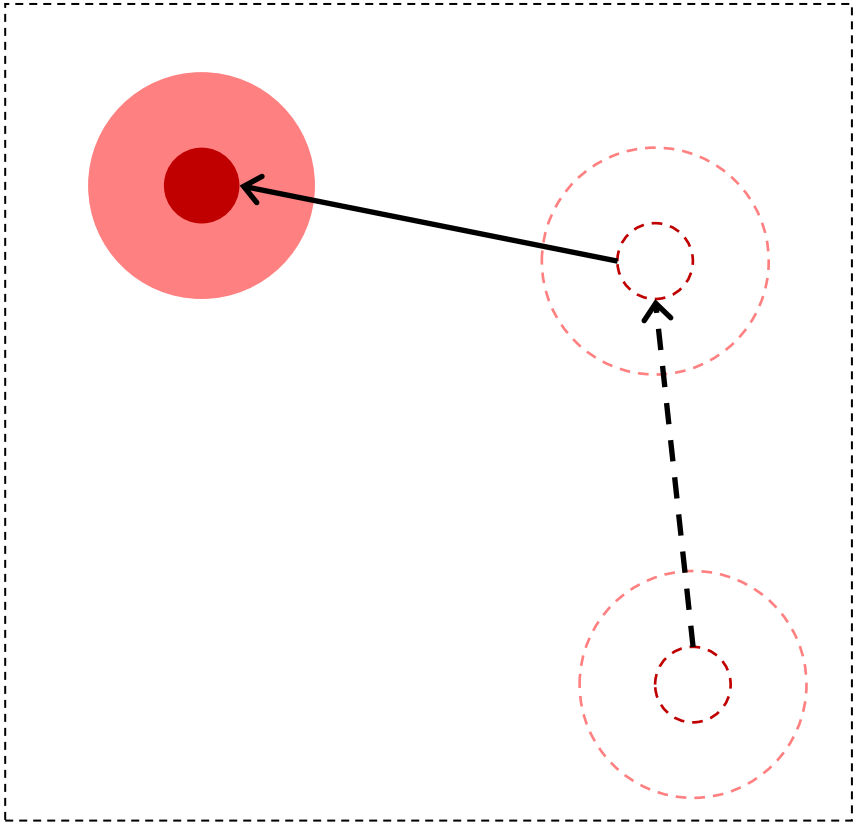
Hunters and gathers



settlement

hunting area

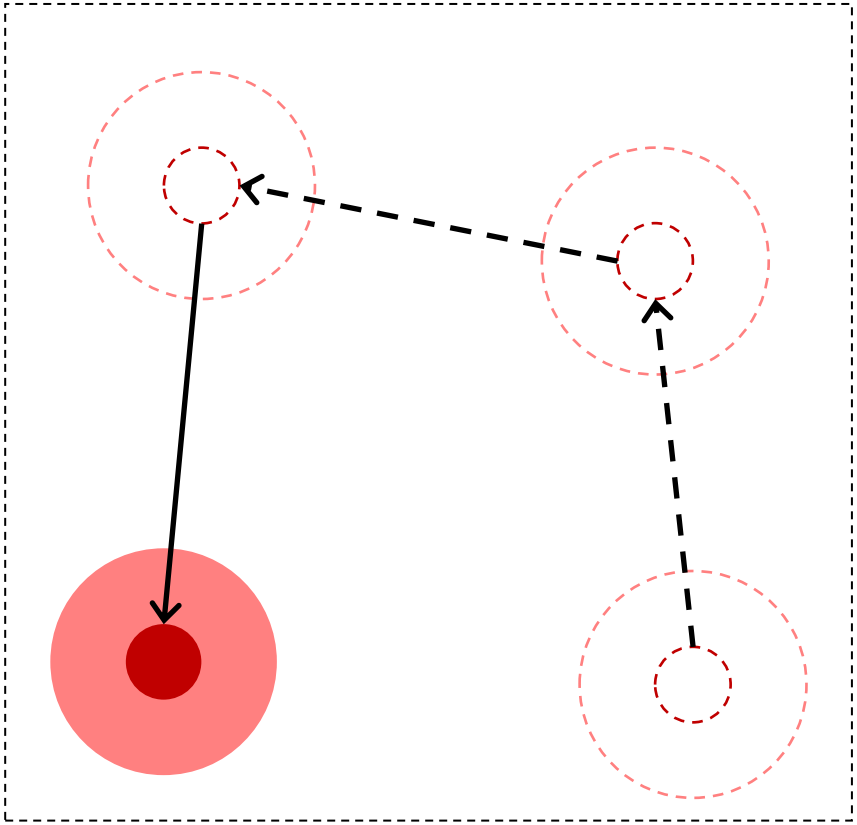
Hunters and gathers



settlement

hunting area

Hunters and gathers

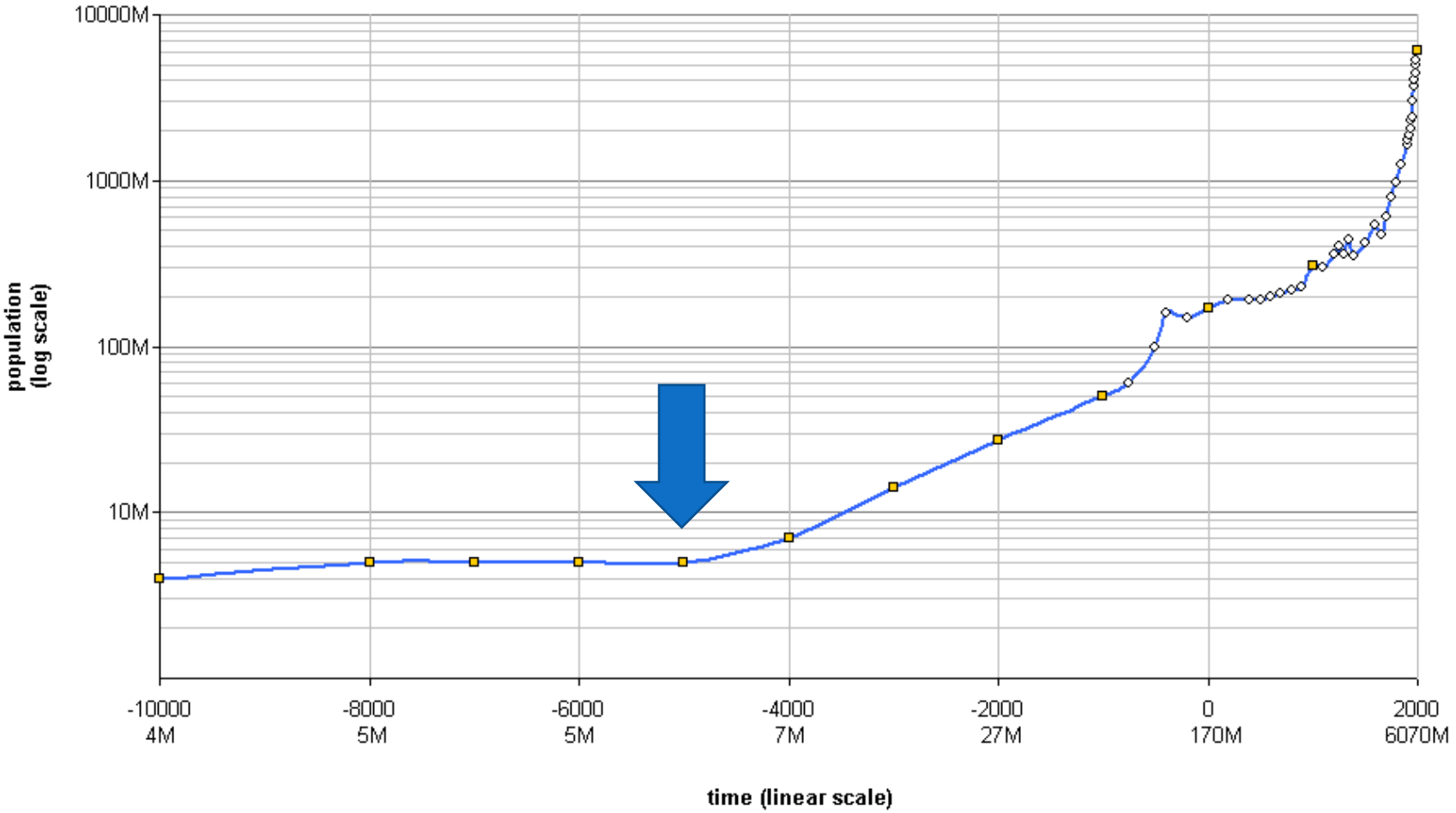


Farmers

settlement

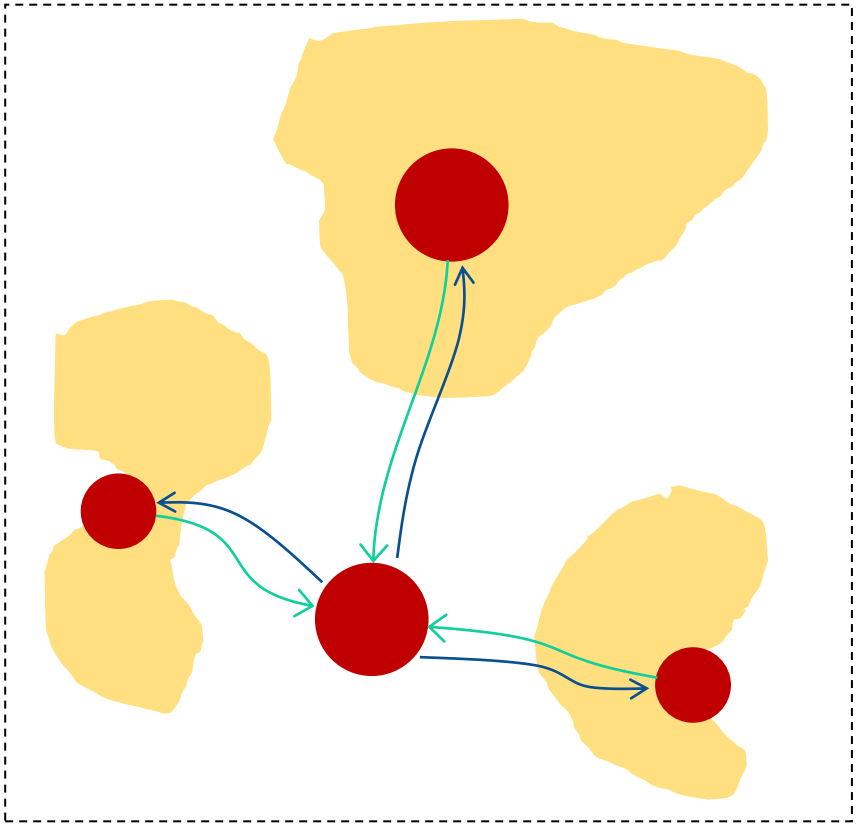
hunting area

farming area



https://commons.wikimedia.org/wiki/File%3AWorld_population_growth_(lin-log_scale).png

Towns



settlement

farming area

food

services

Jericho, West Bank, 9500 BC

Çatalhöyük, Turkey, 7500 BC

Czech University of Life Sciences Prague
Faculty of Environmental Sciences

What are the characteristics of town?

Town characteristics

1. **Size and density** of the population should be above normal.
2. **Differentiation** of the population. **Not all residents grow their own food**, leading to specialists.
