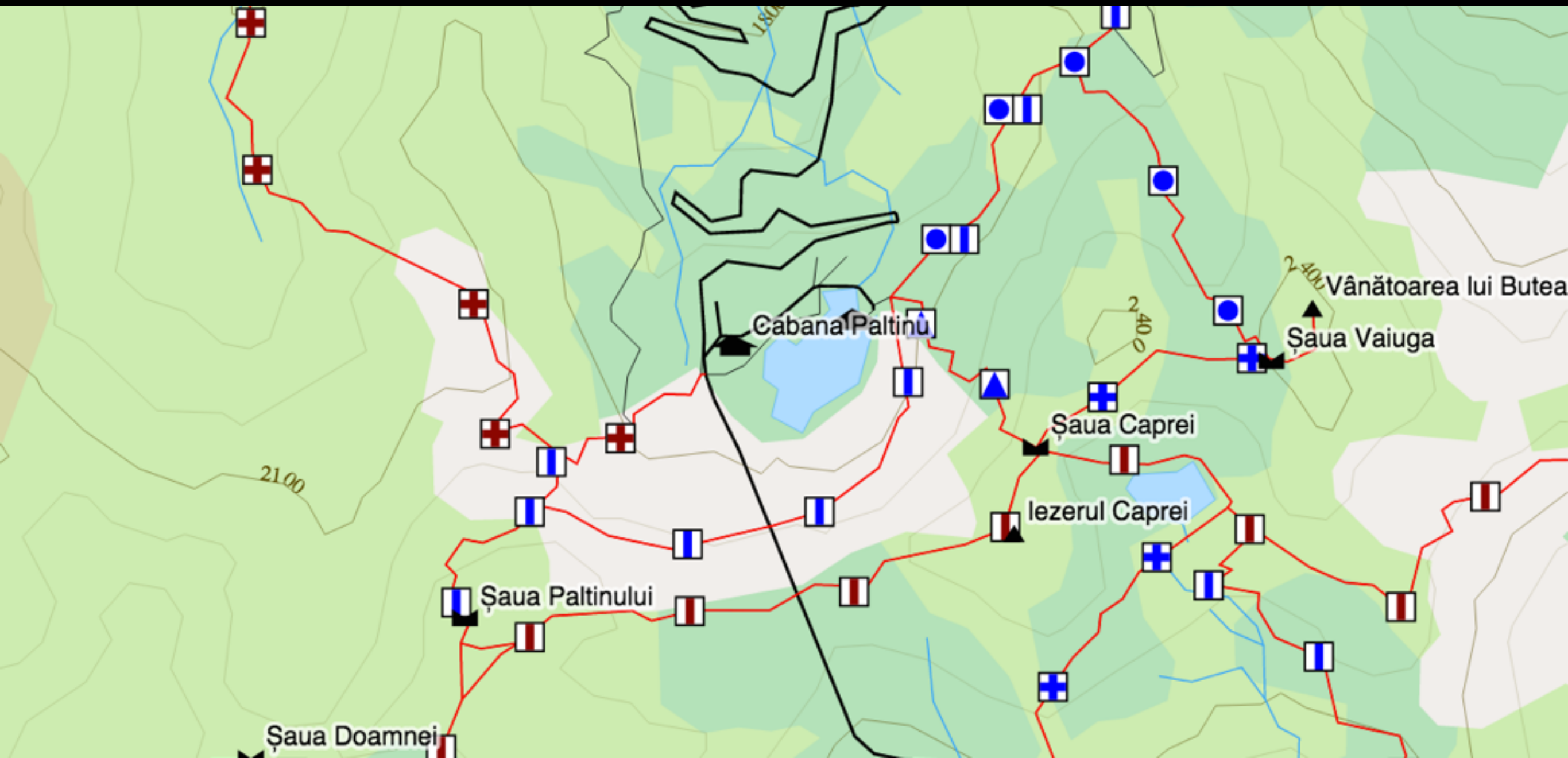


haihui

Hărți montane cu date din OpenStreetMap





Șaua Chirusca

Noi

