

### Handout 3: Drawing and Styling a Base Map

In the previous handouts, you discovered various research tools in the REDE SprachGIS. Before creating thematic maps in the SprachGIS later today, this unit introduces the Style Editor and the drawing tools. You will practice creating a base map, applying research skills from earlier sessions.

#### Exercise 1: Creating a Base Map for Northern Italy

You will create a general base map for Northern Italy, used in future thematic mapping sessions.

##### Step 1: Create Layer Group

- Click plus icon  in layer manager, select `Empty layer group`, name it “BaseMap\_NorthernItaly”. Confirm.
-  A layer group is automatically a user group.

##### Step 2: Load Political Elements: Regions

- Click plus icon, select `Empty vector layer`, name the new vector layer “NorthernItaly\_Regions”.
- Save the layer directly as a user map.
- Use the `Research` tool to search for and load the following regions: Lombardia, Veneto, Trentino-Alto Adige, Valle d’Aosta, Piemonte, Friuli-Venezia Giulia. Load by clicking the arrow icon  next to each region.
- Save the layer by clicking the save icon .
-  The SprachGIS always indicates unsaved changes. Save regularly!

##### Step 3: Load and Label Cities

- Click plus icon, select `Empty vector layer`, name new vector layer “NorthernItaly\_Cities”.
- Save the layer directly as a user map.
-  For Italy, the SprachGIS only contains the places with Wenker questionnaires. For a base map, however, we are interested mostly in larger cities from all areas. This is why we must add the cities manually.
- Select `Tools > Edit Map Elements > Drawing Tools`. The first tab, `Draw point`, is automatically selected.
- Using `OpenStreetMap` as a base, add important cities by clicking in the map view (e.g., Milan, Venice, Trento, Bologna).
- Close the `Drawing Tools`.
- Save layer as user map.

#### Step 4: Load and Label Rivers and Lakes

- Use the Research tool, set Category to Topographic > Rivers & Lakes. Additionally, only search in certain Map elements, i.e., your layer “NorthernItaly\_Regions” > Alles auswählen > Search.
- Load the lakes in a new layer using the icon .
- Give the layer the name “NorthernItaly\_Topographic” and save it as a user map.
- In the results list, select the three dots for finding the rivers .
- Load the rivers using the icon , select “NorthernItaly\_Topographic” as Existing layer.
- Save the map.

#### Step 5: Combine Maps to Layer Group

- For each map layer, select the three dots > Add to layer group > “BaseMap\_NorthernItaly”.
- To rearrange the map layers in the layer group, simply drag and drop layers.

### Exercise 2: Styling the Map

In the Style Editor, you can change colors, lines, symbols etc. You can also adjust labels (font, size etc.). Styling: Select Tools > Edit Map Elements > Style Editor.

**!** You can add labels manually in the style editor or you can use auto-labelling. E.g., select the map layer “NorthernItaly\_Regions”, right click in the map view > Select all > right click > Labels > Description > Confirm. This will automatically add the name of each region as a label.

#### Step 1: Style Regions

 Task: Style the regions (polygons). You can either style each polygon separately or all together (Alles auswählen). Save the changes you make regularly.

#### Step 2: Style Cities

 Task: Style the cities (points). You can either style each point separately or all together (Alles auswählen). Save the changes you make regularly.

**!** As we added the cities manually, you must also label them manually.

#### Step 3: Style Rivers and Lakes

 Task: Style the rivers (lines) and the lakes (polygons). You can either style each line separately or all together (Alles auswählen). Save the changes you make regularly.

**!** If you choose Alles auswählen, beware of the different styling possibilities for lines and polygons.