3. Payment of taxes to a deity or king.
4. Monumental **public buildings**.
5. Those not producing their own food are supported by the king.
6. Systems of recording and practical science.
7. A system of writing.
8. Development of symbolic art.
9. **Trade** and import of raw materials.
10. **Specialist craftsmen** from outside the kin-group.

Childe, V. Gordon. "The Urban Revolution." *The Town Planning Review*, vol. 21, no. 1, 1950, pp. 3–17.

„A place where people live and work, containing **many houses, shops, places of work, places of entertainment**, etc., and usually **larger than a village** but smaller than a city."

Cambridge Dictionary, http://dictionary.cambridge.org/dictionary/english/town

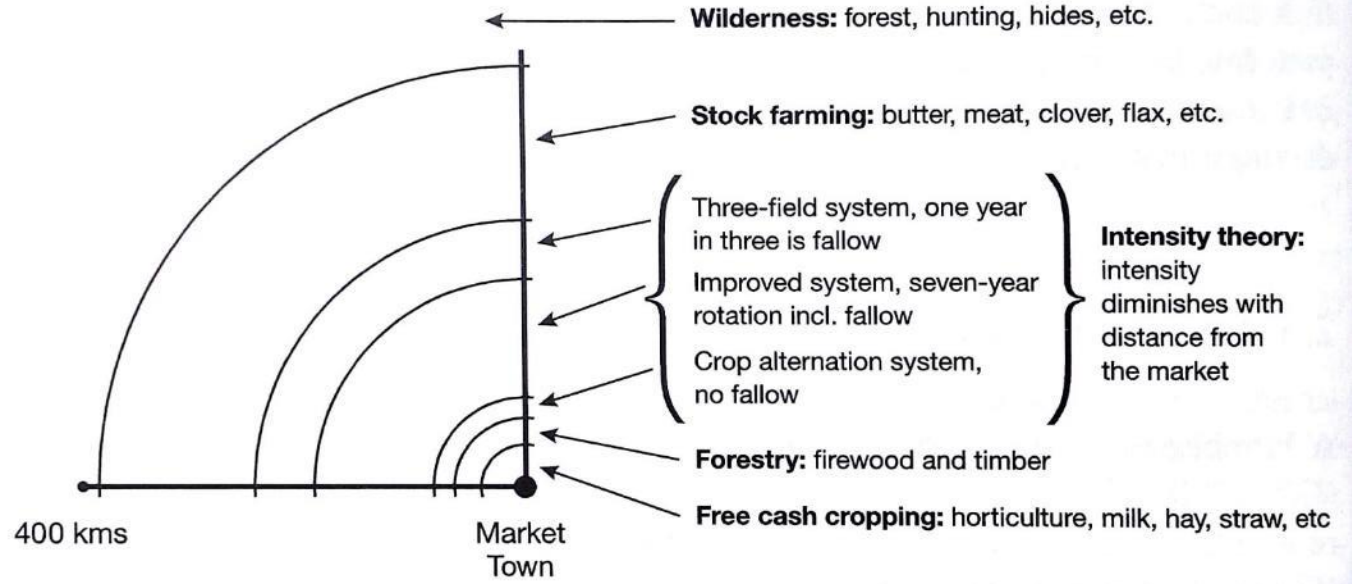
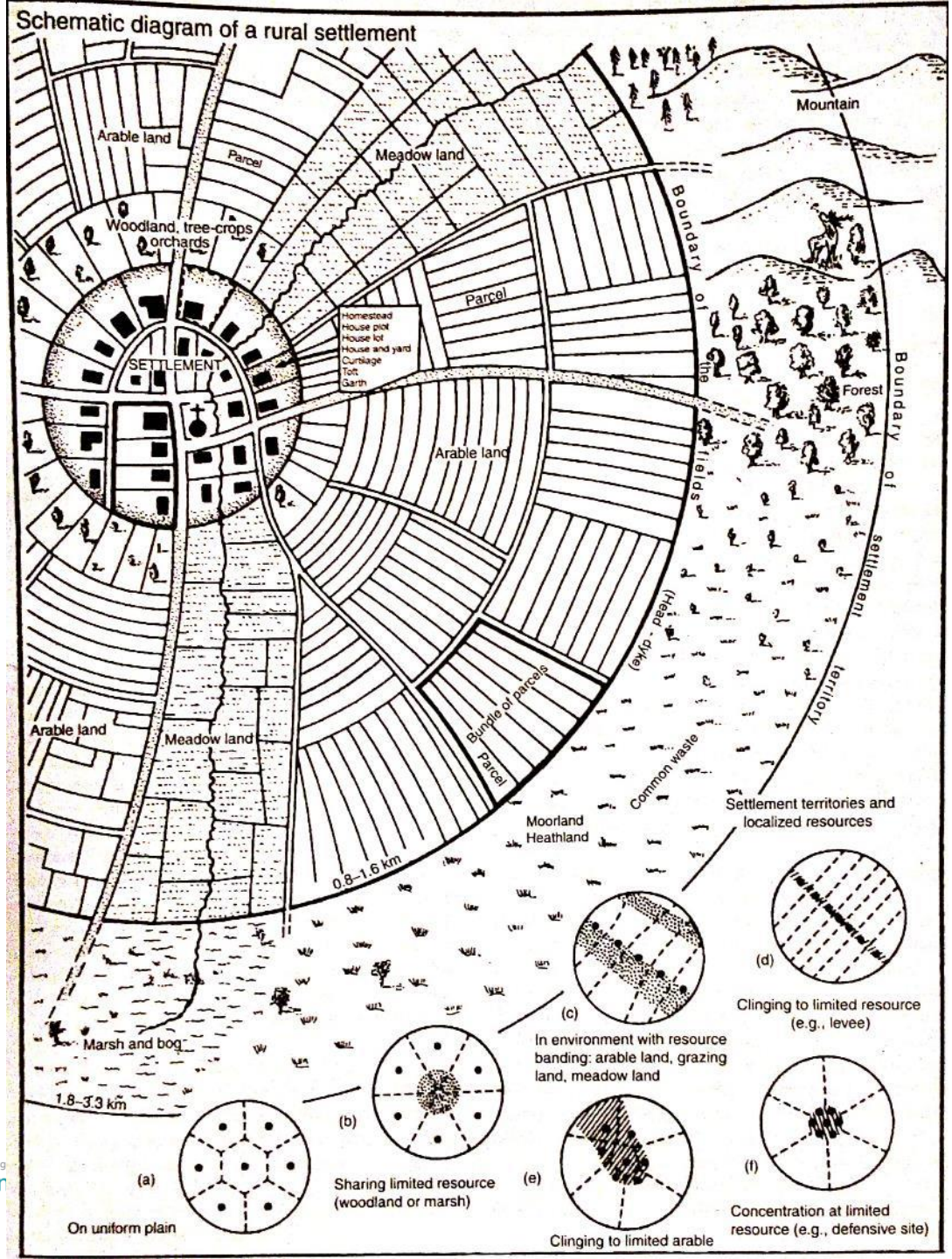


