Bauhaus-Universität Weimar

Spatial Information Systems

Advanced basics of geographic information systems

Exercise WiSe 2024/25

(Course notes for internal use only!)

Bauhaus-
Universität
Weimar

Exercise 4

(1) Summary Exercise 3

(2) Exercise 4 (task and workflow)

(1) Summary Exercise 3

Sum of exercise 3

- Most Submissions were complete and in time (group 12 & 13 ?)
- Part 1:
  - Rule based visualization, spatial data analysis and attribute query were mostly good.
  - But map layout was mainly bad 😐

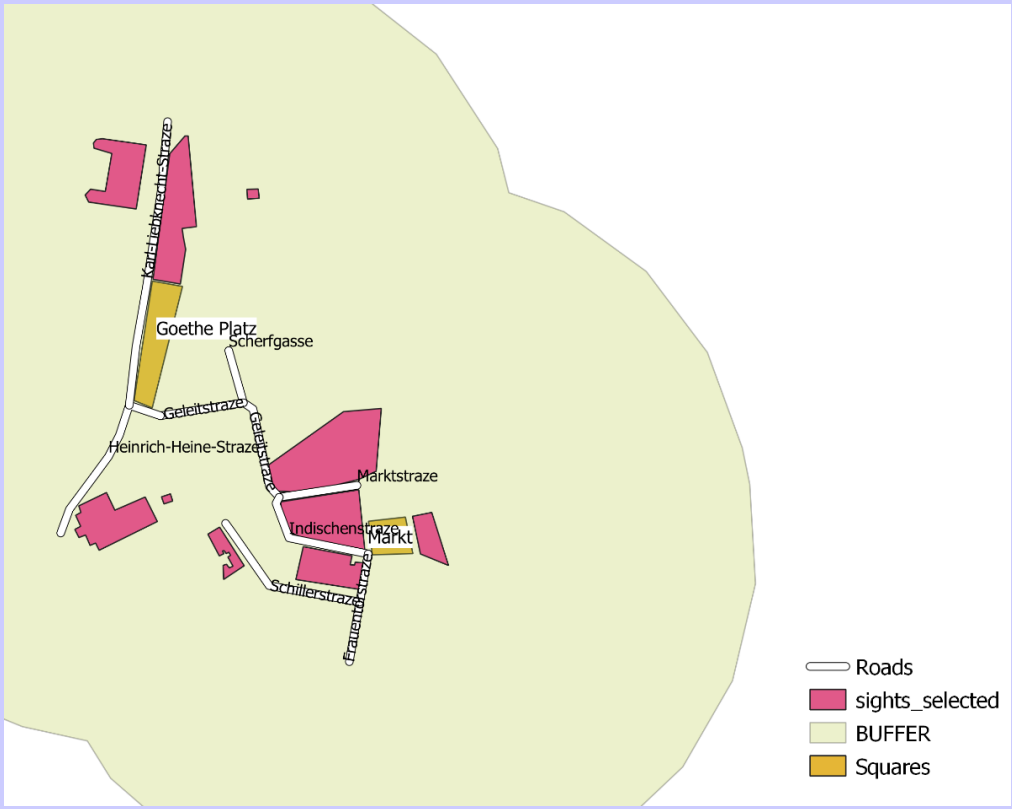
    → Maps were requested, this includes title, scale, north arrow, legend, … These are significant contents of a map.
- Part 2:
  - Name the reference of shown images/background maps,
  - Enhance quality of your map layout (see above),
  - Use the different possibilities to improve your labeling
  - Check coordinate system

