Shin Alexandre Koseki
PhD MArch

Chôros Paris
Lausanne Center for Digital Humanities
EPFL Habitat Research Center

Spatial Design & Democracy

Mapping the Intersect of Values in Urban Space

Universidad Torcuato Di Tella, Buenos Aires

June 25, 2020

10.5281/zenodo.3909467

Koseki S.A, “Spatial Design & Democracy”. Buenos Aires, June 25, 2020

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The intersection of values and urban space is a powerful tool to understand and design better cities and territories for inhabitants

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Changyang, Yichang, Hubei, China — Zhenrui Mei

Highlands Ranch, United States — Craig Hellier

Koseki S.A, “Spatial Design & Democracy”. Buenos Aires, June 25, 2020

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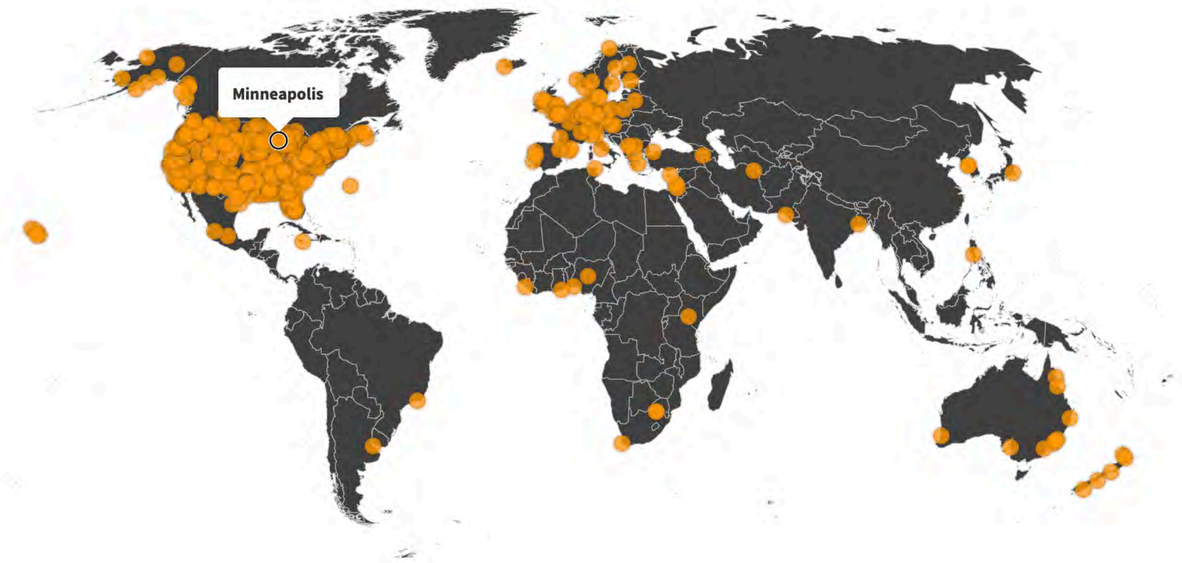
Anti-racism protests in Montreal, Canada – Ying Ge



George Floyd Solidarity Prostests — © Al Jazeera

George Floyd's death followed his arrest in Minneapolis

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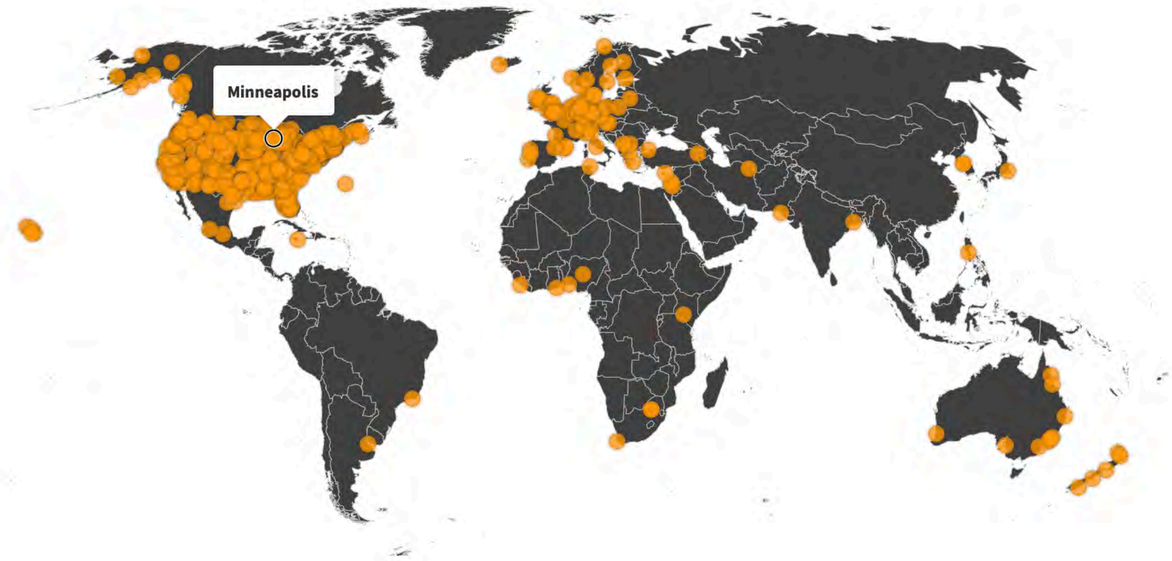
From spatial values
To design tools

- Connectedness

- Accessibility

- Distribution



George Floyd Solidarity Prostests — © Al Jazeera

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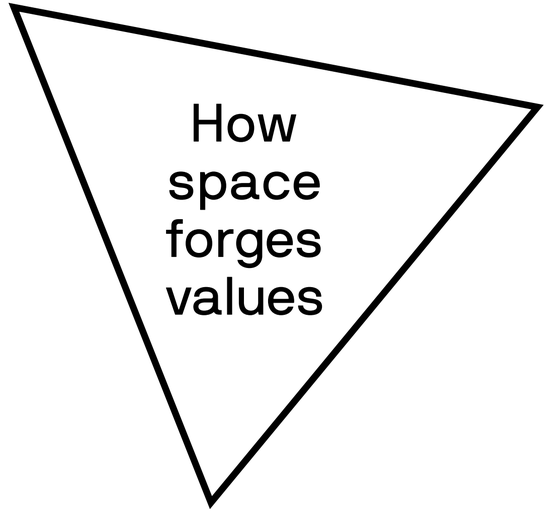
Anti-racism protests in Montreal, Canada – Ying Ge

Highlands Ranch, United States — Craig Hellier

Copresence



Telecom

Mobility

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Values & Spatial Design

“Happy Island”— Superstudio, 1971

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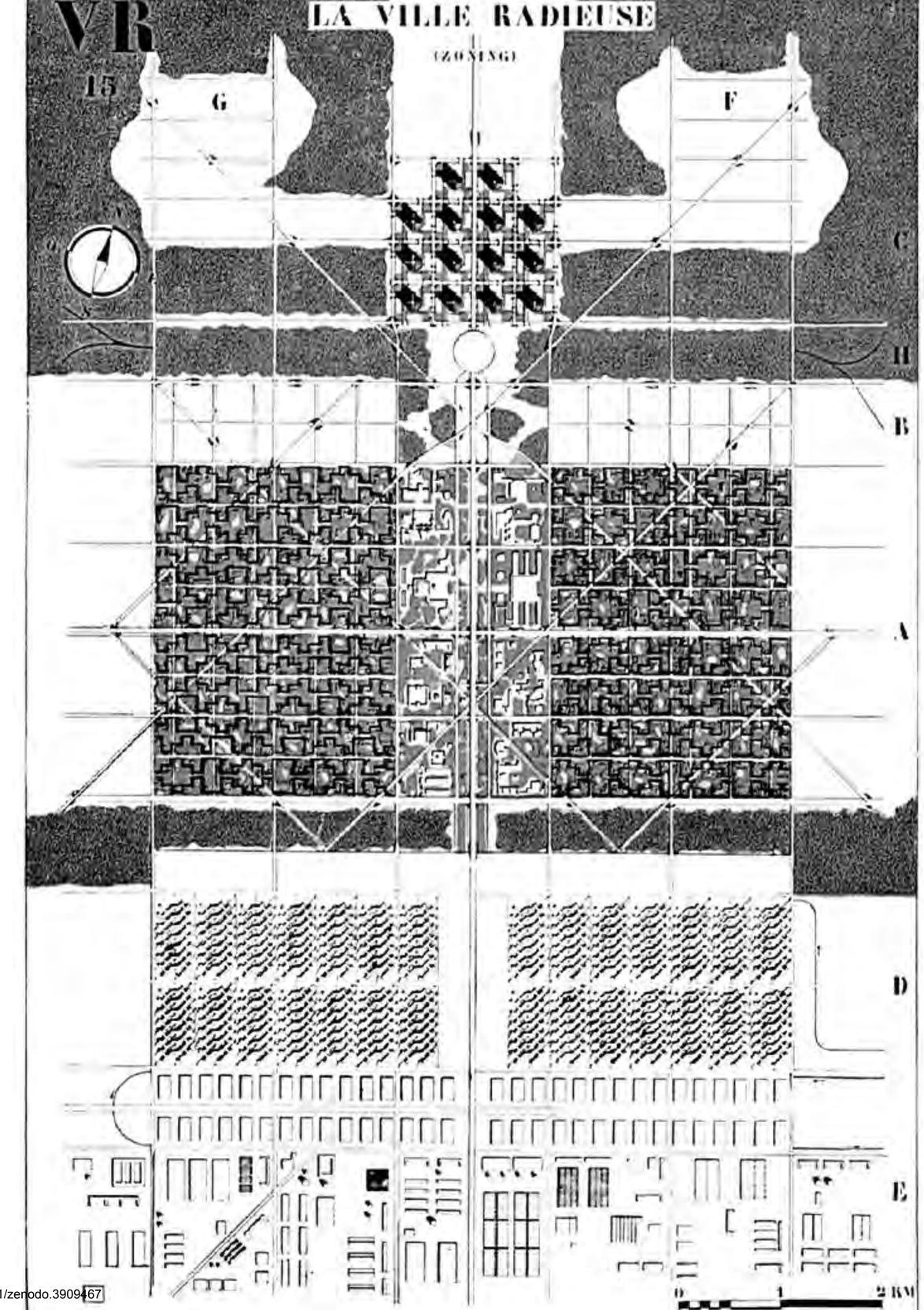
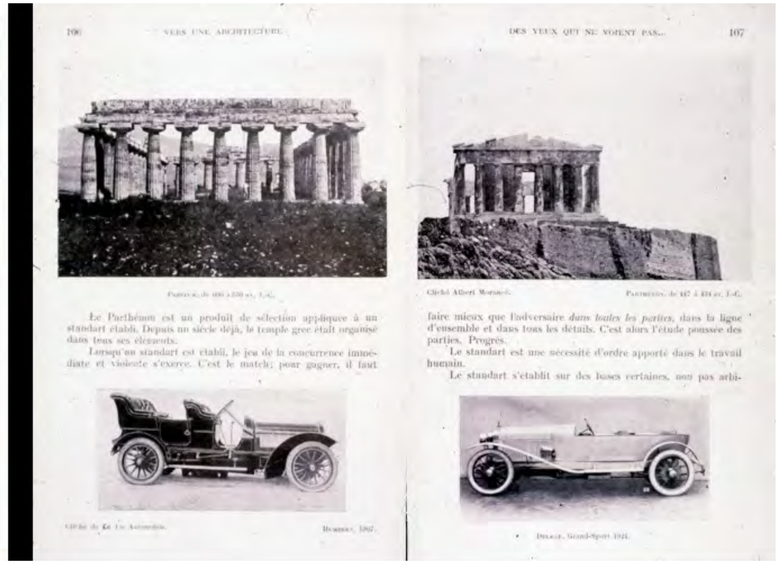
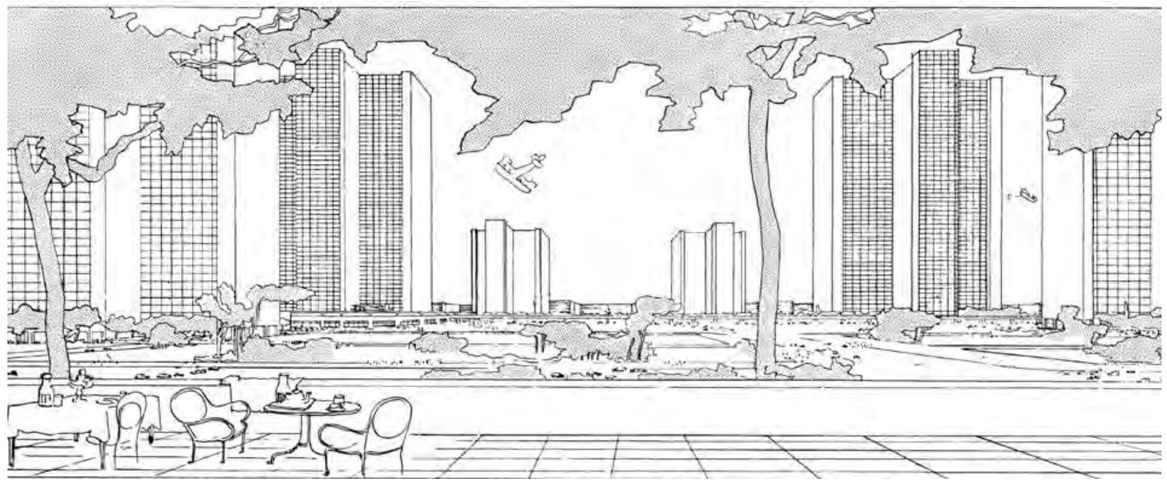