Fig. 2.1 Von Thünen's theory of crop zones—concentric rings of different land use. *Source* adapted according to Grigg (1995, p. 116)

Bičík et al. 2015

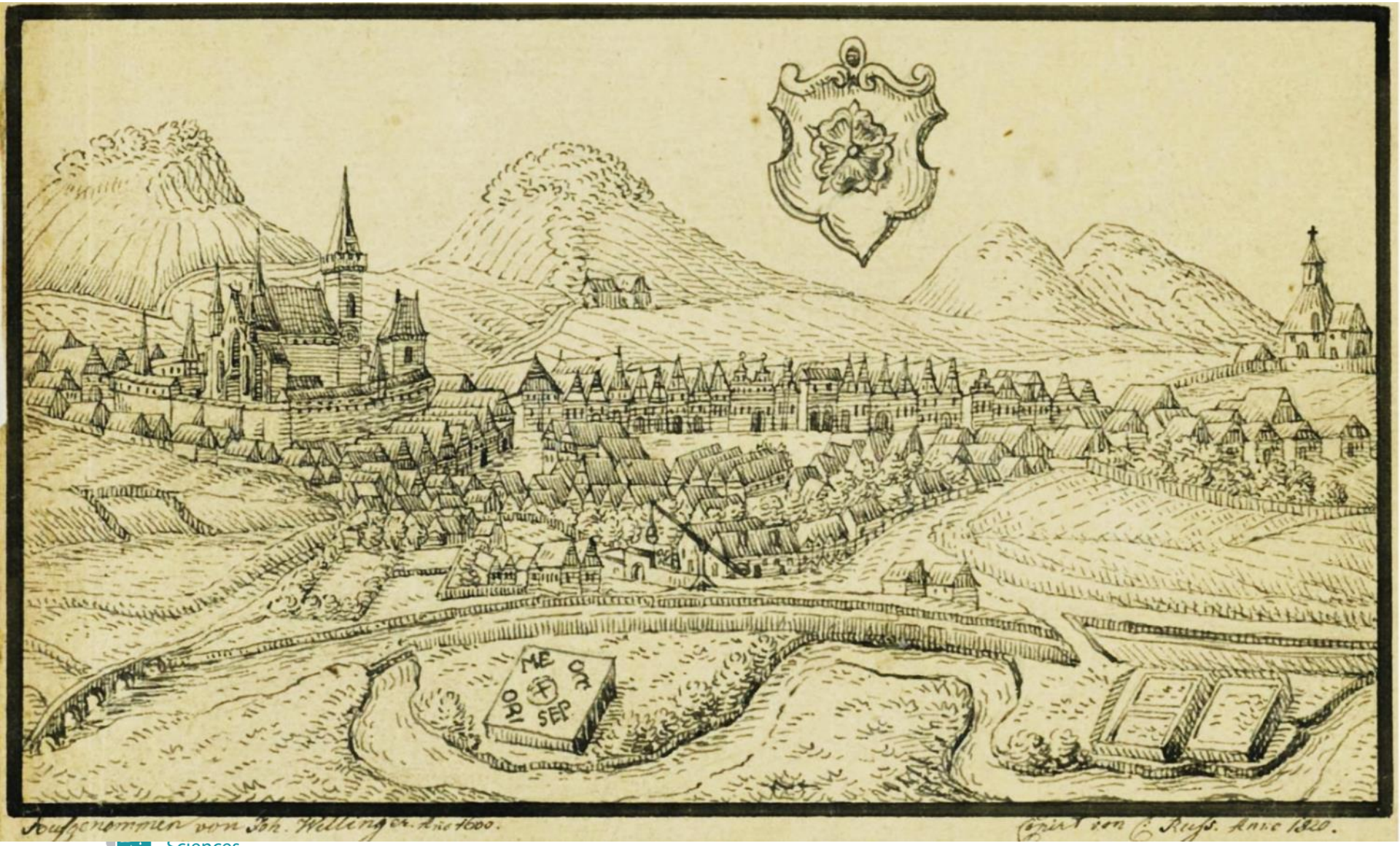


Czech University of Life Sciences Prag
Faculty of Environ
Sciences

Roberts 1996,
Kitchin & Thrift 2009

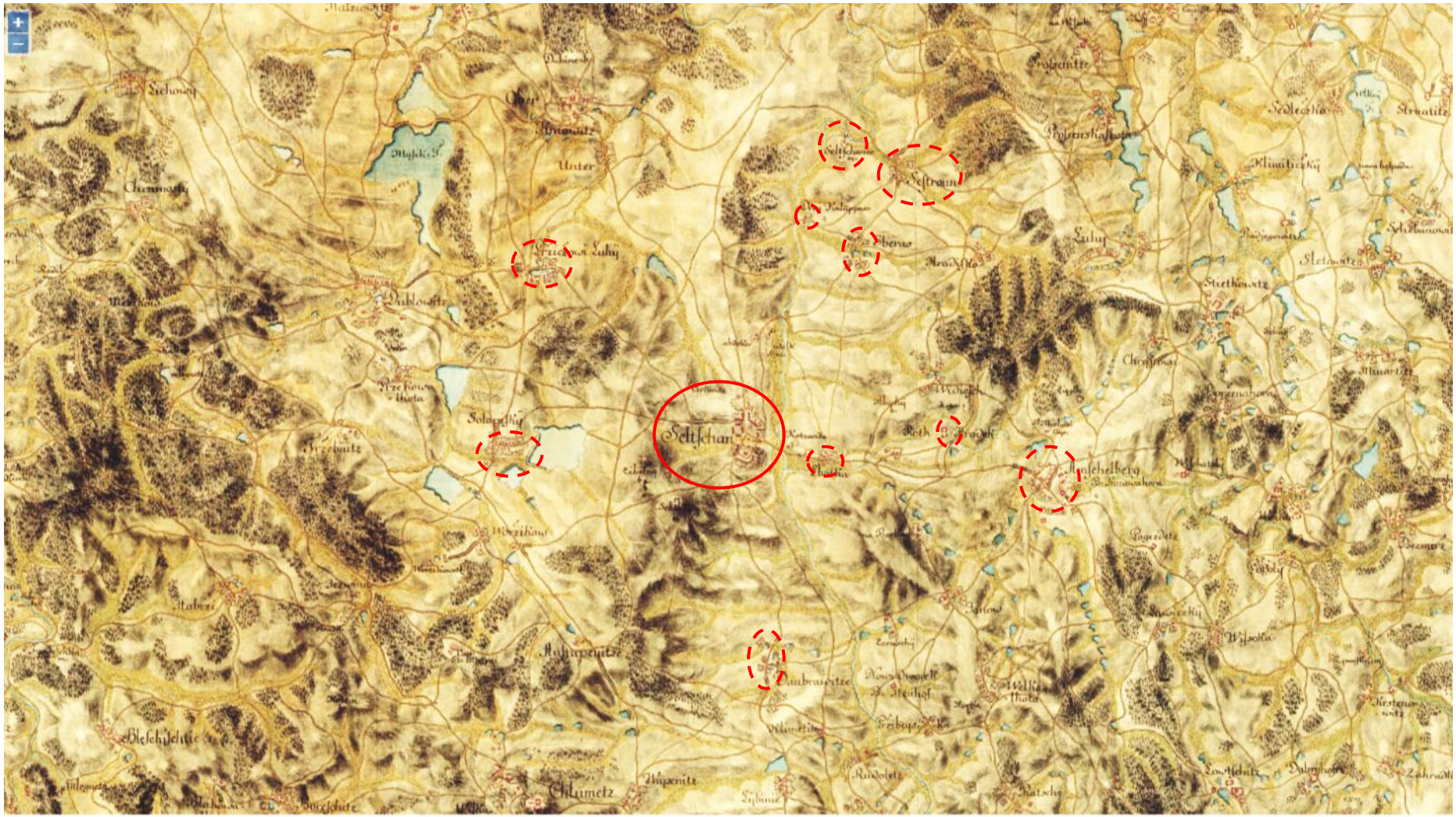
Medieval town

cca 1000 AD – 1500 AD