Sum of exercise 3

Part 1a: Rule based Visualization

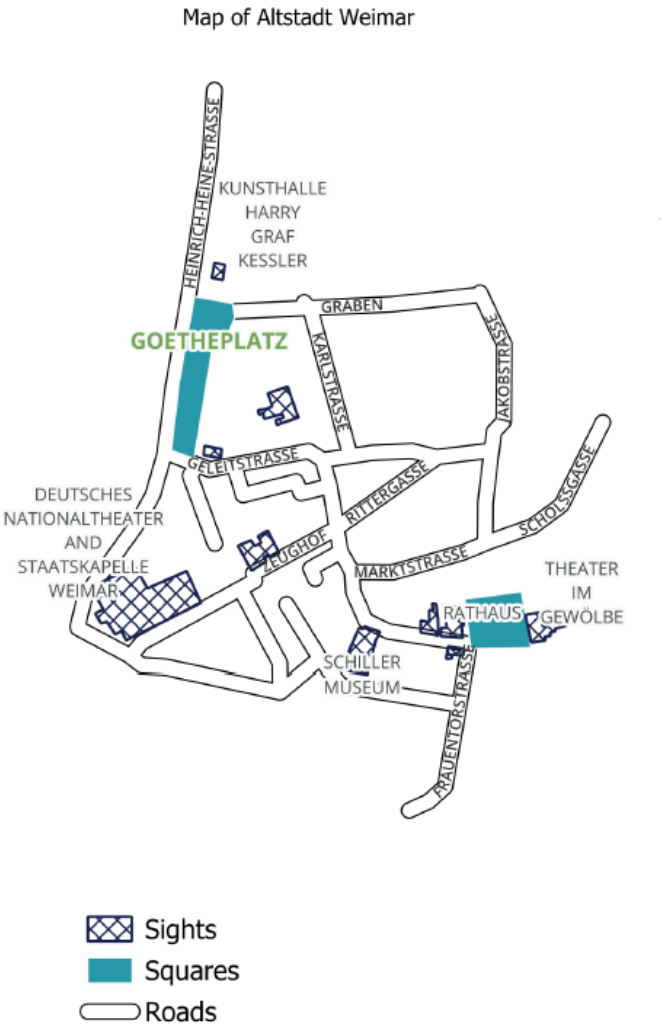
Interior?

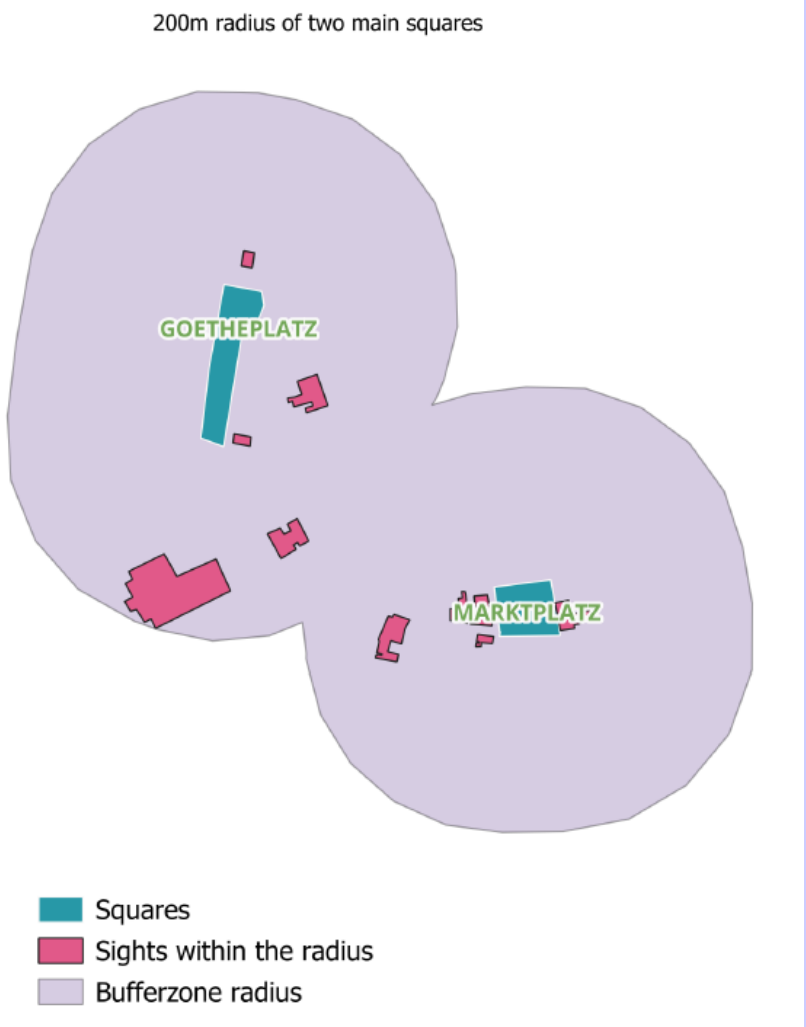
Part 1c: Spatial data analysis and attribute query



monument?