Vers une architecture — Le Corbusier, 1923



Ville à trois millions d'habitants — Le Corbusier, 1922

La Ville Radieuse — Le Corbusier, 1922

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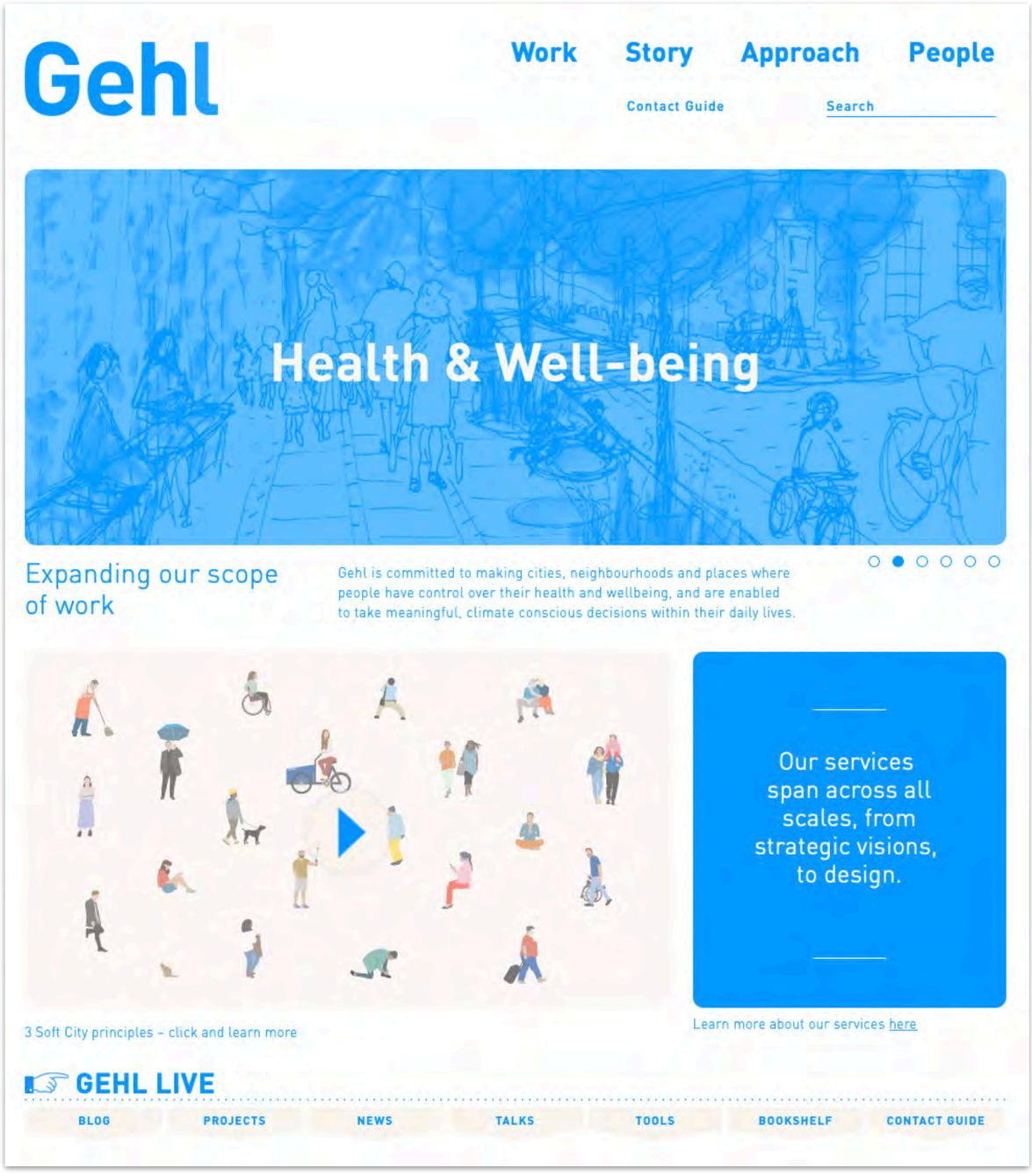
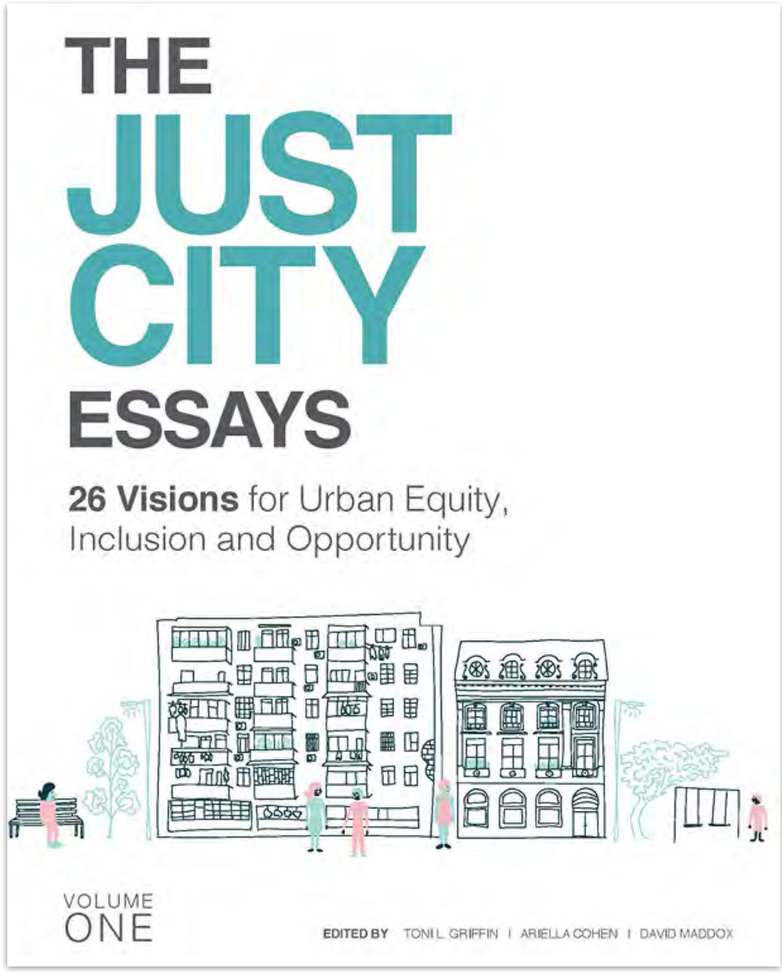


Gehl website — Gehl, 2020



The Just City Essays — T. Griffin, A. Cohen & D. Maddox (Eds)

Sustainable Development Goals — UN

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How do your values influence your design?

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How does your design change people’s values?

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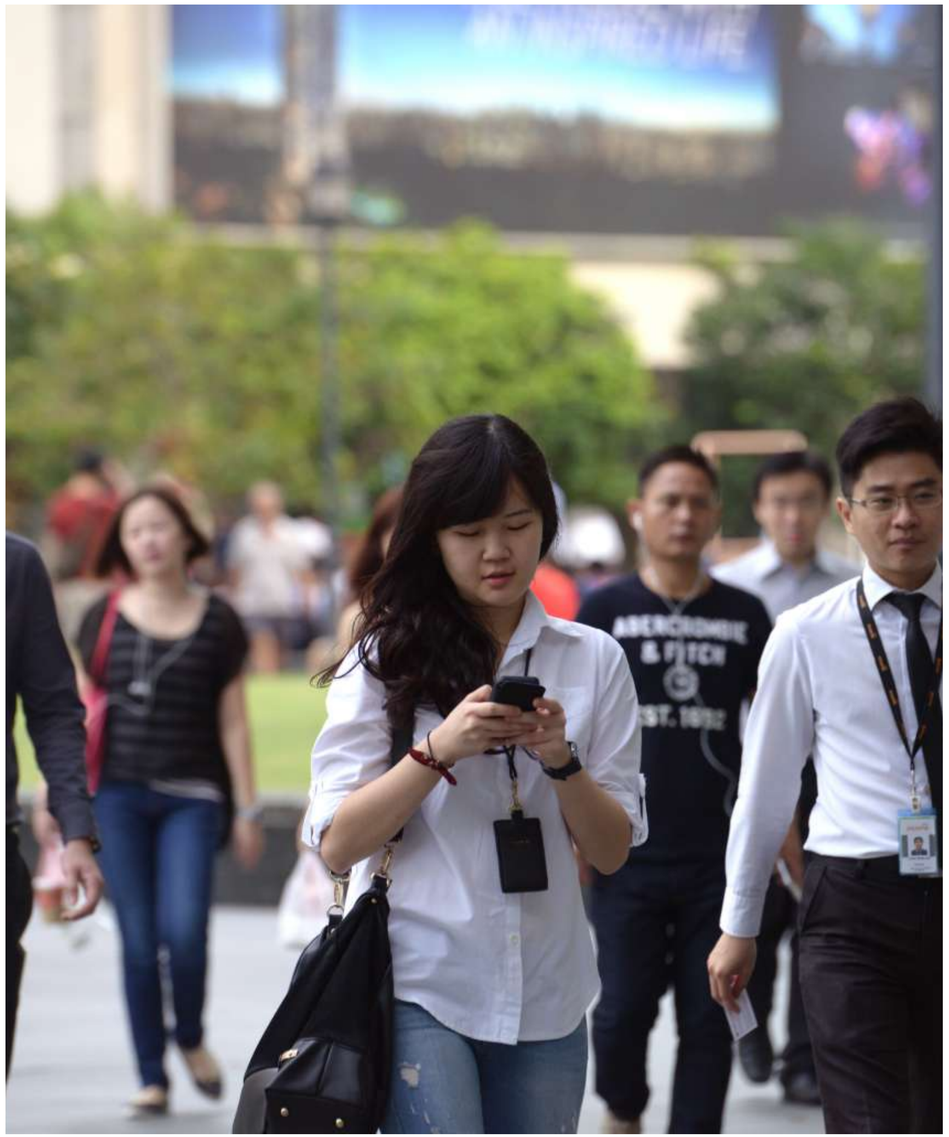
Values & Urban Space



Young women in Geneva (left) and Singapore (above)

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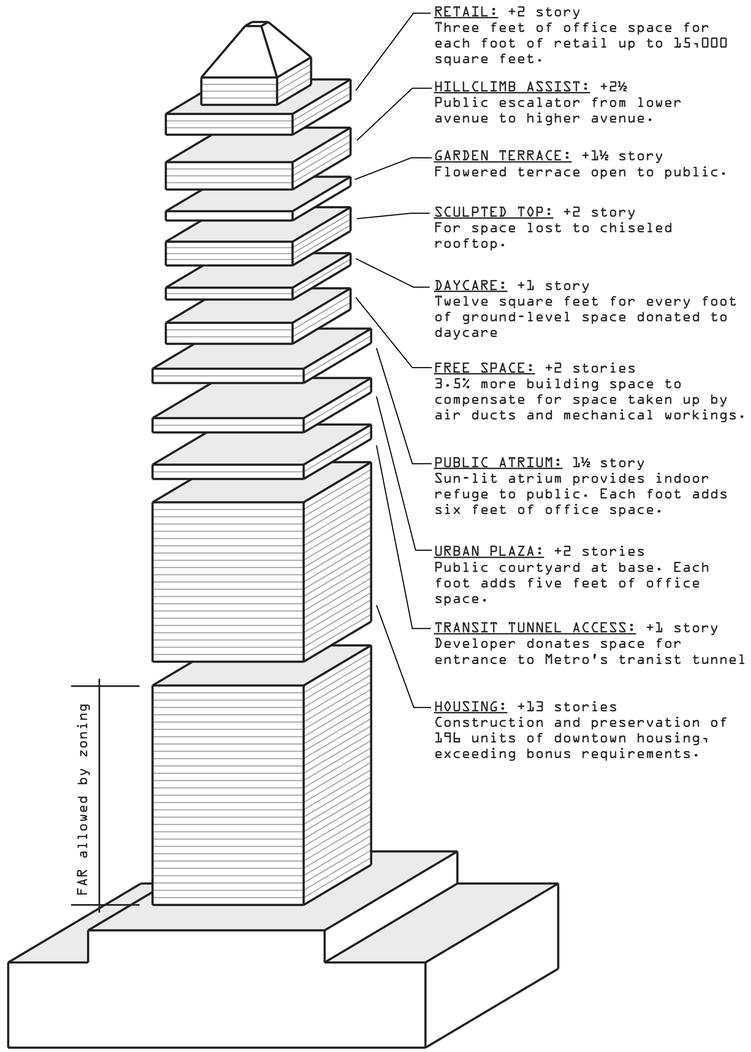
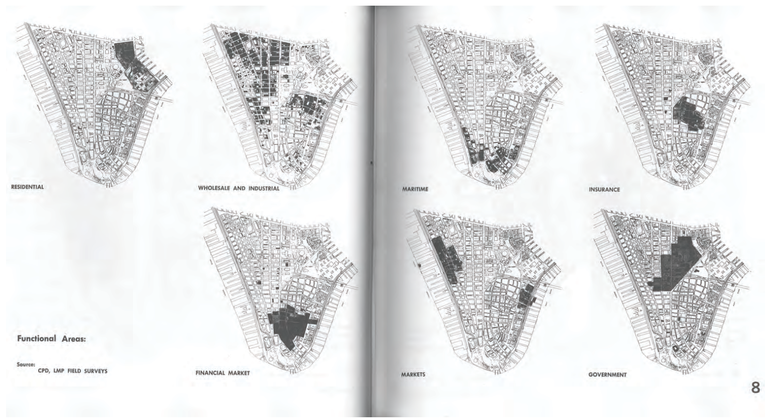
New York Stock Exchange on Wallstreet — J. Geerds, 2008