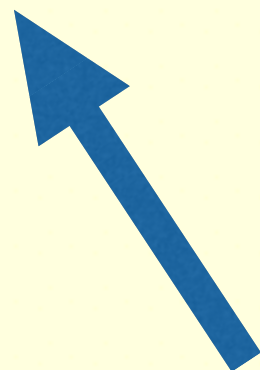


Dilema

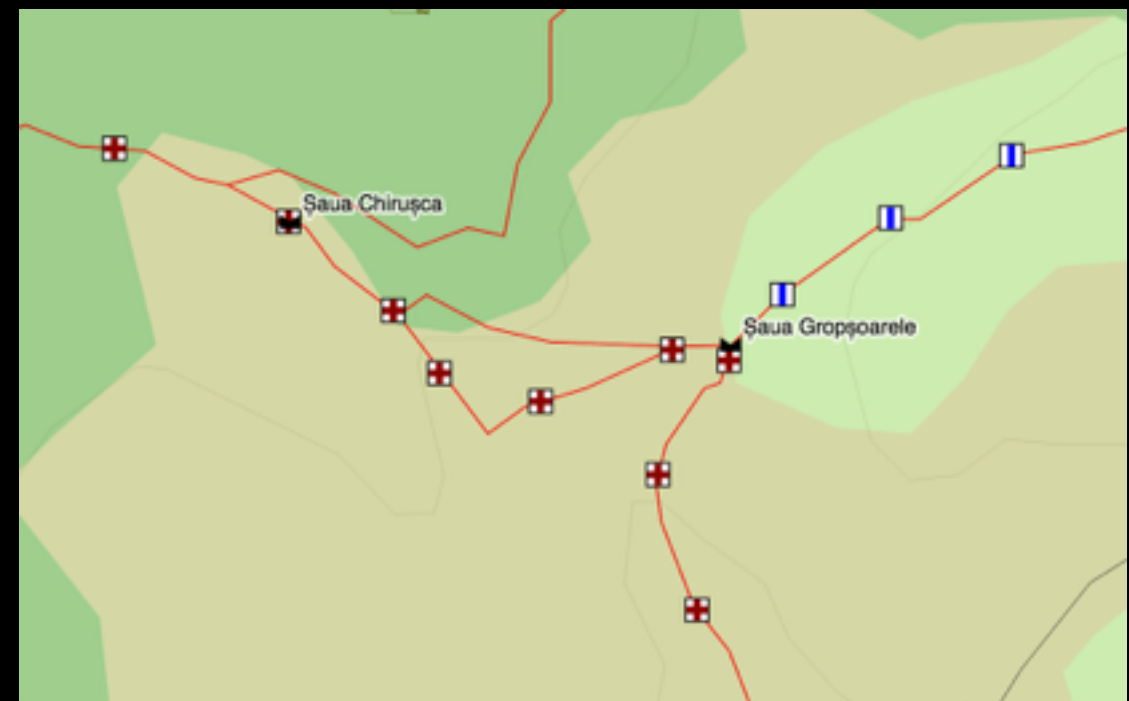
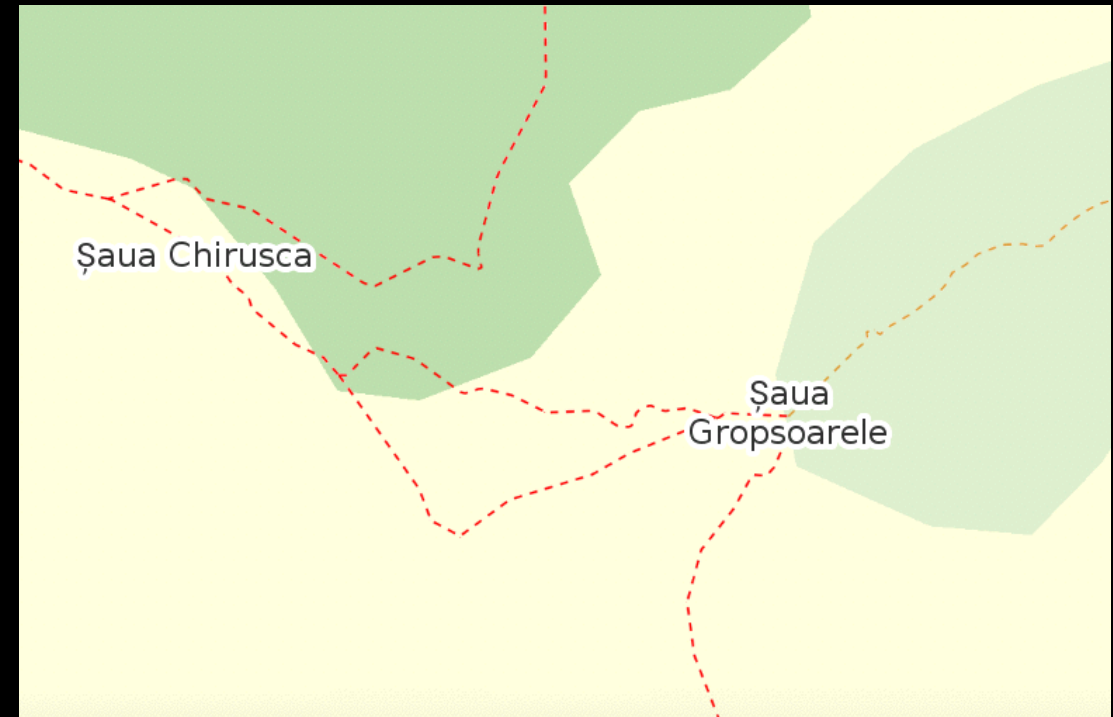