Sum of exercise 3

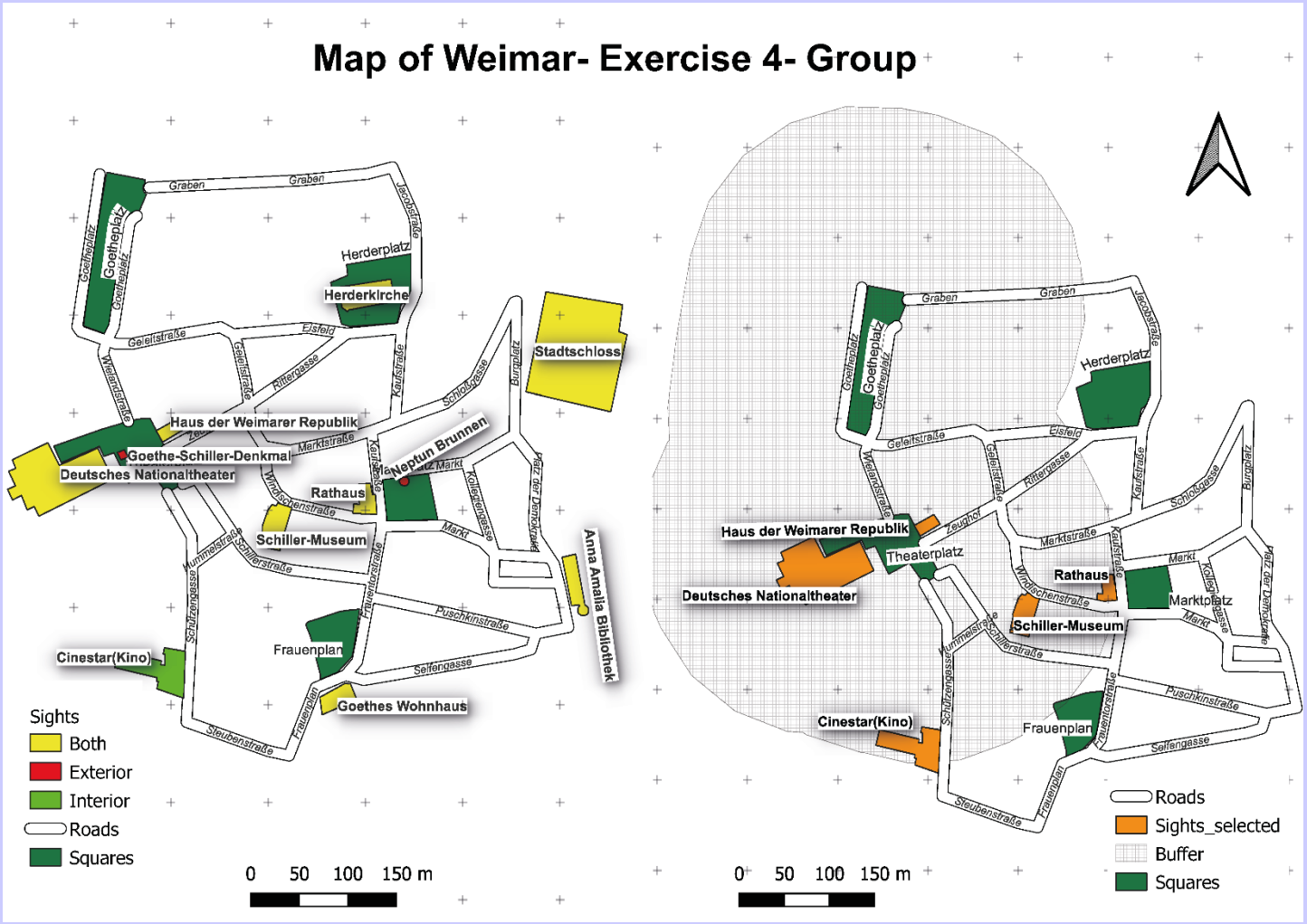




No evaluation possible!