Development right bonuses in New York City — Garvin, 1995



Historical business clusters in Lower Manhattan — NYC Planning Commission, 1966

Real Estate Value on Manhattan Rankin, 2007

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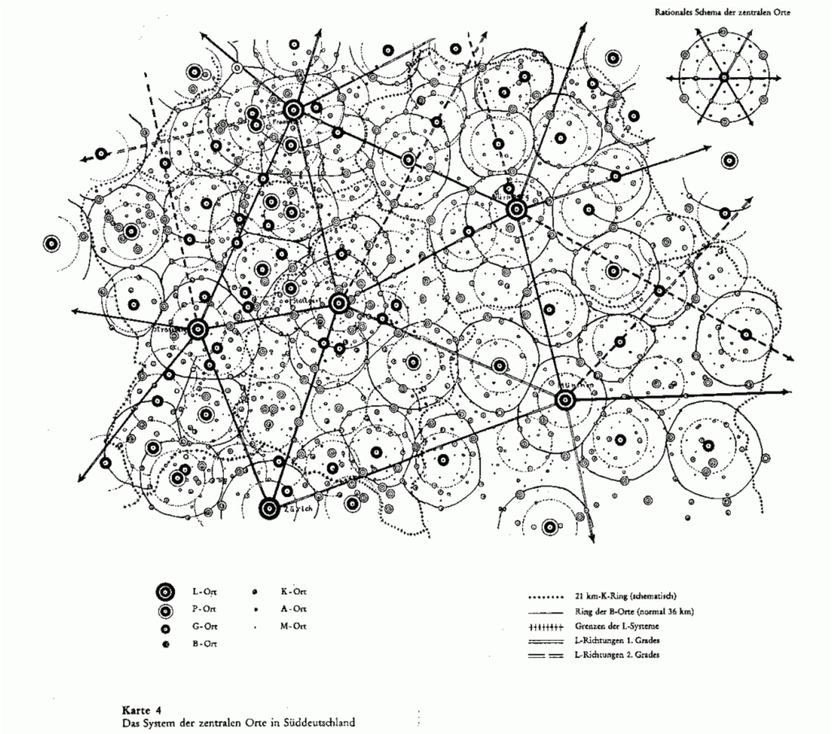
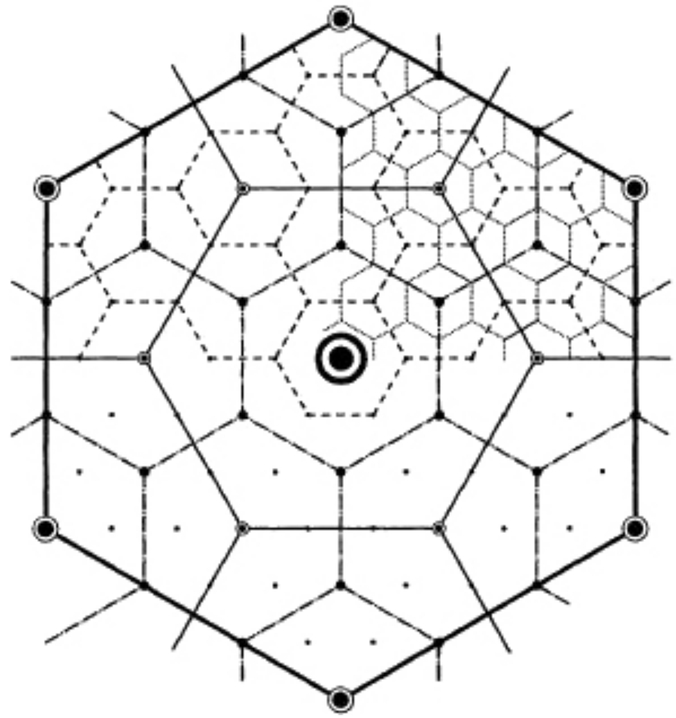
res, June 25, 2020

Jusi, Kohlberg, Germany — B. Pudill



Karte 4
Das System der zentralen Orte in Süddeutschland

The Systems of the Central Places in Southern Germany — W. Christaller, 1933



Central Place Theory — W. Christaller, 1933

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The Vessel, New York — © Four Four

Prada Store, Marfa (TX) — T. Trad

Zermatt, Switzerland — M. Thompson

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Advertisement for Appenzeller Cheese — Appenzeller SA

Zurich, Switzerland — C. Schwartz

Village, Switzerland — T. T. M. Tran

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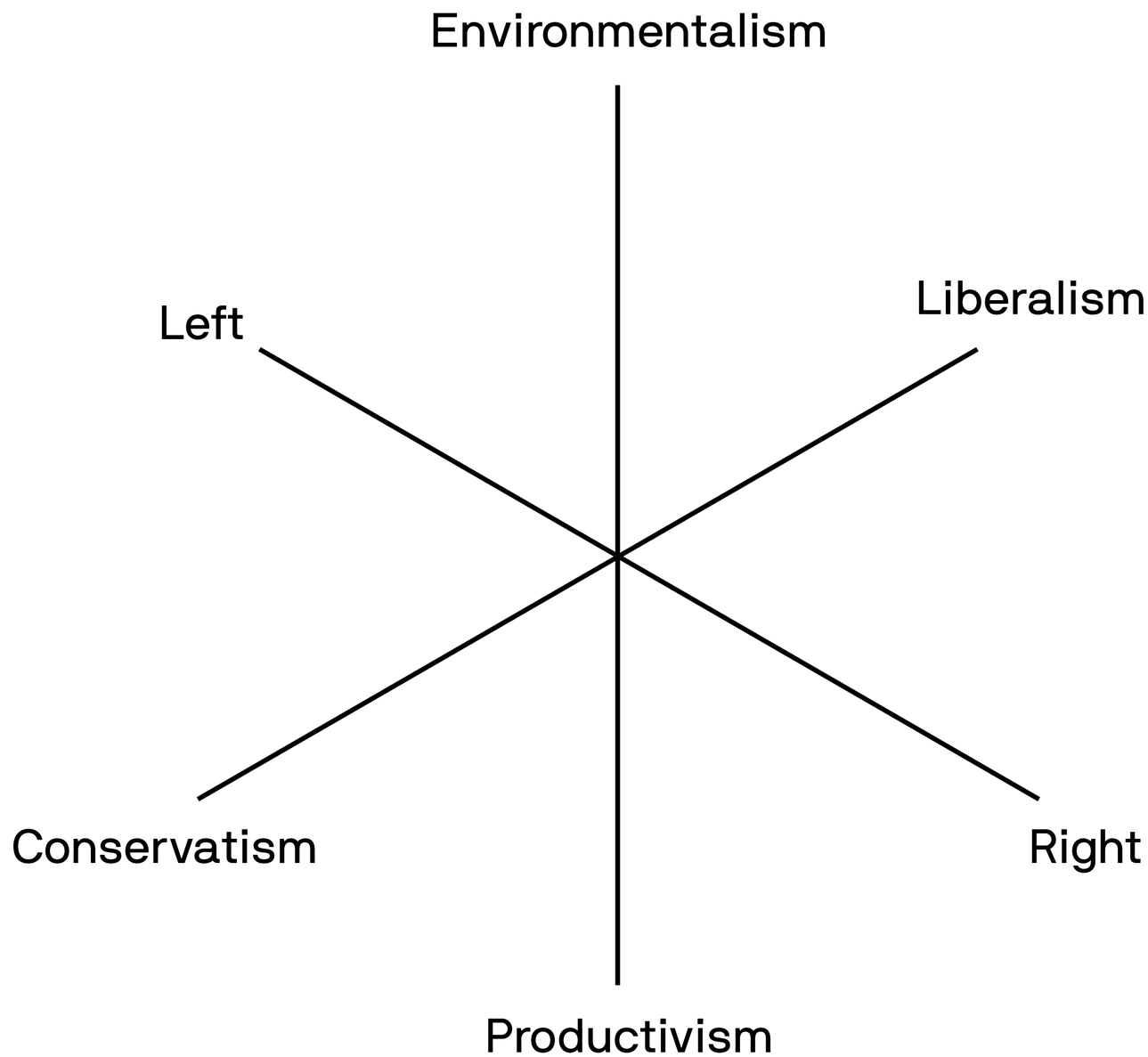

Three political axes

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How do political values evolve through time and space?

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US Presidential Election 2016

Results mapped at county level showing the candidate with the largest vote share in each area

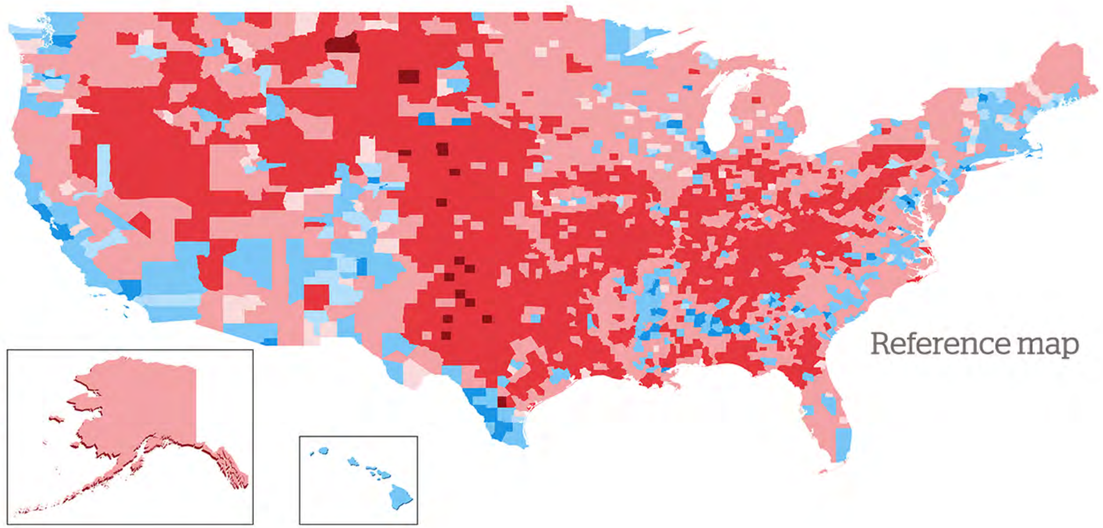
Overall result:

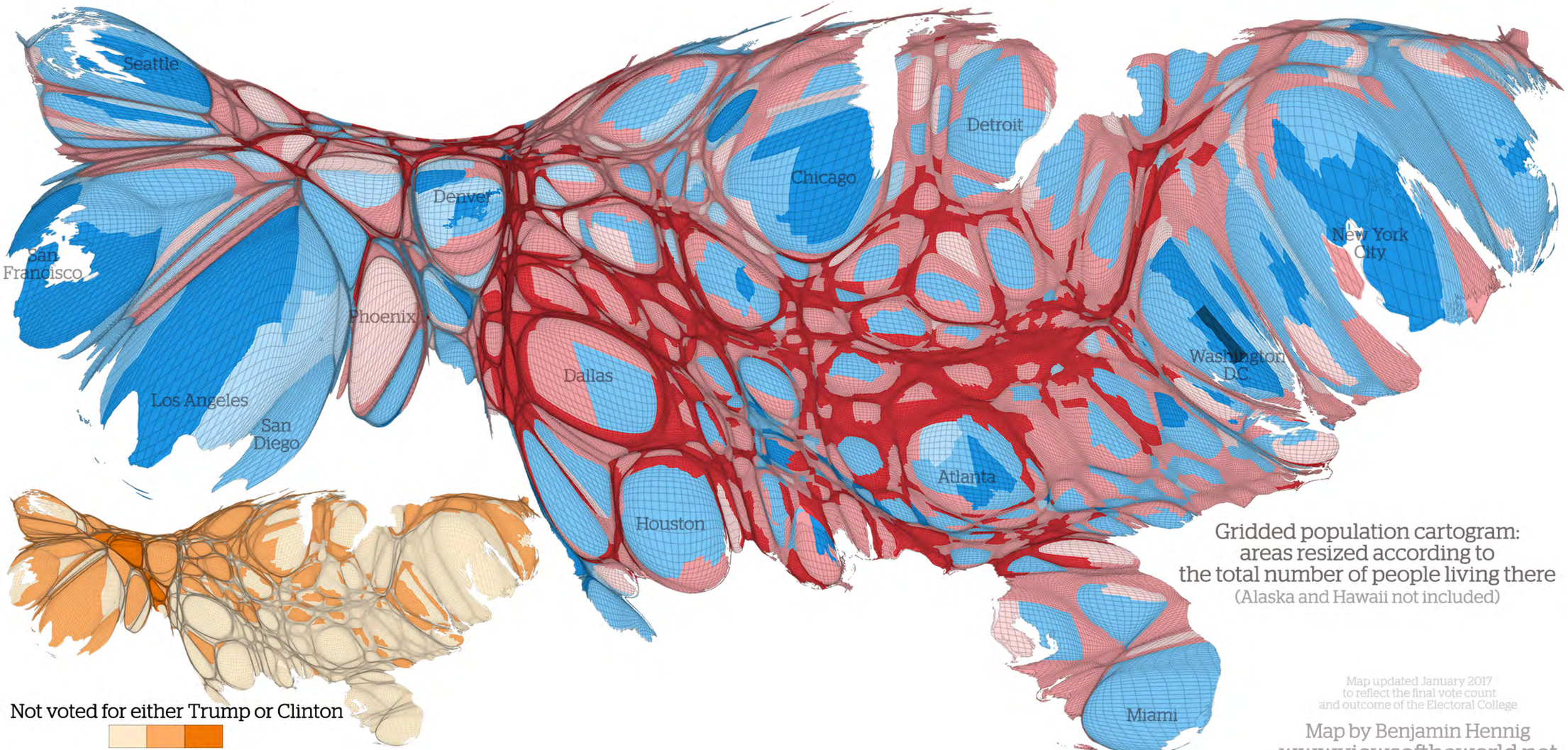
Trump
62,979,636 votes (46.1%)
306 electoral votes
(received 304 in the Electoral College)