Jan Willenberg, Sedlčany, cca 1600, veduty.bach.cz

mapy.cz

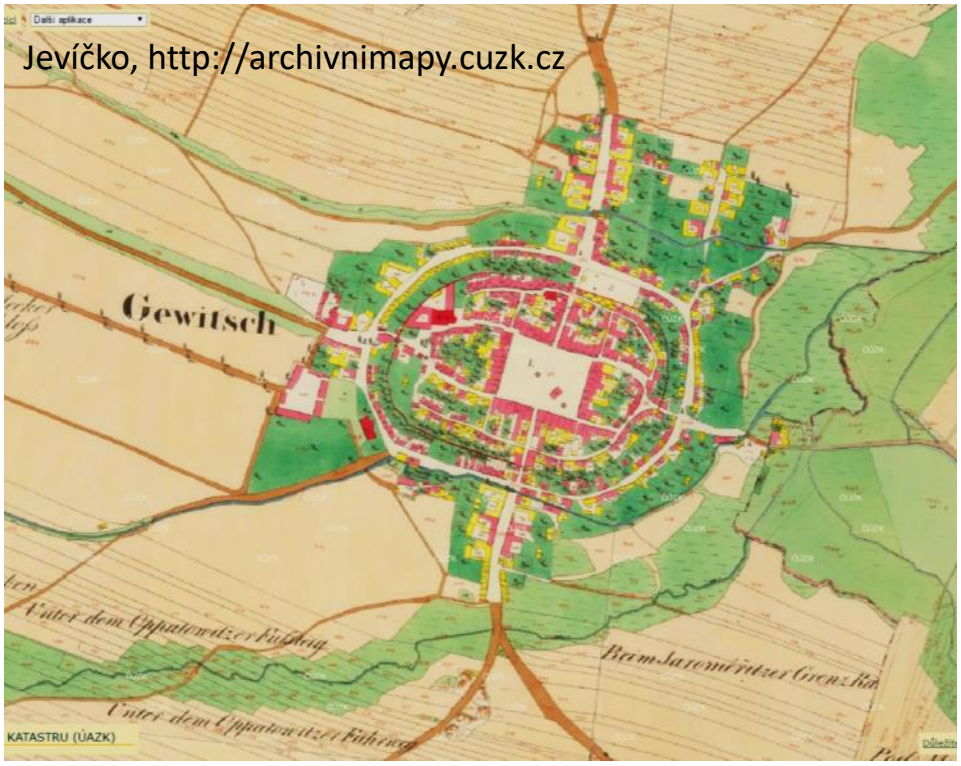


Prohlížečka na bázi OpenLayers vytvořena Moravskou zemskou knihovnou v Brně
© Laboratoř geoinformatiky Univerzity J. E. Purkyně - www.geolab.cz
© Ministerstvo životního prostředí České republiky - www.env.cz
© Austrian State Archive/Military Archive, Vienna