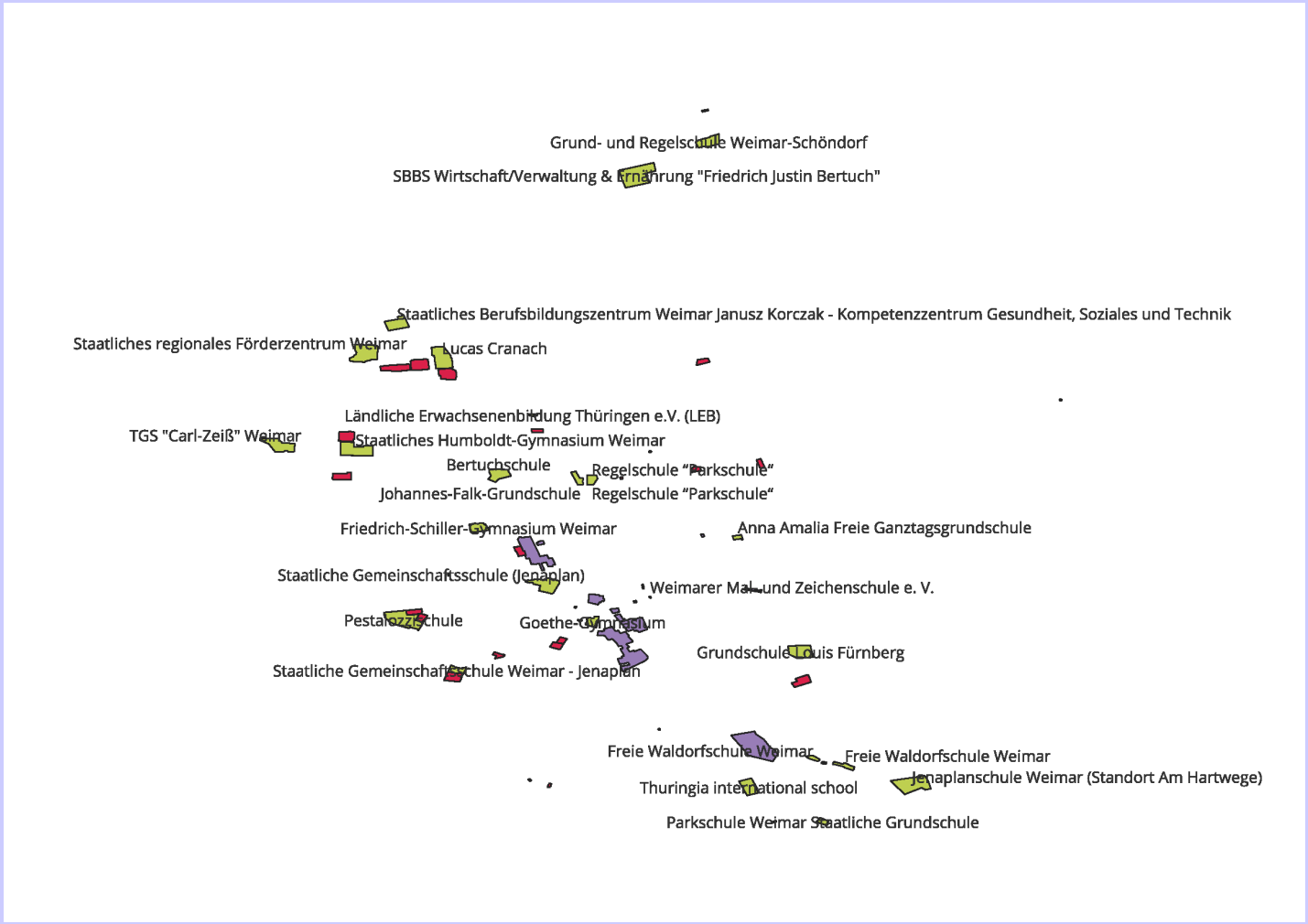
Sum of exercise 3

Part 1: Rule based Visualization, Spatial data analysis and attribute query ✓



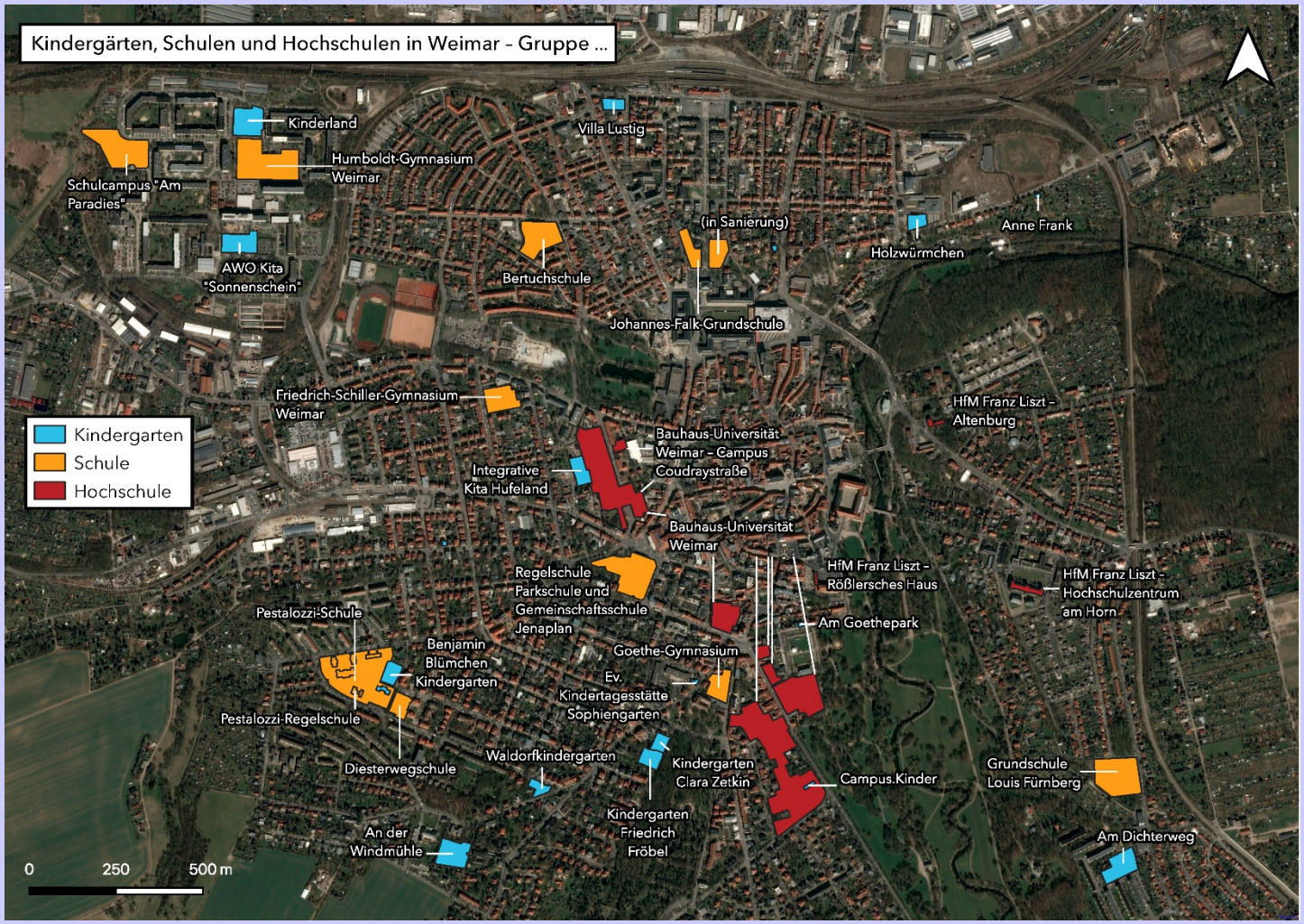
Sum of exercise 3

Part 2: Free Geo-data



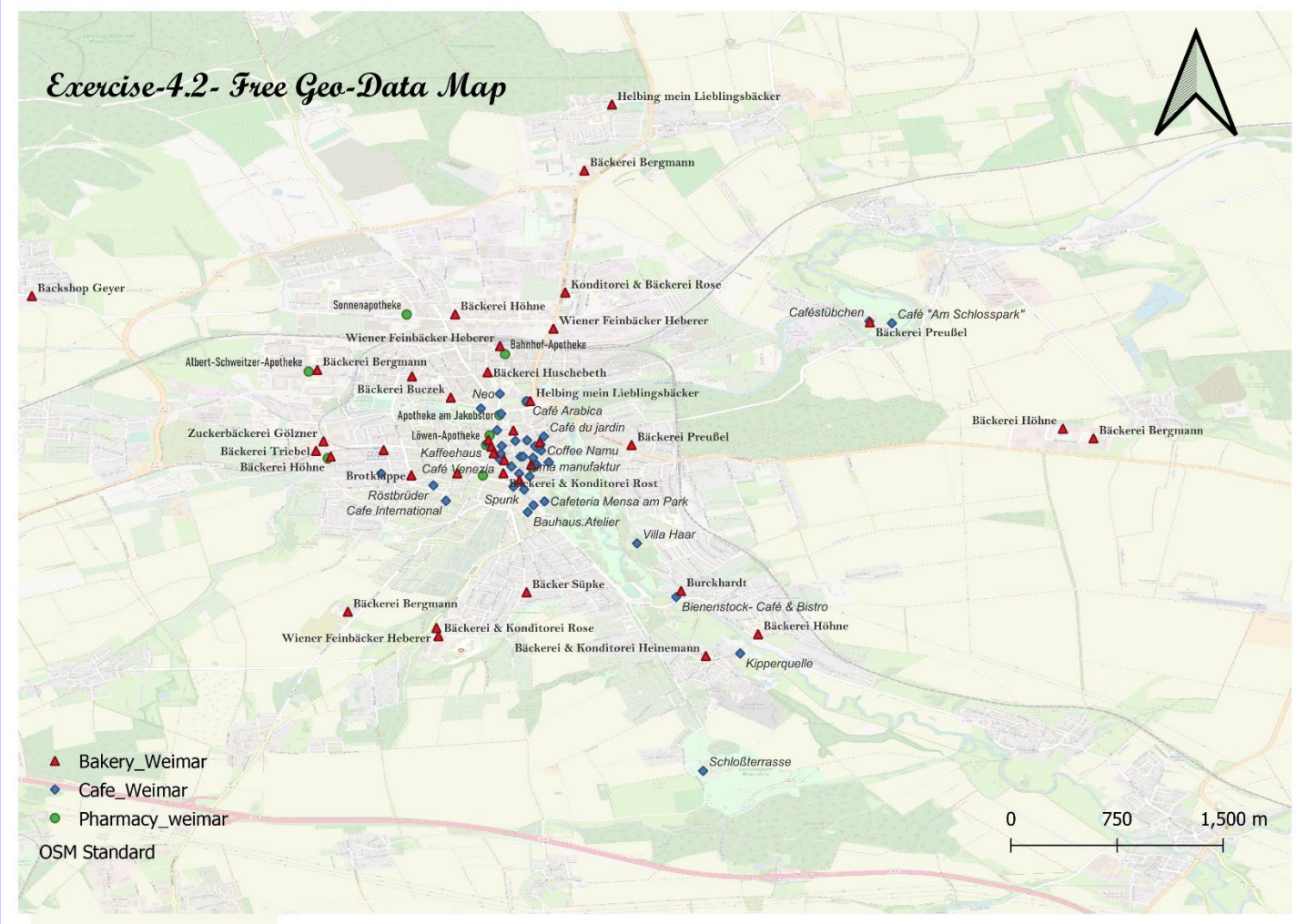
Sum of exercise 3

Part 2: Free Geo-data



Sum of exercise 3

Part 2: Free Geo-data



(2) Exercise 4 (task and workflow)

Task of exercise 4

Transfer of a statistic into thematic maps

The goal is to create a thematic map of Weimar based on current statistical data.

A statistic is not provided, so each group must obtain a current data base itself (at least five sets of values).
Offer: Statistical yearbook of Weimar 2023
https://stadt.weimar.de/de/jahrbuecher.html/

As topographic basis a vectorized base map with 21 statistical regions of Weimar is provided.

Workflow of exercise 4

a) Look for a interesting statistic which includes at least five sets of values.

b) Start QGIS with a new project and import the statistical regions of Weimar.

c) Create new attributes for each set of values and enter the statistical data (open attribute table → start editing mode → new field or field calculator)

d) Realize three different representation methods:
   - 3 values per diagram (Properties → Diagrams)
   - different diagram sizes (Properties → Diagrams → Size)
   - different colors of the regions (Properties → Symbology → Graduated).

   Use reasonable datasets for every representation!

e) Submit one designed map sheet with a significant title as PDF document. The topic should be fancy and the thematic representation should be clear and informative. The meaning of your charts shall be self-explanatory or understandable by a brief explanation (on your map).

Thank you!

questions?

Merry Christmas!