Clinton
65,844,610 votes (48.2%)
232 electoral votes
(received 227 in the Electoral College)

Other candidates
7,804,213 votes (5.7%)

Vote share
of candidate with most votes





Gridded population cartogram:
areas resized according to
the total number of people living there
(Alaska and Hawaii not included)

Map updated January 2017
to reflect the final vote count
and outcome of the Electoral College

Map by Benjamin Hennig

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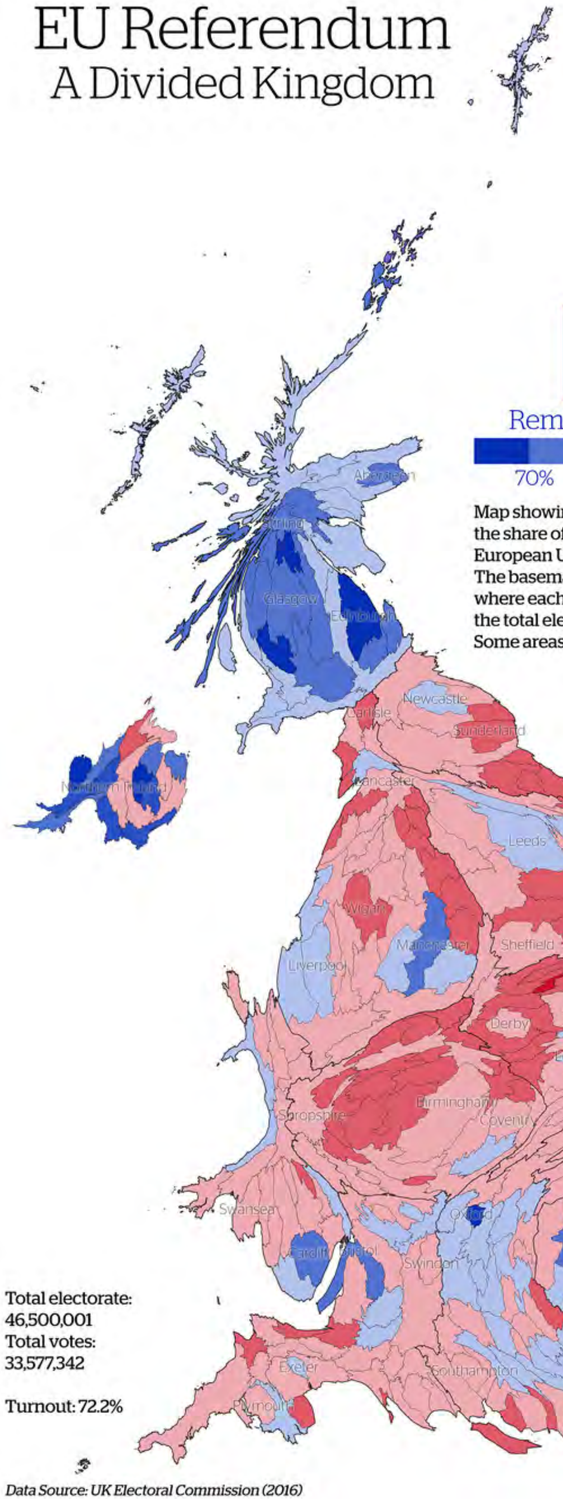
EU Referendum
A Divided Kingdom

Map by Benjamin Hennig
www.viewsoftheworld.net



Remain vs Leave

70% 60% 50/50 60% 70%

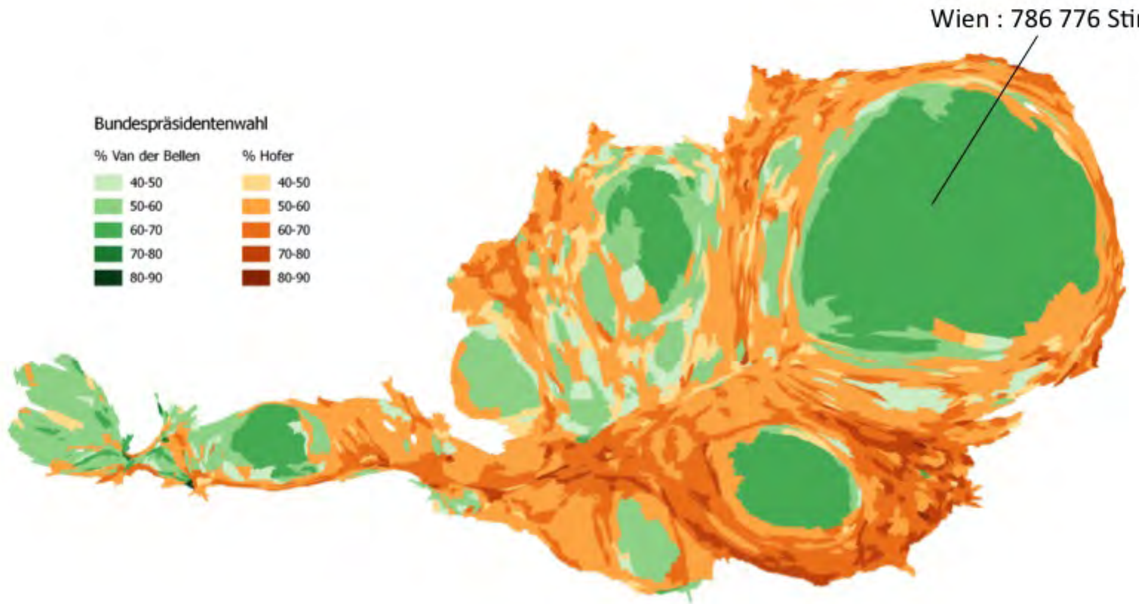
Map showing electoral areas shaded by the share of votes for remaing in / leaving the European Union.
The basemap is a cartogram transformation where each area is resized according to the total electorate in that area.
Some areas are labeled for orientation.

Total electorate: 46,500,001
Total votes: 33,577,342

Turnout: 72.2%

Not shown in this map: Gibraltar
Remain: 95.9%, Leave: 4.1%
Turnout: 83.6%

Data Source: UK Electoral Commission (2016)



French Presidential Election 2017

Results mapped at commune level showing the candidate with the largest vote share in each area

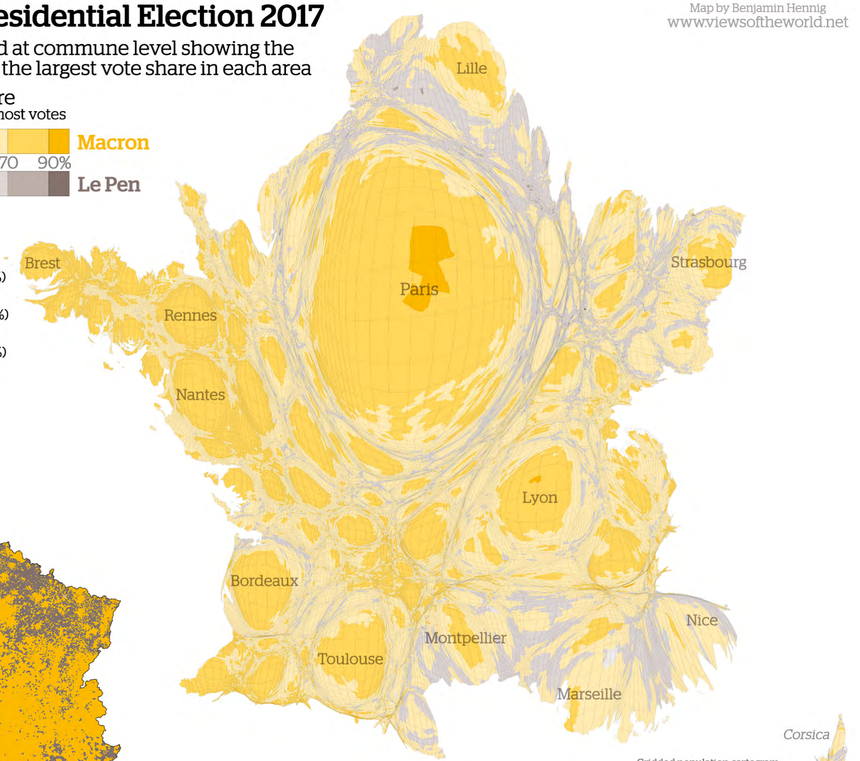
Map by Benjamin Hennig
www.viewsoftheworld.net

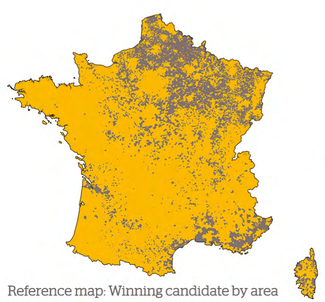
Vote share
of candidate with most votes

Macron
0 50 70 90%
Le Pen

Overall result:

Macron
20,743,128 votes (66.10%)
Le Pen
10,638,475 votes (33.90%)
Turnout
35,467,327 votes (74.56%)





Reference map: Winning candidate by area

Gridded population cartogram:
areas resized according to
the total number of people living there

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Advertisement for and against the 1994 vote on the Transalpine tunnel

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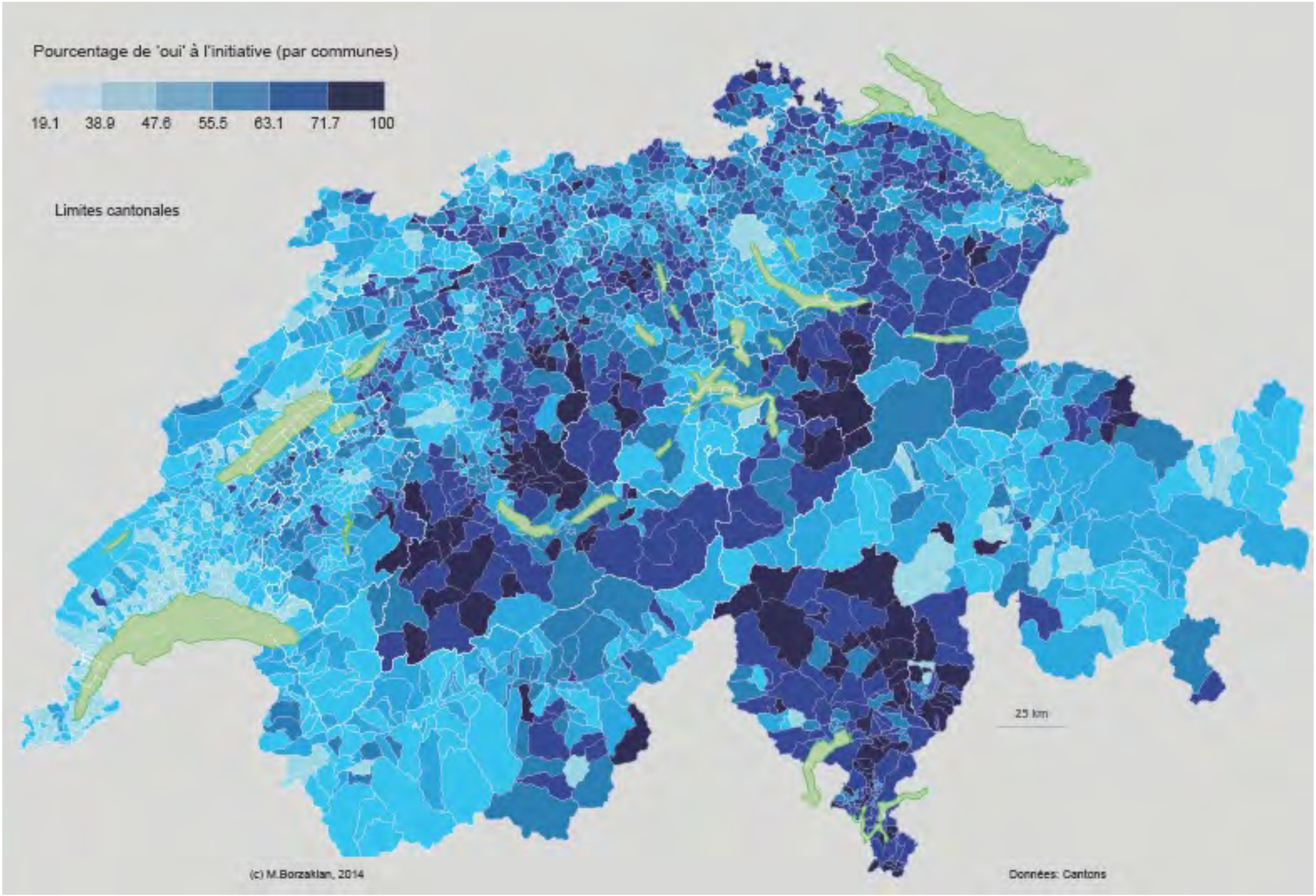