Șaua
Gropsoarele

Traseul



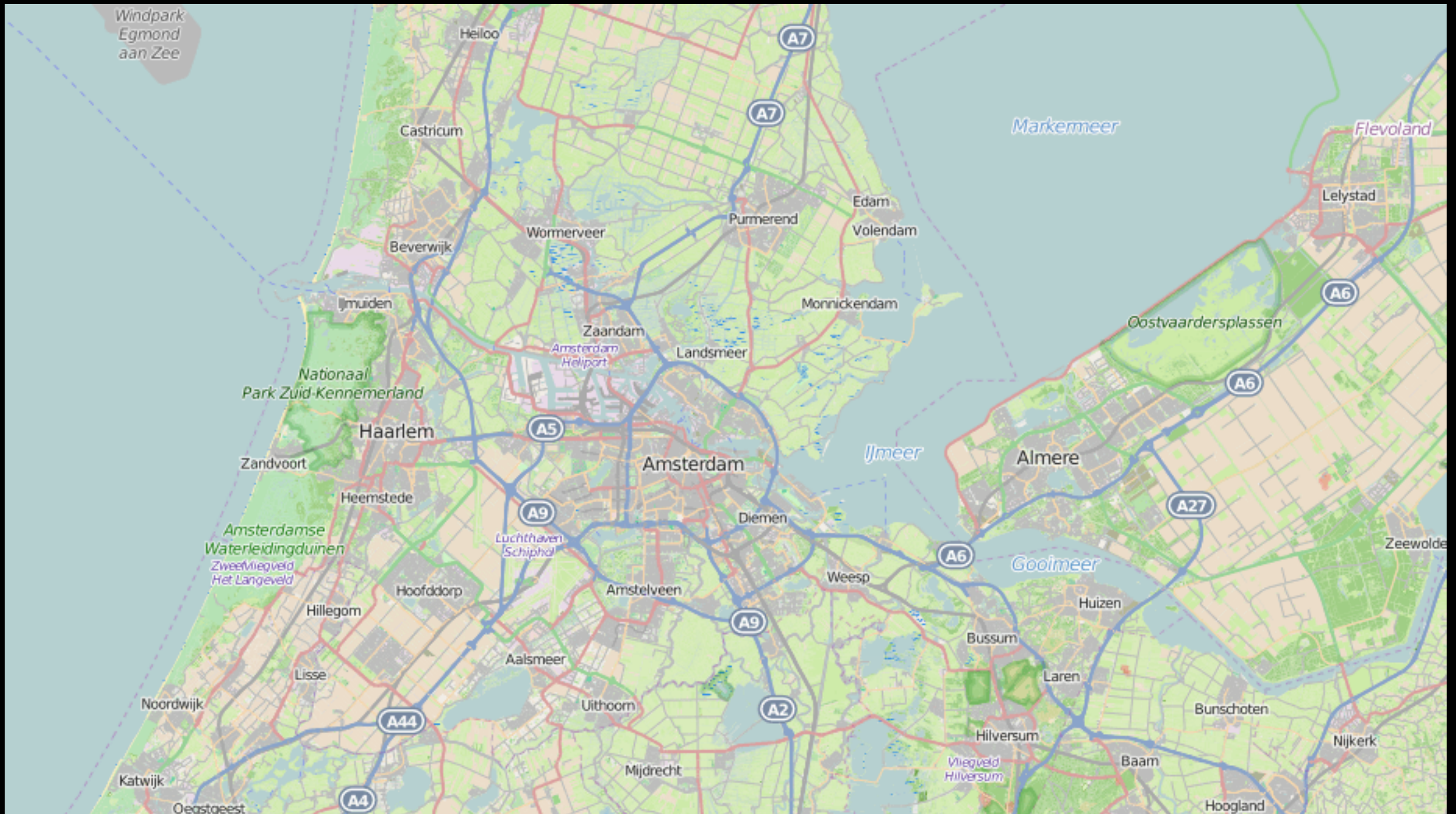
comparație cu alte hărți