Czech University of Life Sciences Prague
Faculty of Environmental Sciences

First Military Survey, 1780s, oldmaps.geolab.cz

Jevíčko, http://archivnimapy.cuzk.cz

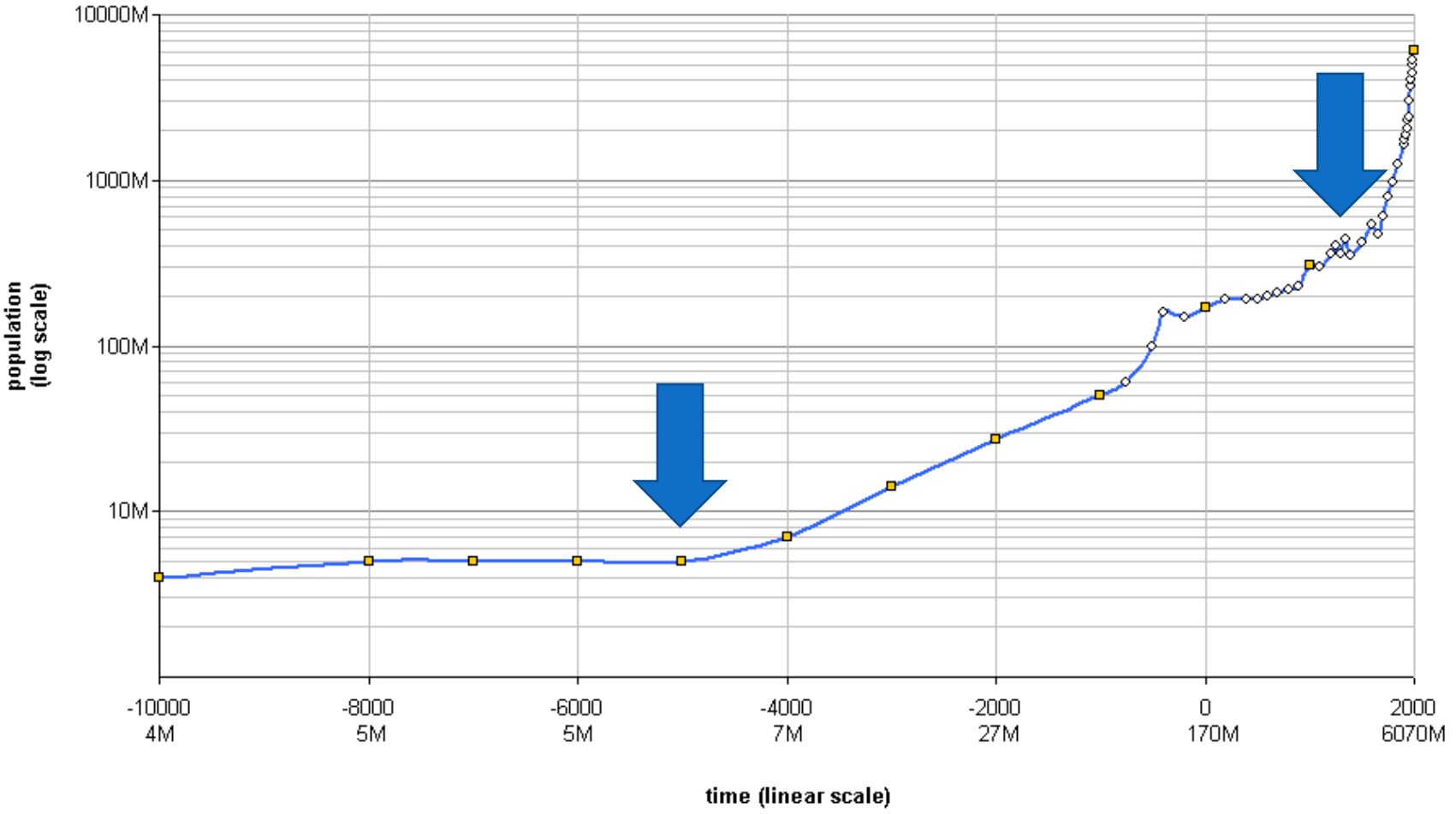


Beroun, oldmaps.geolab.cz, mapy.cz

Industrial revolution

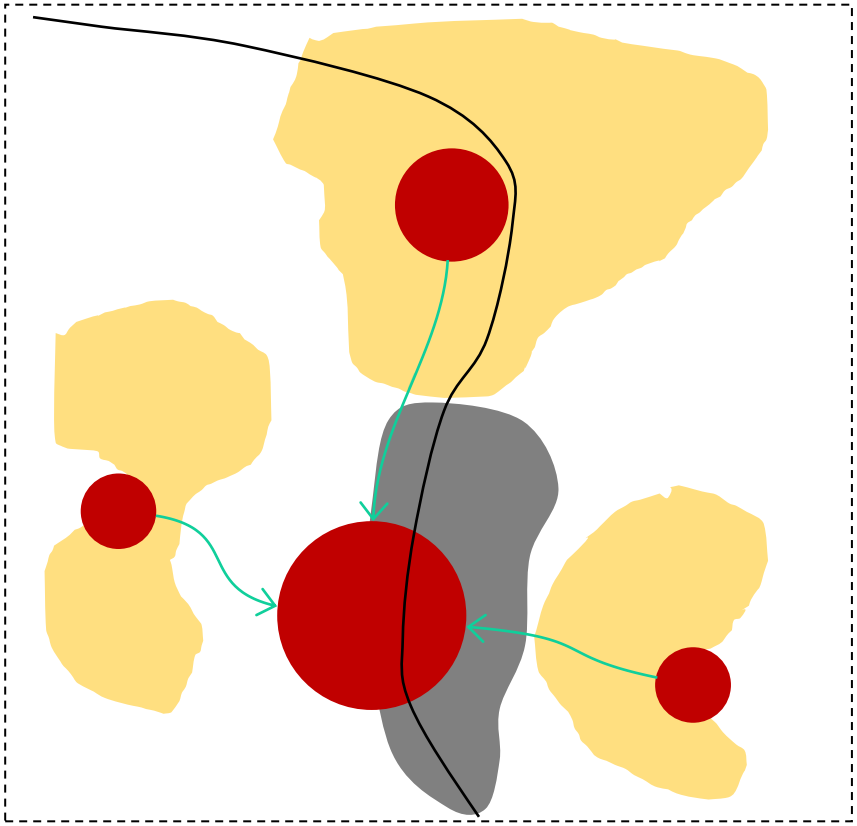
cca 1750 – 1900

James Eckford Lauder: *James Watt and the Steam Engine: the Dawn of the Nineteenth Century*, 1855



https://commons.wikimedia.org/wiki/File%3AWorld_population_growth_(lin-log_scale).png

Industry



settlement

farming area

industry

food

railway

Praha – Smíchov, 1872

Engine 354.7, production 1920s, photo P. Holub., zelpage.cz

Czech University of Life Sciences Prague
Faculty of Environmental Sciences

First Military Survey, 1780s

Second Military Survey, 1840s

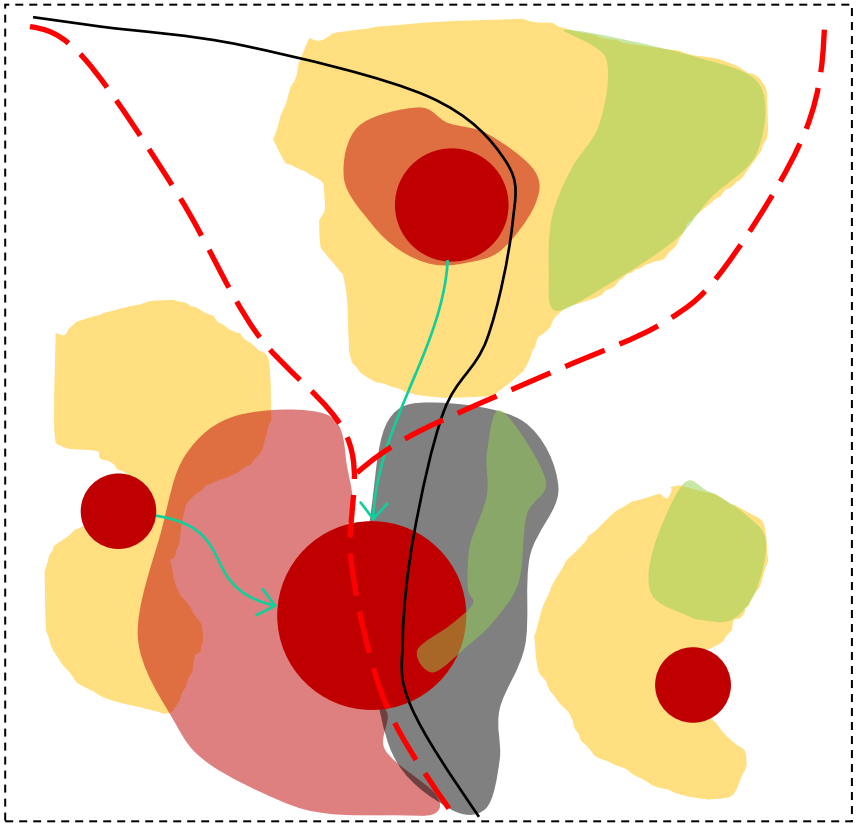
Third Military Survey, 1870s

oldmaps.geolab.cz

Czech University of Life Sciences Prague
Faculty of Environmental Sciences

mapy.cz

20th and 21st century



Scientific and technological progress ➔ new use for old environment (places, buildings, landscapes)

settlement

farming area

former industry

food

railway

highway

urban sprawl

new wilderness

Faculty of Environmental Sciences

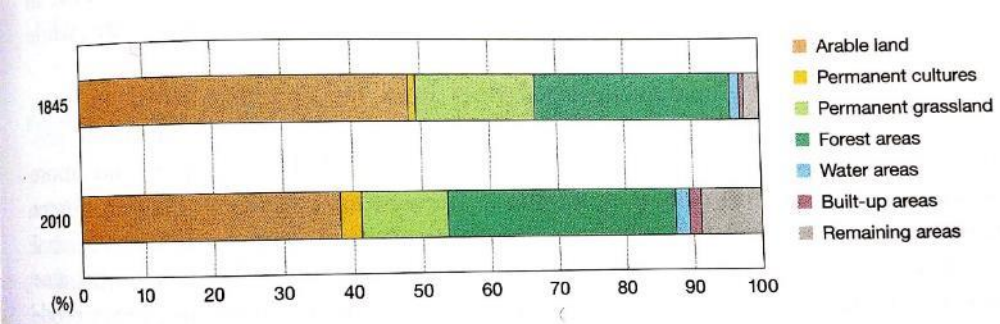


Fig. 6.38 Land use structure in Czechia between 1845 and 2010 (%). *Source* LUCC Czechia Database