2014 Vote on “Against Mass Immigration”, M. Borzakian

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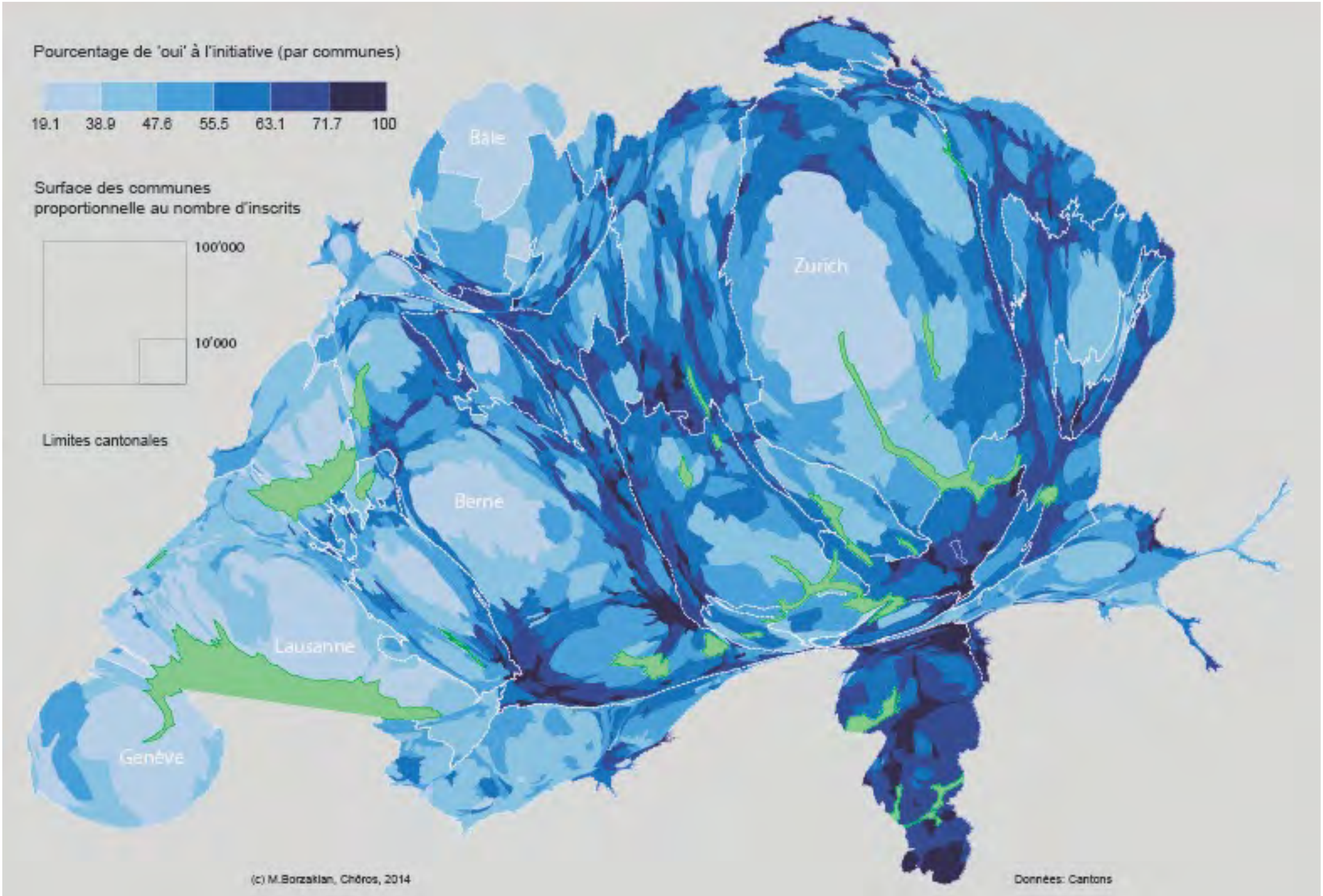

2014 Vote on "Against Mass Immigration", M. Borzakian

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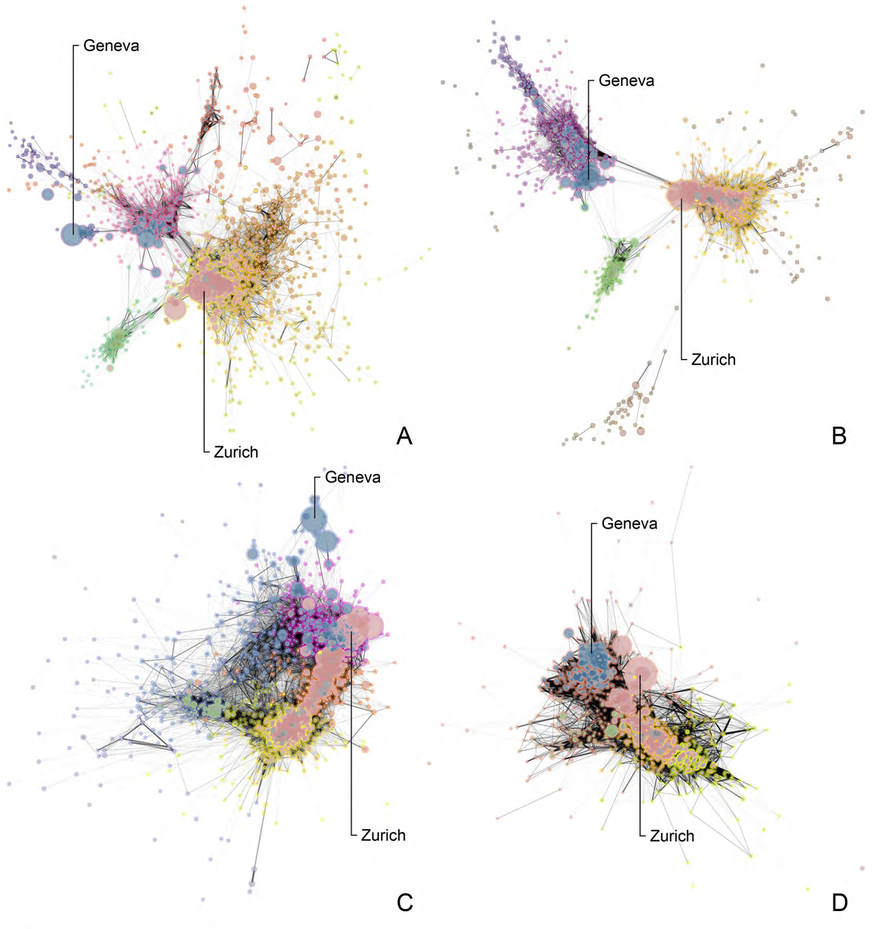
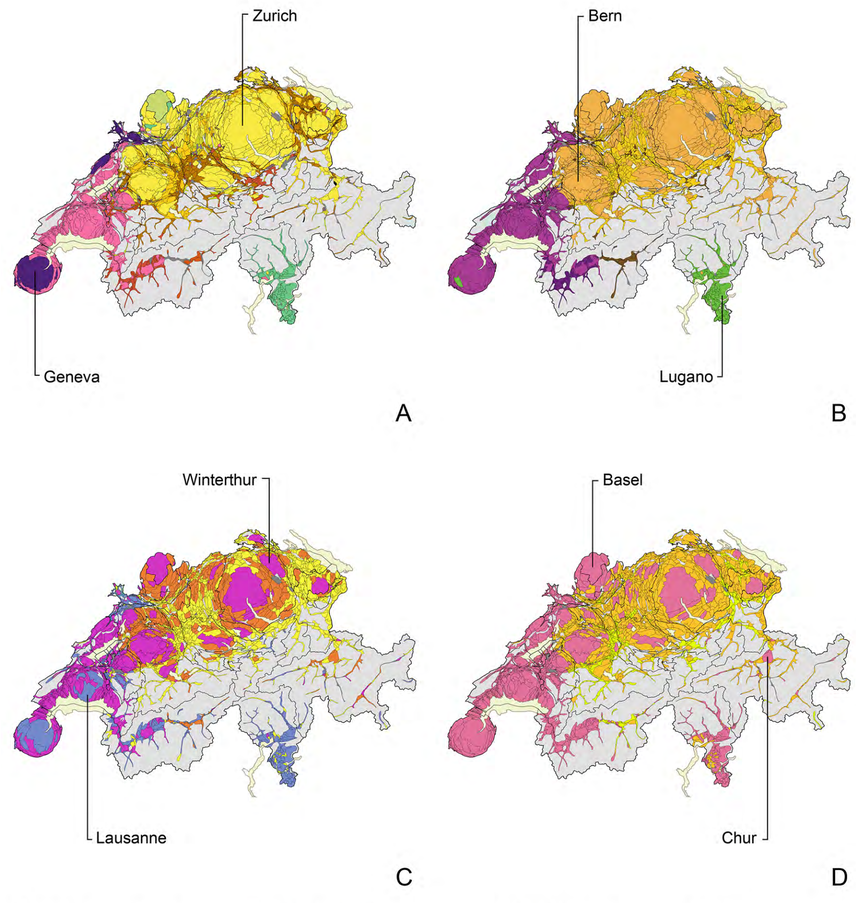
“The geographic evolution of political cleavages in Switzerland: A network approach to assessing levels and dynamics of polarization between local populations”

in PLOS ONE (2018)





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Residing population | Political community | Other sufaces | Borders

- 300 federal votes since 1981
- 3200 municipal populations
- All aspects of political life:
  - security, environment, health, economy, social equality, immigration, etc.

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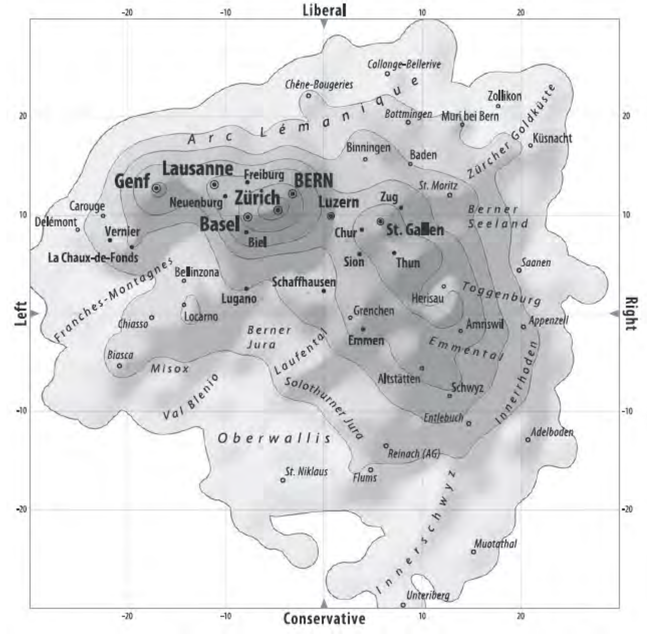
A New Analytical Method
Goals