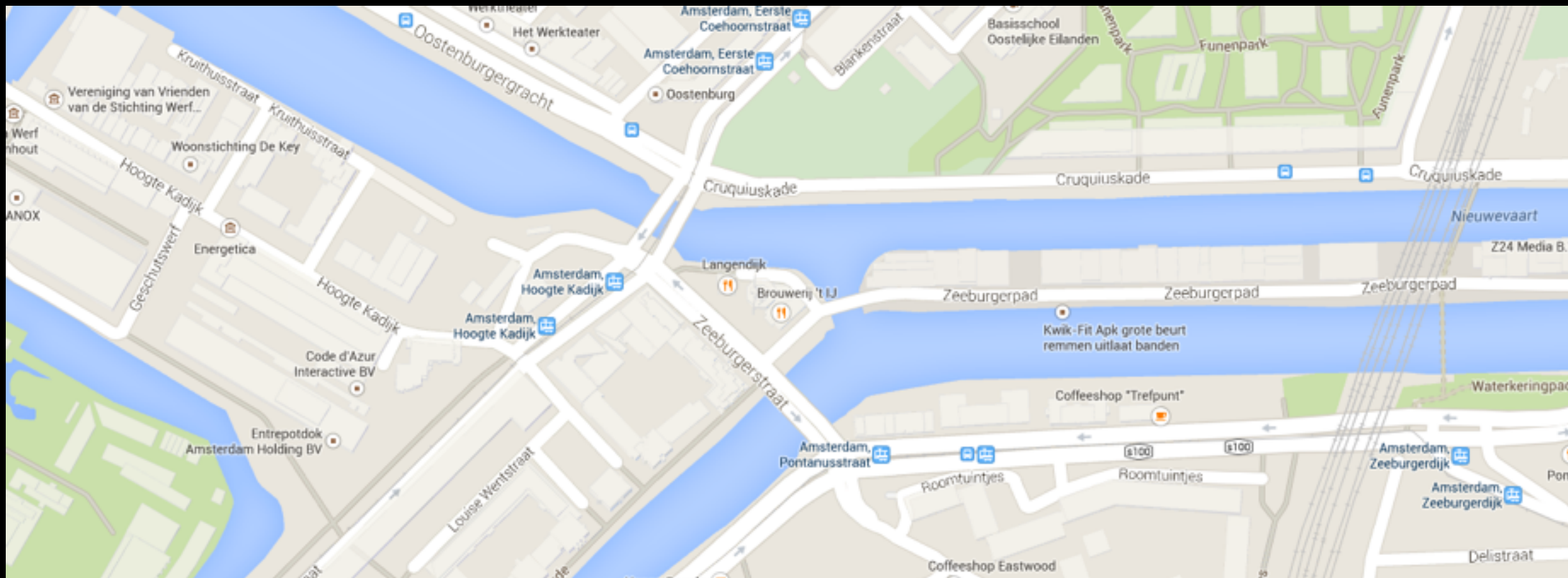


Hartă calumea

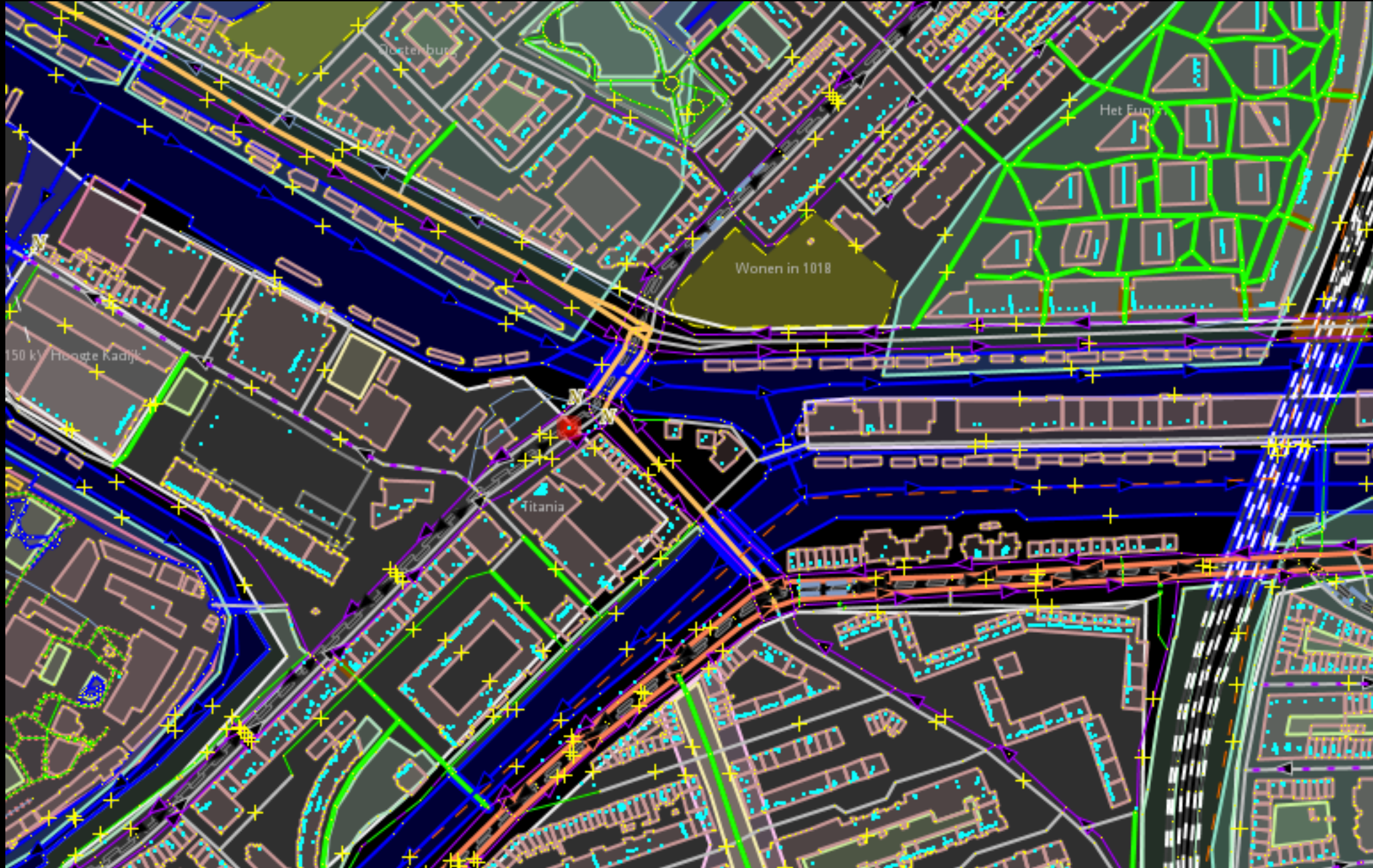
- Trasee, puncte de interes, relief
- Funcționează offline pe mobil
- Ușor de instalat, folosit
- Bulină albastră