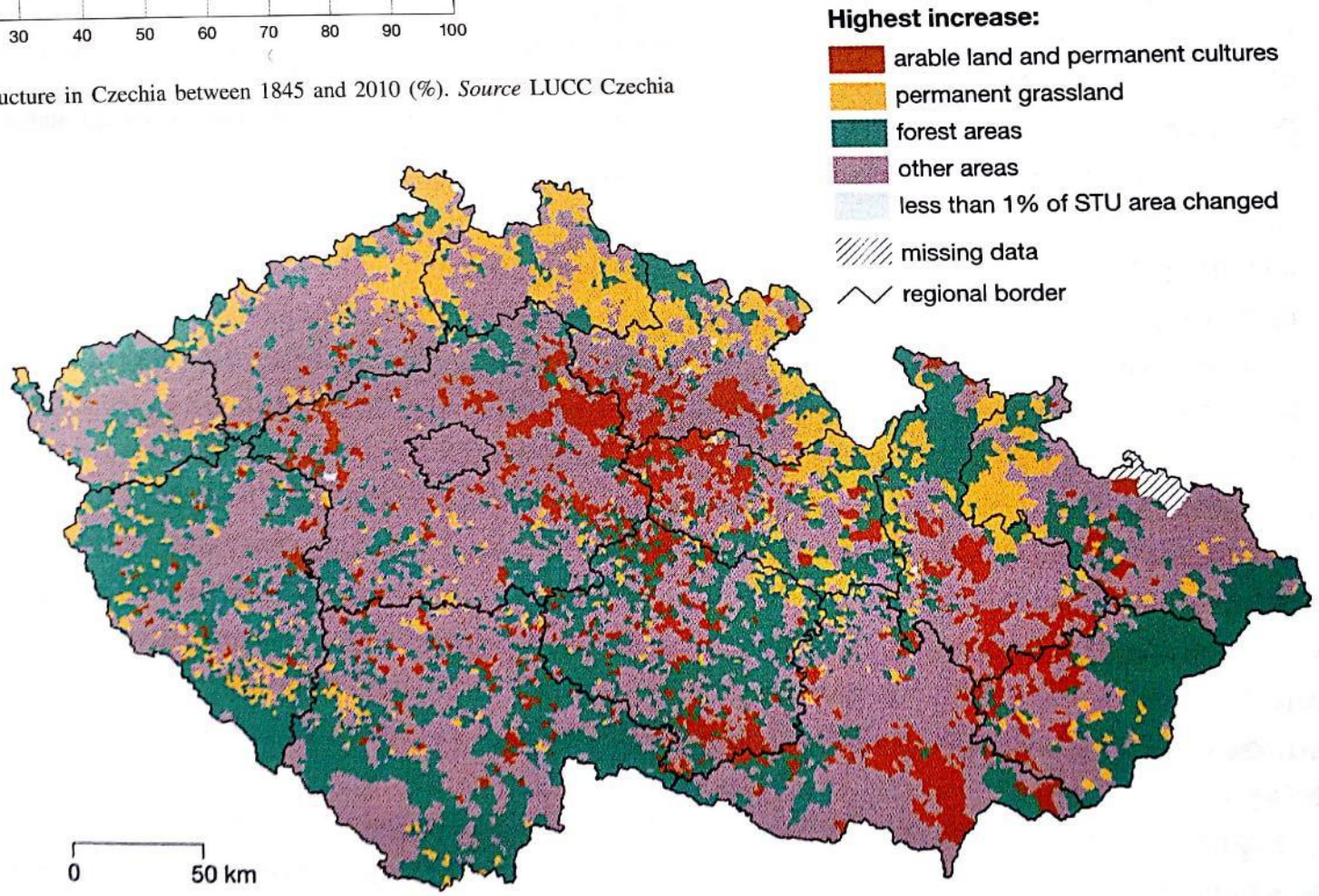


Fig. 8.3 Changes of land use structure between 1845 and 2010. *Source* LUCC Czechia Database

Bičík et al. 2015

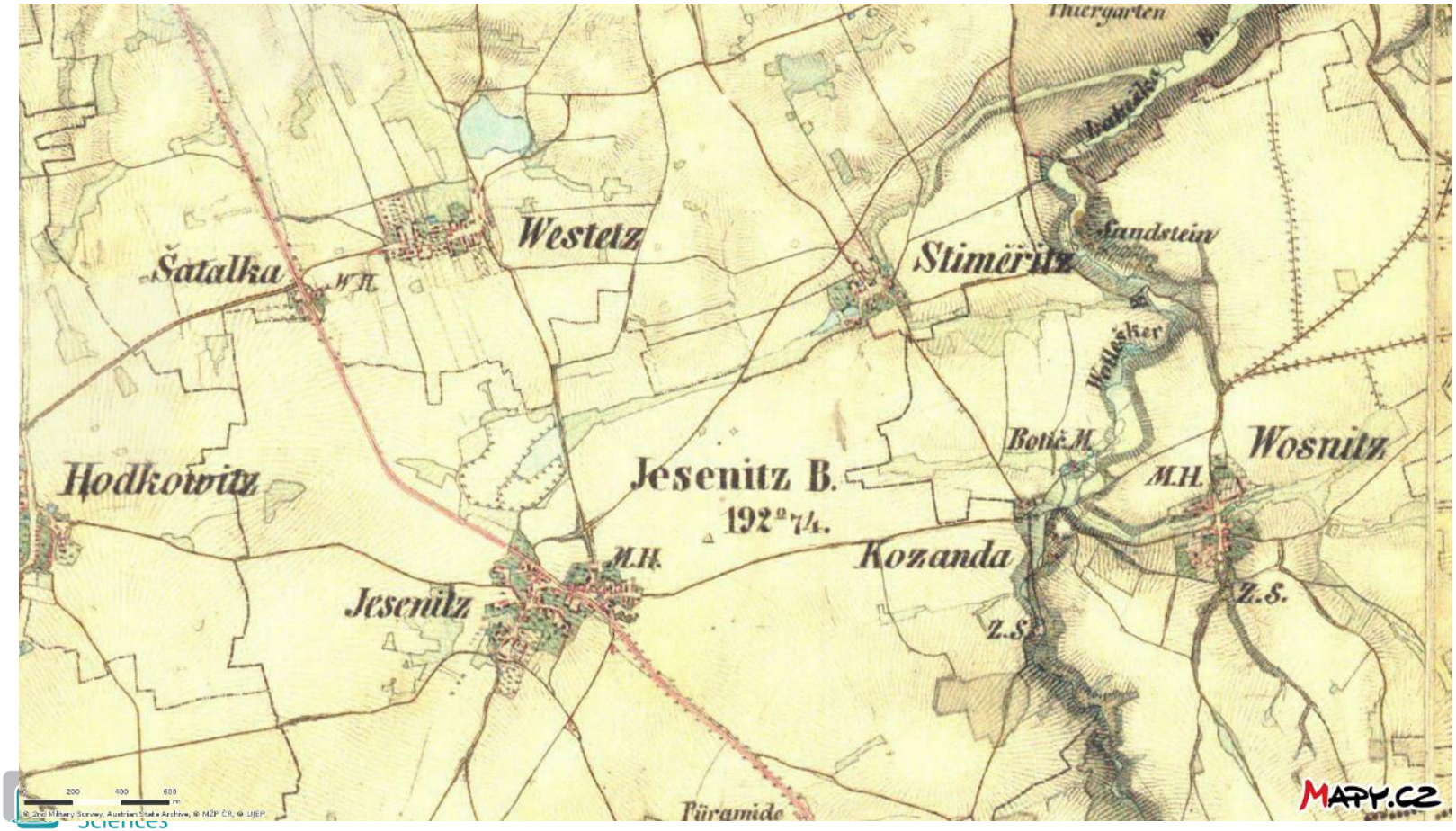
3. Today‘s problems and challenges

Faculty of Environmental Sciences

mapy.cz

Urban sprawl

- Jesenice, SE from Prague
- Second Military Survey, 19th century



Living in 1980’