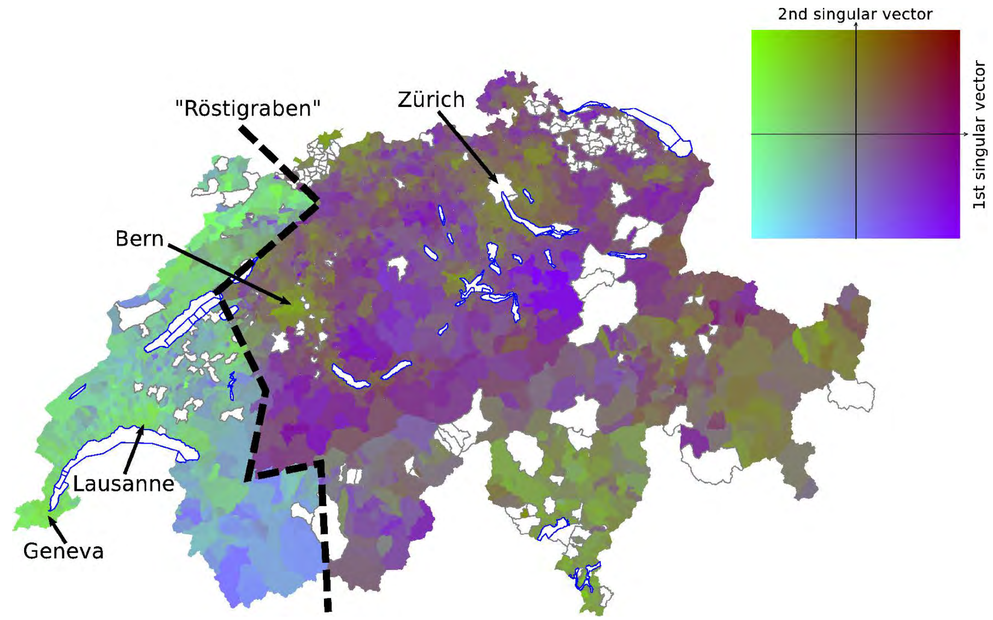
- Dynamic analysis

- Robust measures

- Interoperable results / method



Swiss municipalities political landscape, Leuthold & Hermann, 2001



Multivariate analysis of vote results, Etter et al. 2014

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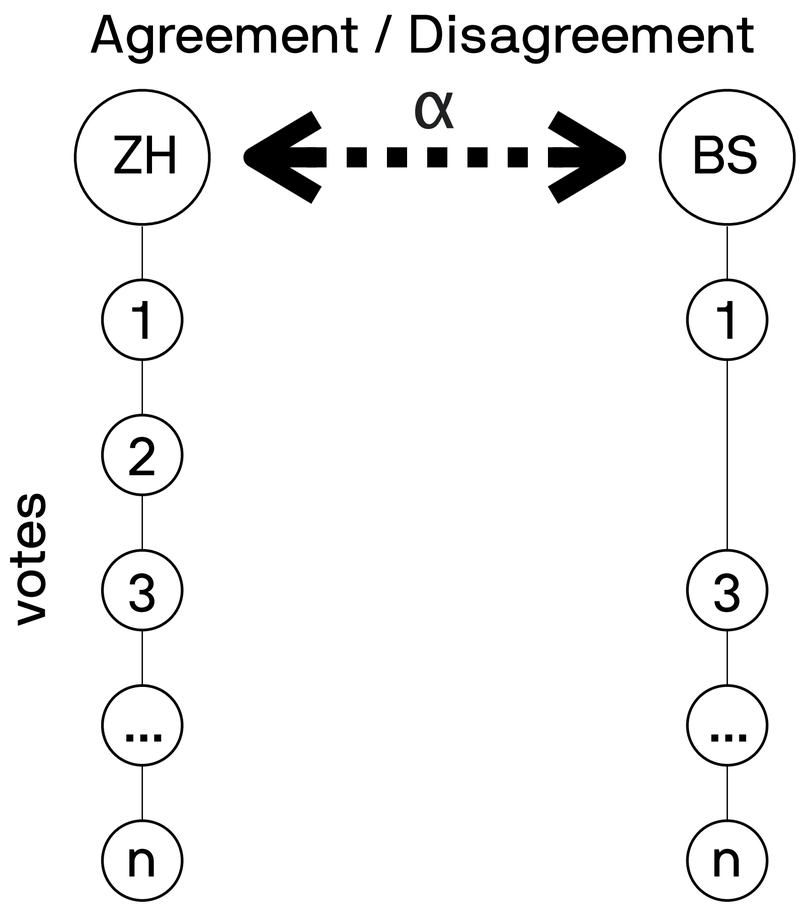
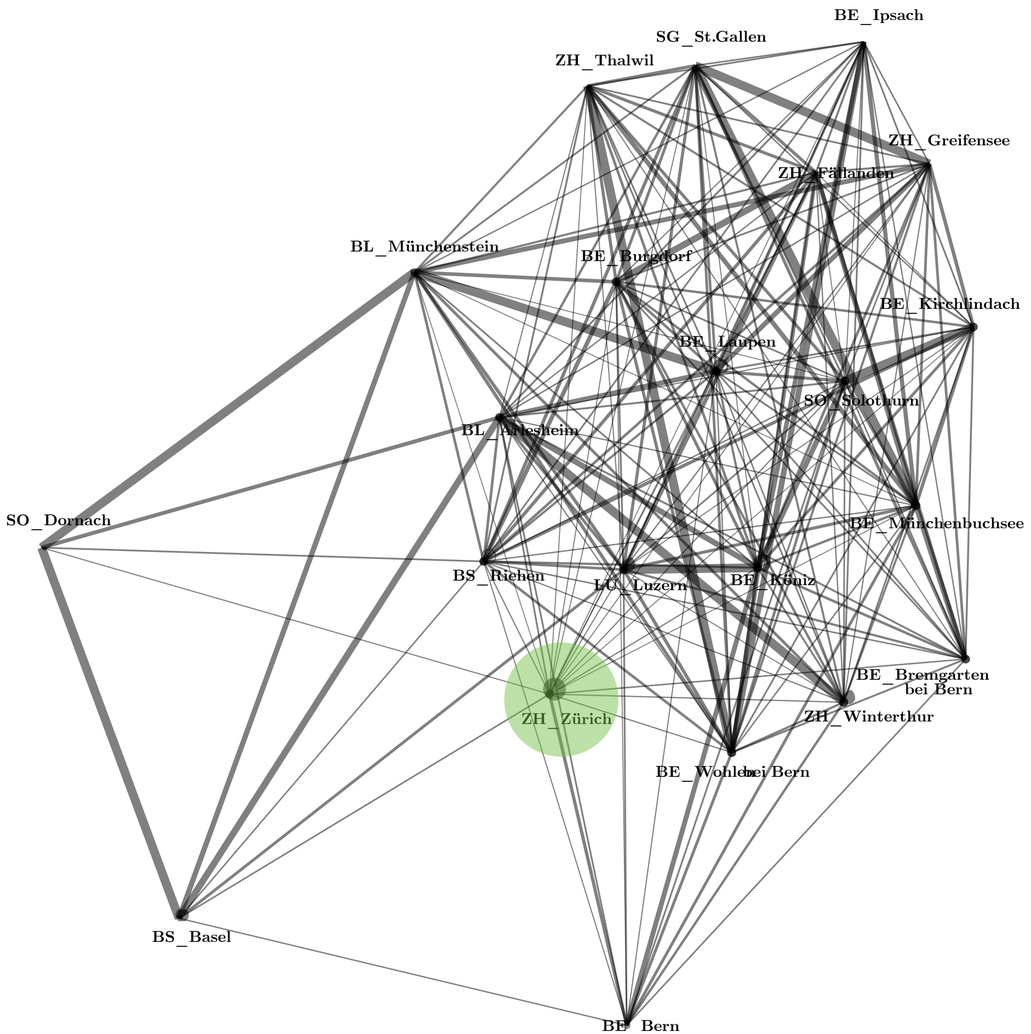
Dyadic Agreement Modeling
Principle





Zurich's egocentric political network — S. Koseki 2017

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Dyadic Agreement Modeling
Advantages

- Control for agreement by chance
- Expresses agreement AND disagreement
- Value space from -1 to 0 to 1
- Internal measure of reliance
- Accepts missing data
- Stable across number of observers and objects

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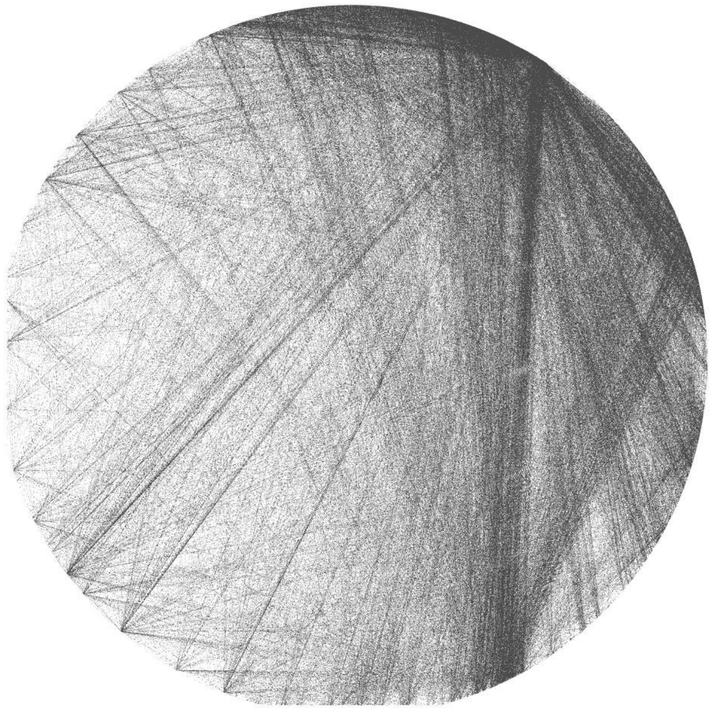
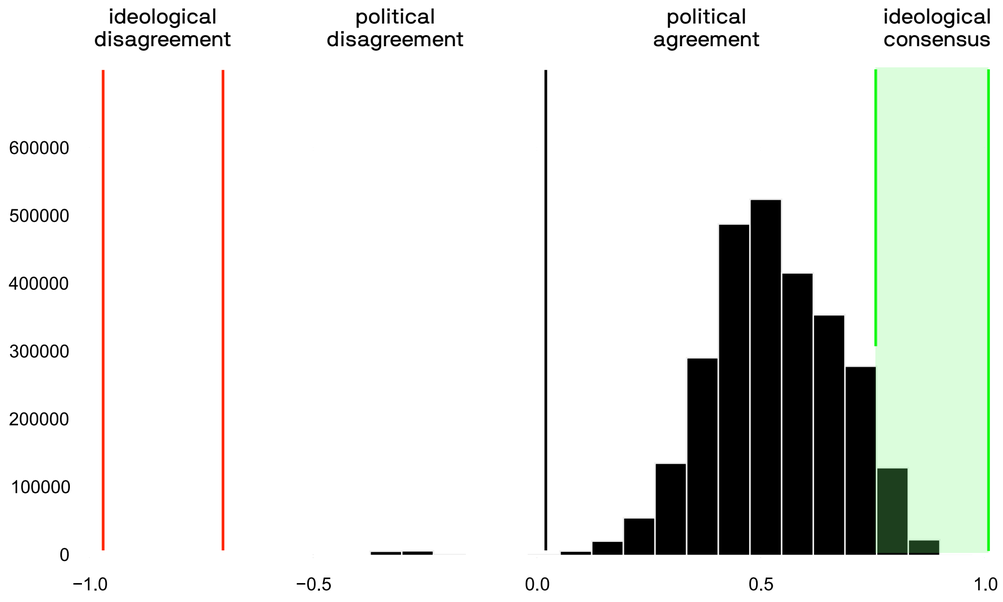


Full agreement model — S. Koseki, 2017



Agreement/disagreement scores — S. Koseki, 2017

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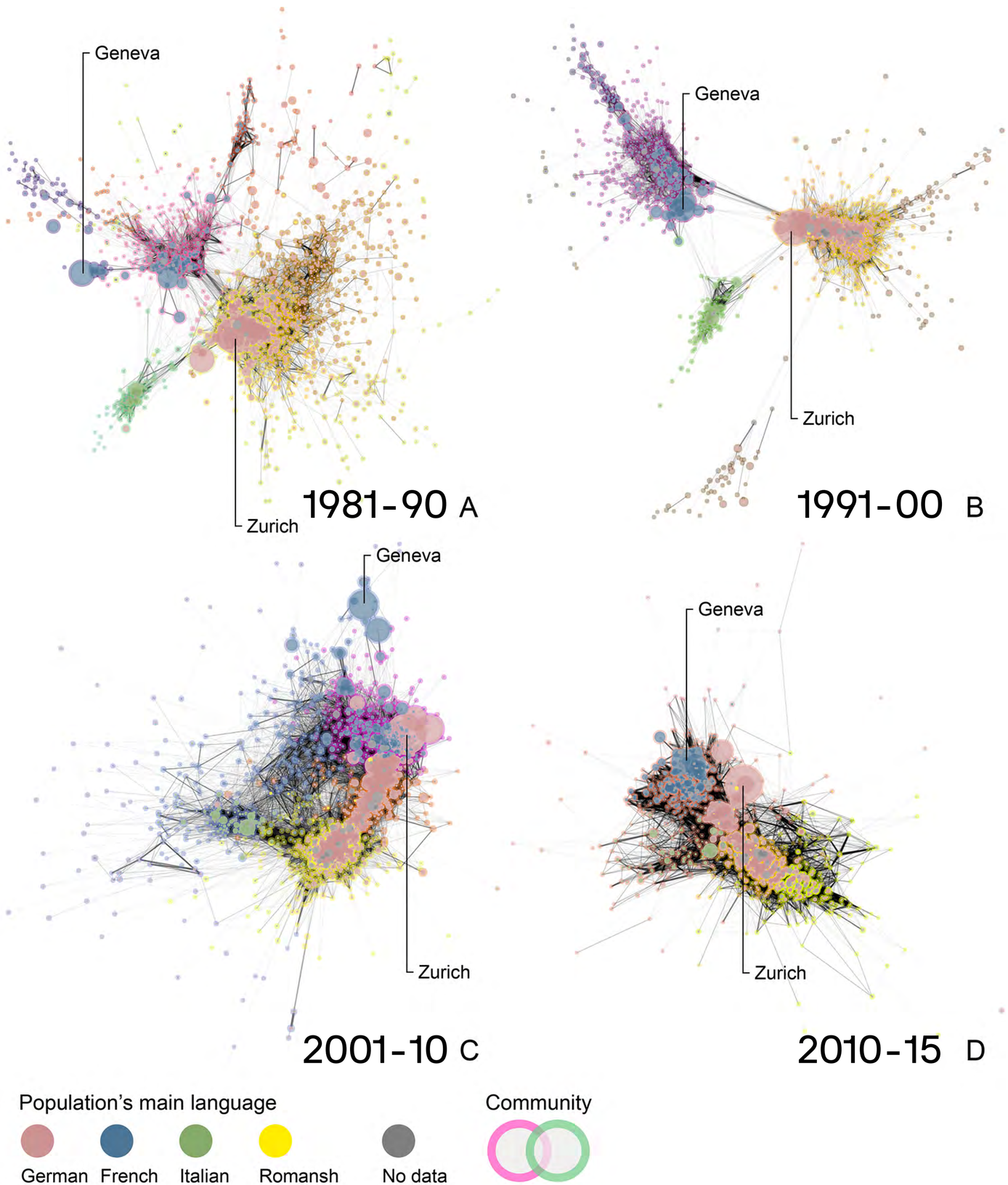

Agreement networks — S. Koseki, 2018

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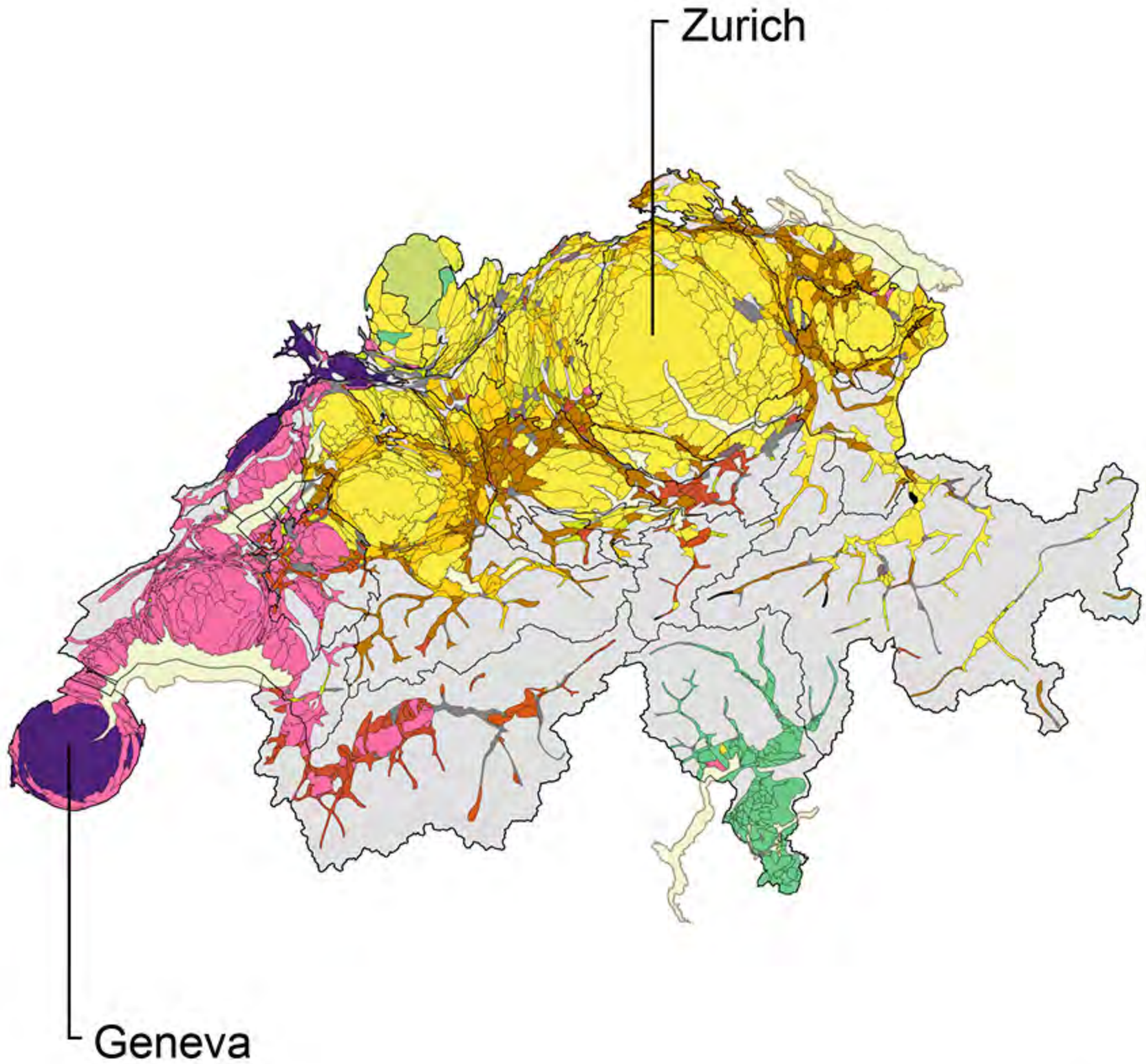

1981-90 A

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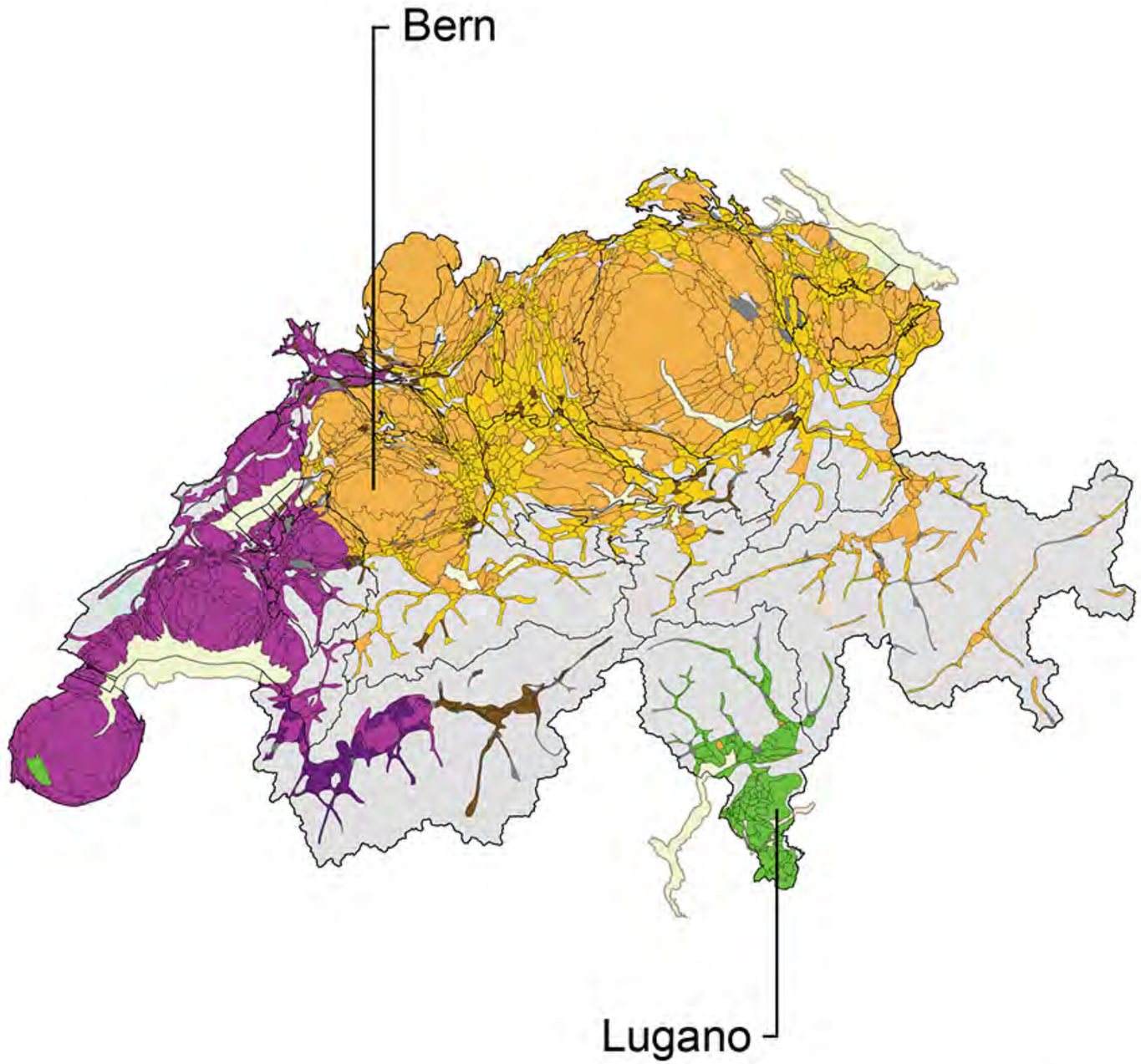

1991-00 B

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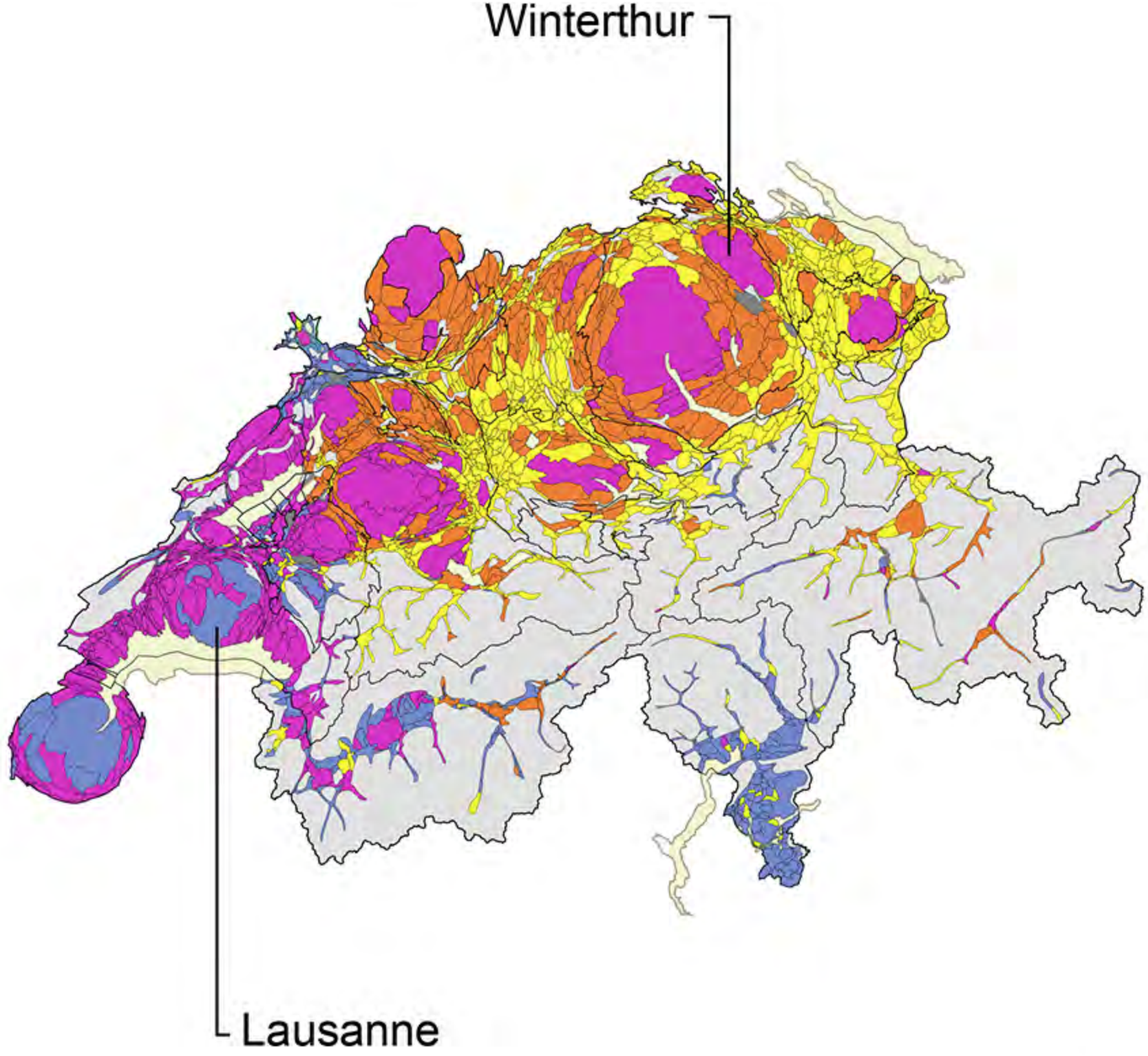

2001-10 C

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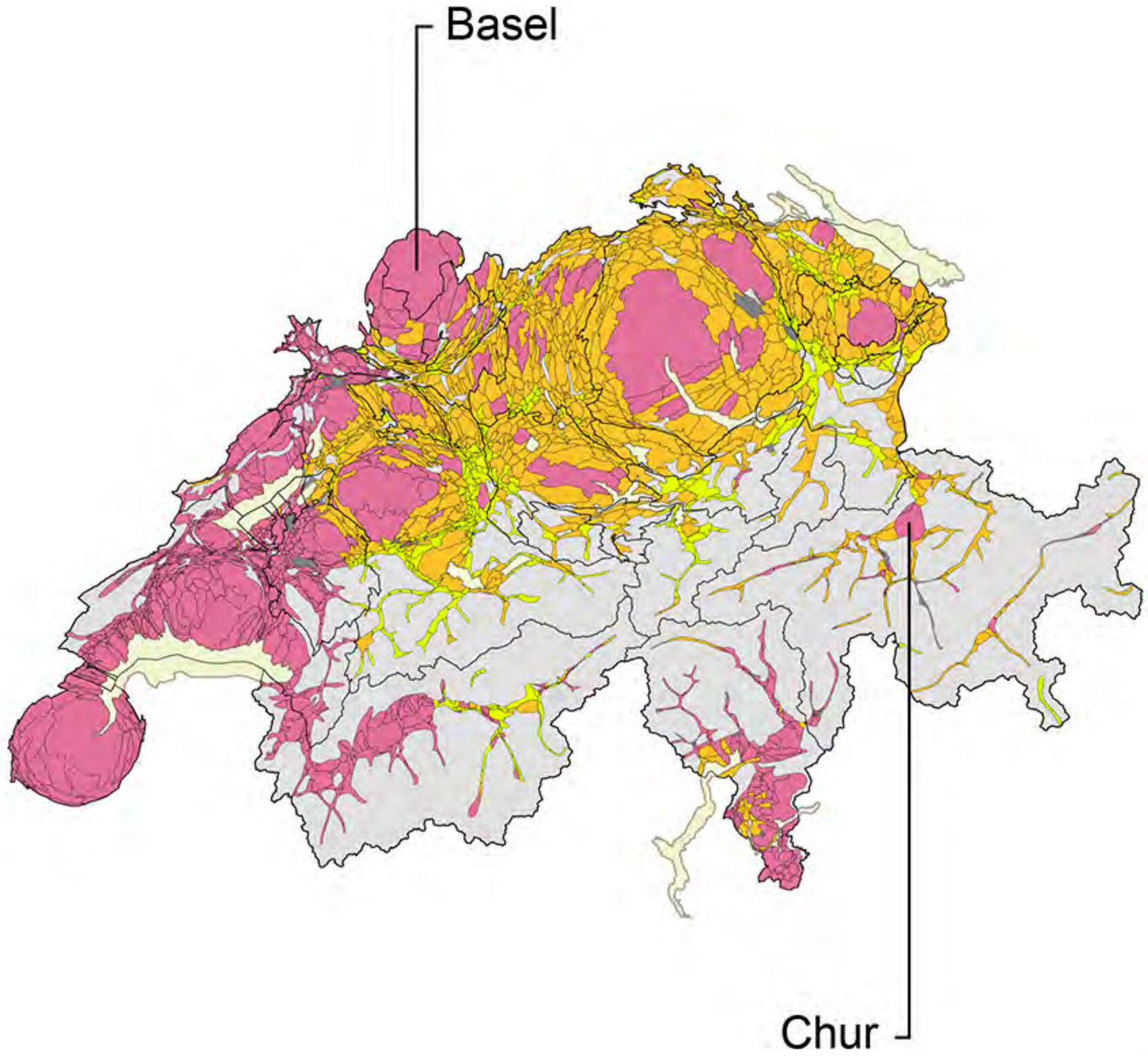