„Sídliště“ (housing estates)

2003

Vestec
ZDIMĚŘICE
OSNICE
Hodkovice
JESENICE
Zlatníky-
-Hodkovice
MAPY.CZ

2006

Vestec
ZDIMĚŘICE
OSNICE
Hodkovice
JESENICE
Zlatníky-
-Hodkovice
MAPY.CZ

2012

Vestec
ZDIMĚŘICE
OSNICE
Hodkovice
JESENICE
Zlatníky-
-Hodkovice
MAPY.CZ

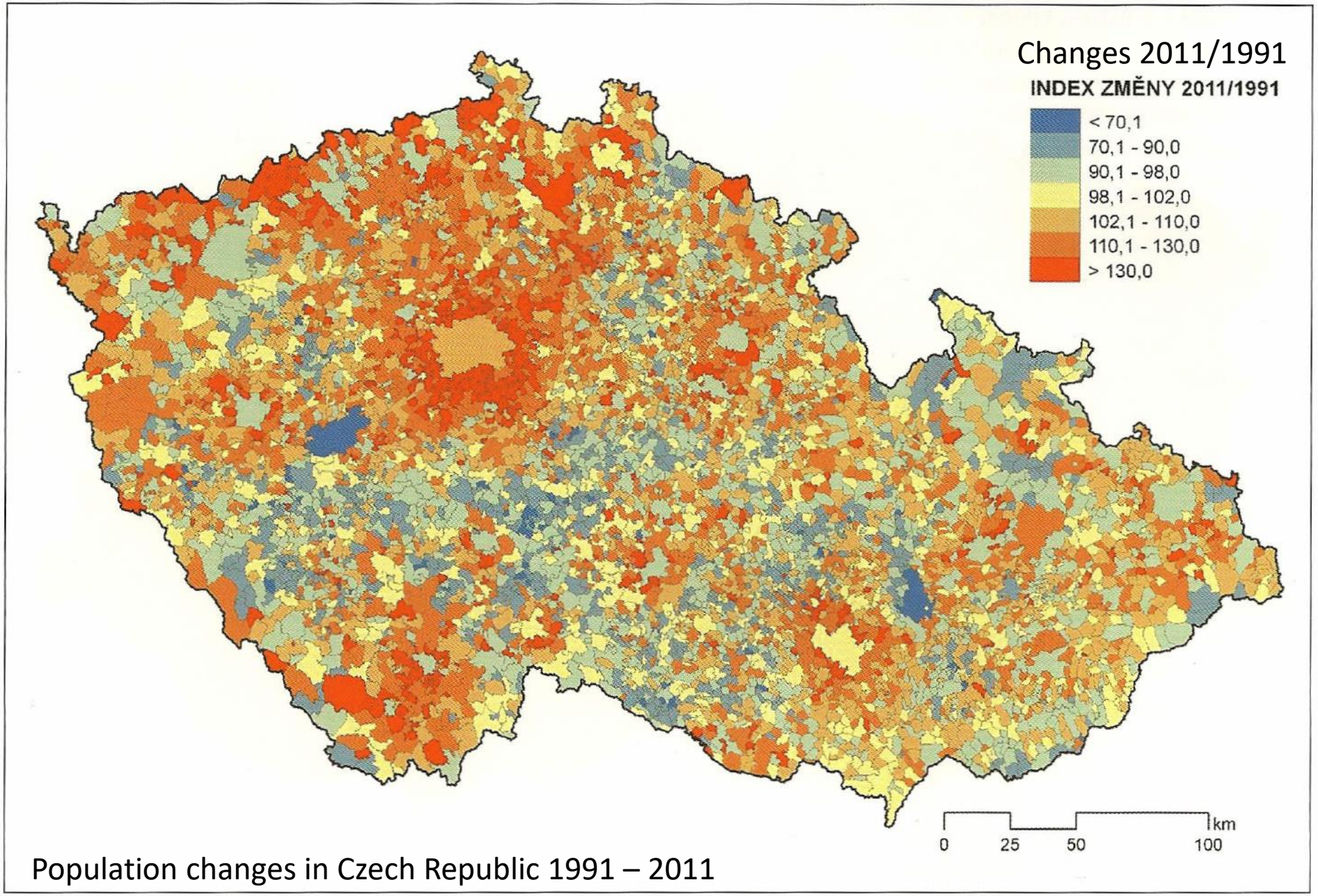
2015

Vestec
ZDIMĚŘICE
OSNICE
Hodkovice
JESENICE
Zlatníky-
-Hodkovice
MAPY.CZ

2018

How does the urban sprawl affect:
- ecology of landscape?
- economy?
- social issues?

How can spatial planning solve these issues?



Population changes in Czech Republic 1991 – 2011

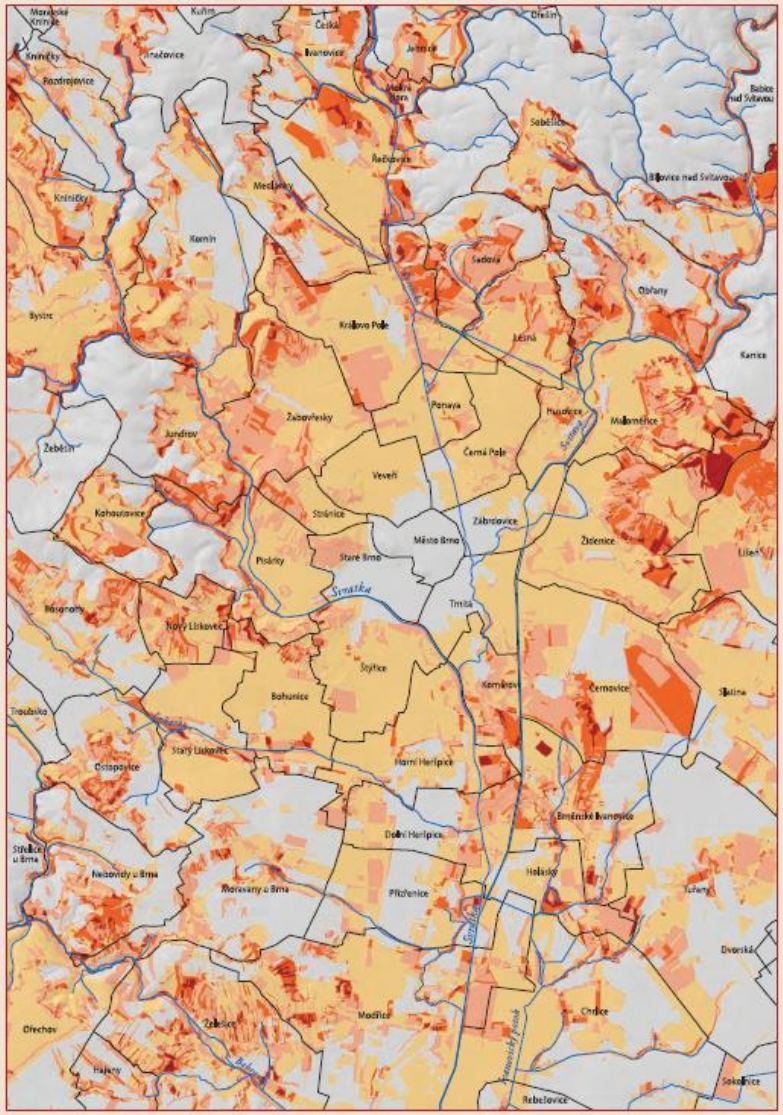
Obr. 4: Vývoj počtu obyvatel v obcích Česka 1991–2011