2010-15 D

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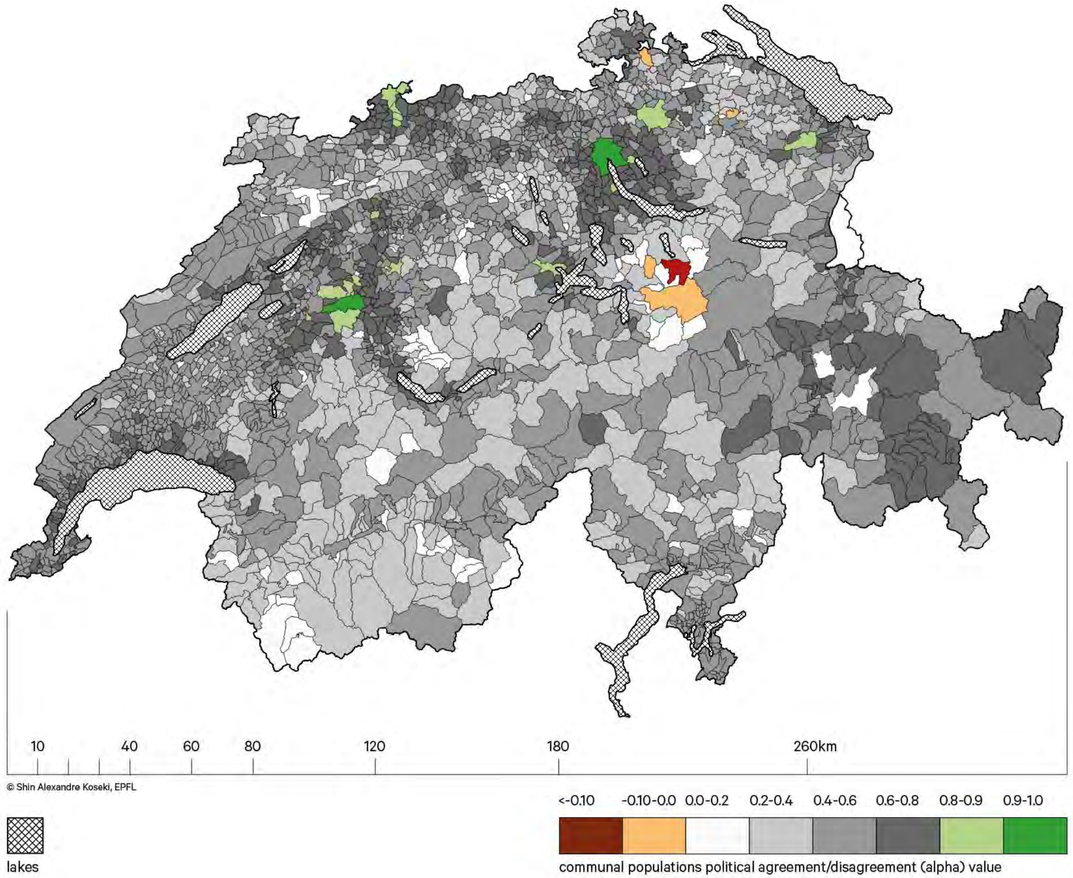
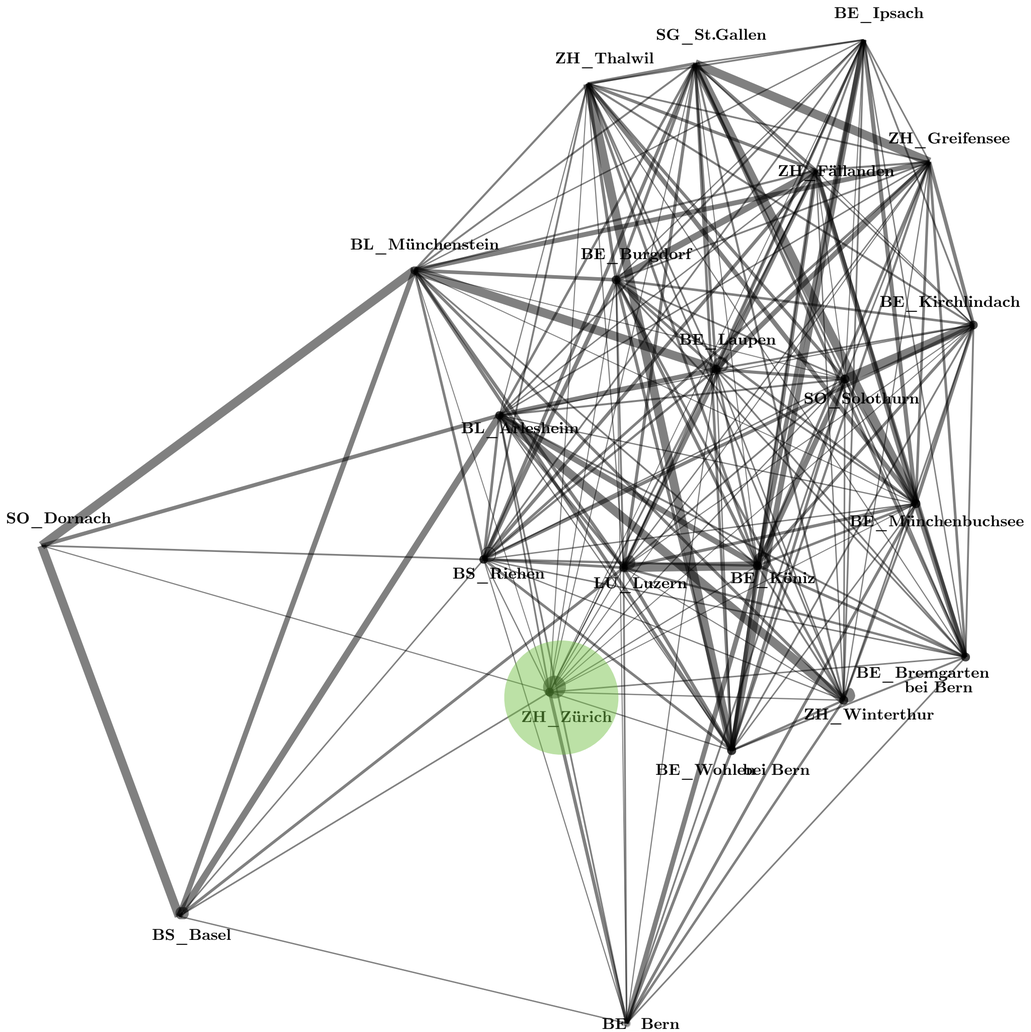


Zurich's egocentric political map — S. Koseki 2017



Zurich's egocentric political network — S. Koseki 2017

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Zurich, Switzerland — C. Schwartz

Muotathal, Switzerland — © Stoos-Muotathal

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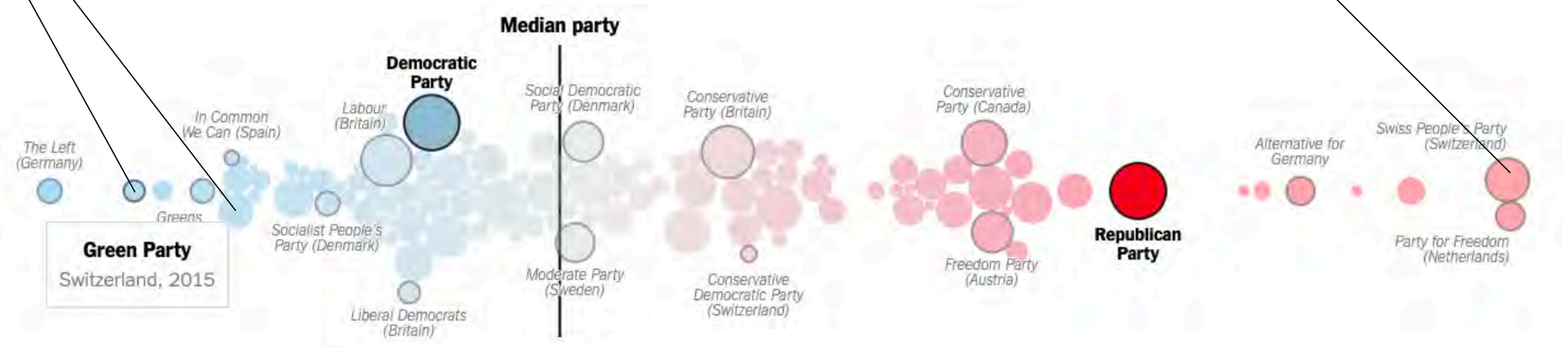
Zurich, Switzerland — C. Schwartz

Muotathal, Switzerland — Stoos-Muotathal



Right-Left Classification of political parties in Western Europe and North America — New York Times, 2019

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Summary

How values intersect in urban space?

- Three factors
  Urbanisation, Globalization & Distribution

- Three mechanisms
  Copresence, mobility, telecommunication

- Values produce urban design and planning projets
  eg. Modernism & Contemporary

- Many form of values
  eg. economical, social and political

- Increasing political divide alongside urban / rural contexts

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Anti-racism protests in Montreal, Canada – Ying Ge

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How design can empower inhabitants?

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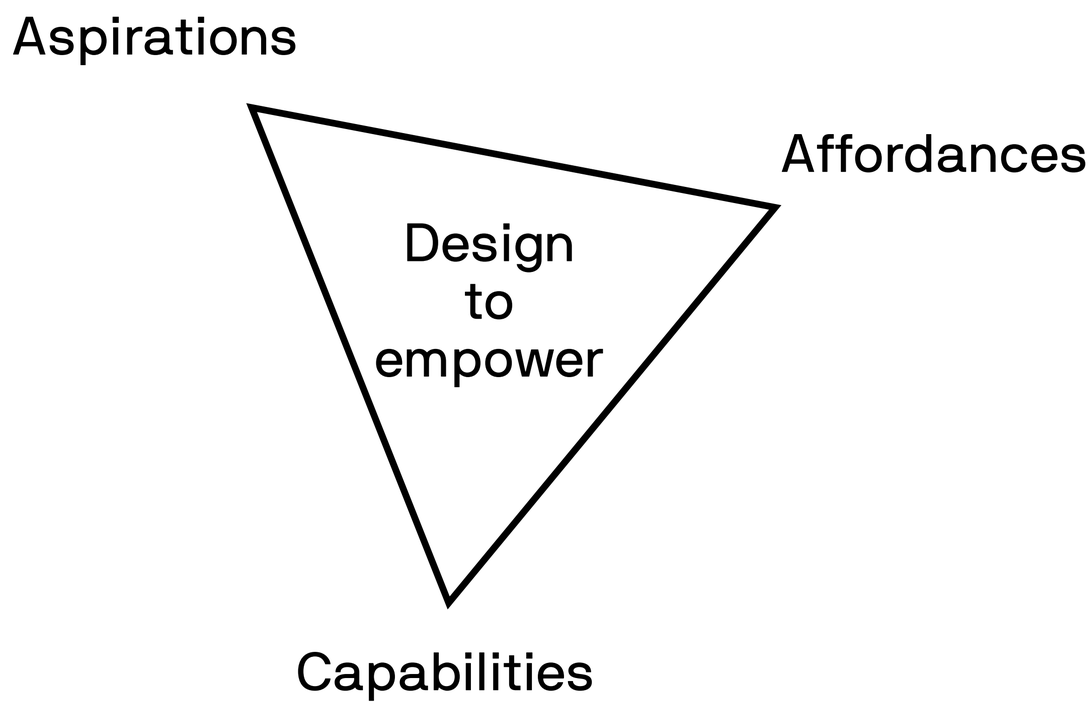

Triadic model of agency — S. Koseki, 2019

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Citizen Science

Participants for Public Space Public Life fieldwork — S. Koseki

Montreal 2042: Ecostructure — BSc. Architecture studio, Université de Montréal

Members of the French Citizen Convention for Climate, Paris

Interactive democracy

Transdisciplinary design

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Shin Alexandre Koseki
PhD MArch

Chôros Paris
Lausanne Center for Digital Humanities
EPFL Habitat Research Center

shinkoseki.com

@sjinko

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