Sýkora & Mulíček 2012

ZMĚNY VYUŽITÍ KRAJINY – BRNO A OKOLÍ (1838–2006)

LAND USE CHANGES – BRNO AND SURROUNDINGS (1838–2006)

Marek Havlíček, Jaromír Demek, Peter Mackovčin



Landscape Atlas of the Czech Republic 2009

Economic growth X environmental and heritage protection

Jezeří Castle vs.
Surface mining

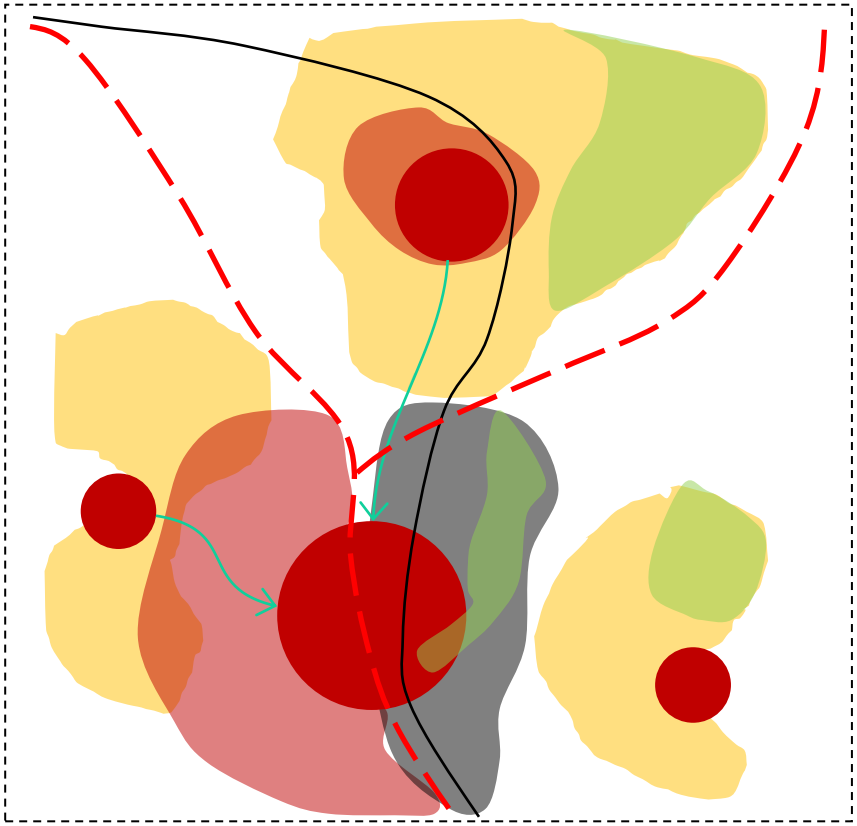
mostecky.denik.cz

Motorway Praha – Dresden vs.
Protected landscape area

Sciences

ekonomika.idnes.cz

New use for old places



- former industrial areas – brownfields
- former agricultural areas – „new wilderness“

settlement
farming area
former industry
food
railway
highway
urban sprawl
new wilderness

Faculty of Environmental Sciences

Brownfields

New wilderness

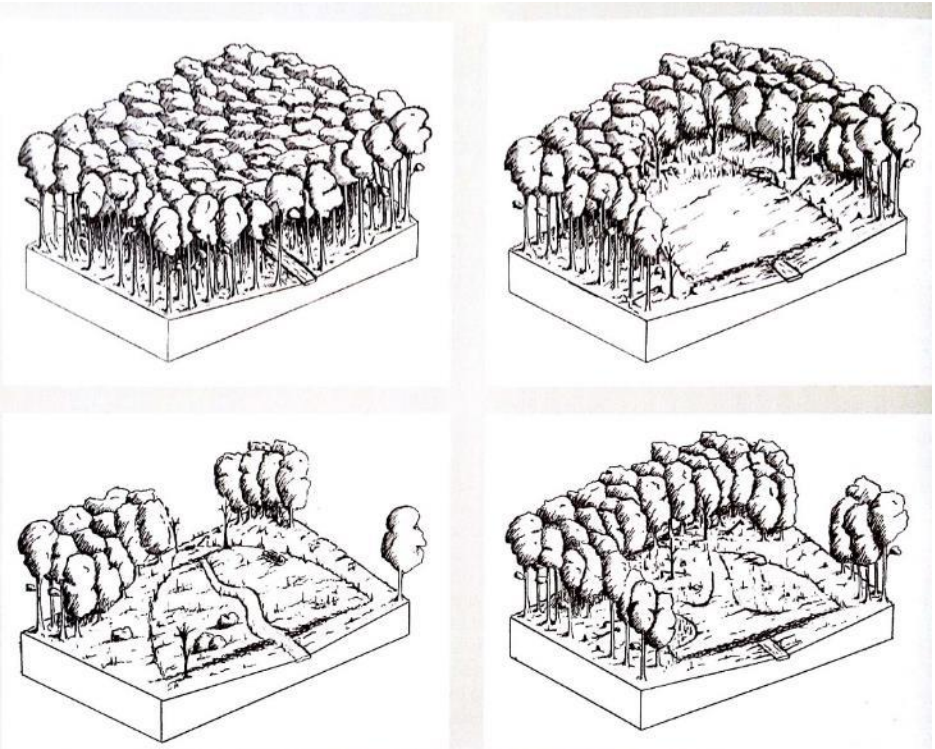


Abb. 15 Entstehung einer „Biberwiese“ in einer Bachaue.[1230] Links oben: Ausgangssituation; rechts oben: die Anhebung des Wasserspiegels durch den Biberdamm verursacht das Absterben von Bäumen und führt zur Bildung eines Sees; links unten: Verlandung des Sees, am Rande „Fällplätze“ des Bibers; rechts unten: Zustand, nachdem der Biber das Revier aufgrund einer Erschöpfung der Bau-nahen Winternahrungsvorräte verlassen hat (Zeichnung Kathrin Sagmeister).

Abb. 155 Eichhalde im Großen Lautertal bei Buttenhausen (Schwäbische Alb, Baden-Württemberg) im Jahr 1936 (oben) und 1997 (unten). Deutlich sind die Auswirkungen von Nutzung bzw. Nutzungsaufgabe zu erkennen. Mit Aufgabe der Beweidung ist die ehemals offene Schafweide verbuscht und mit Gehölzen bestockt (Foto 1936 Bothner, Landesmedienzentrum Baden-Württemberg; Foto 1997 Rainer Ressel).

Poschold 2015

Today‘s problems and challenges

- Problems
  - Urban sprawl
  - Economic growth X environmental and heritage protection
  - New use for old places
  - Overpopulation
  - Tourism
  - Conflict of interests
- Challenges
  - Sustainable development
  - Participation
  - Alternative transport
  - New technologies
  - How do we *use* the

mapy.cz

Perception of landscape/town by different groups of people

Universal (?) beautiful landscape

illustration Milan Valeš
Maier et al. 2012

- Which challenges will our towns face in the next decades?
- What can we do with it?