OpenStreetMap





OpenStreetMap - data



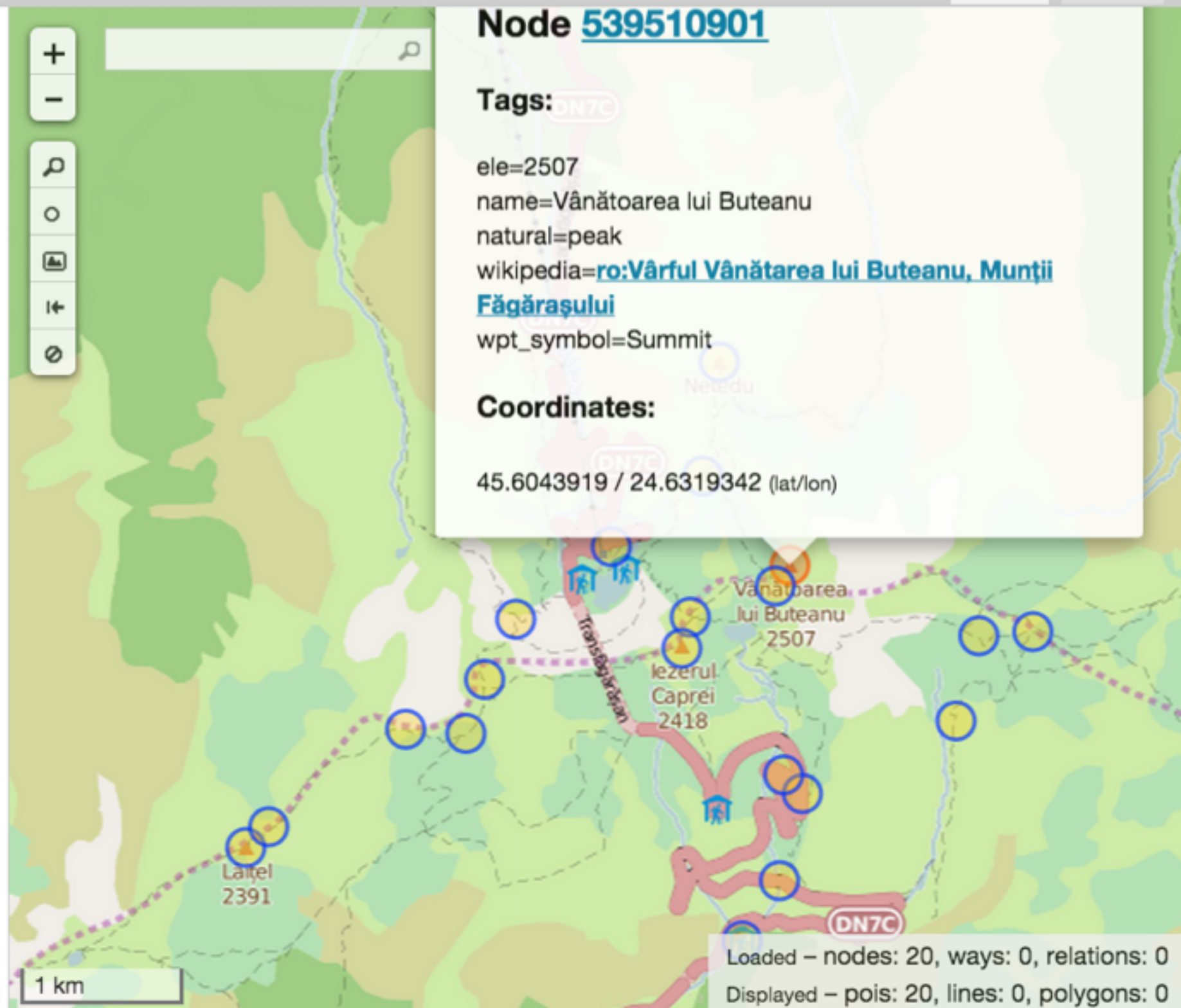
SRTM



Pregătirea datelor

- Query Overpass API
- Altitudine din SRTM
- Filtrare și generat GeoJSON
- Transformat în TopoJSON
- Automatizare!

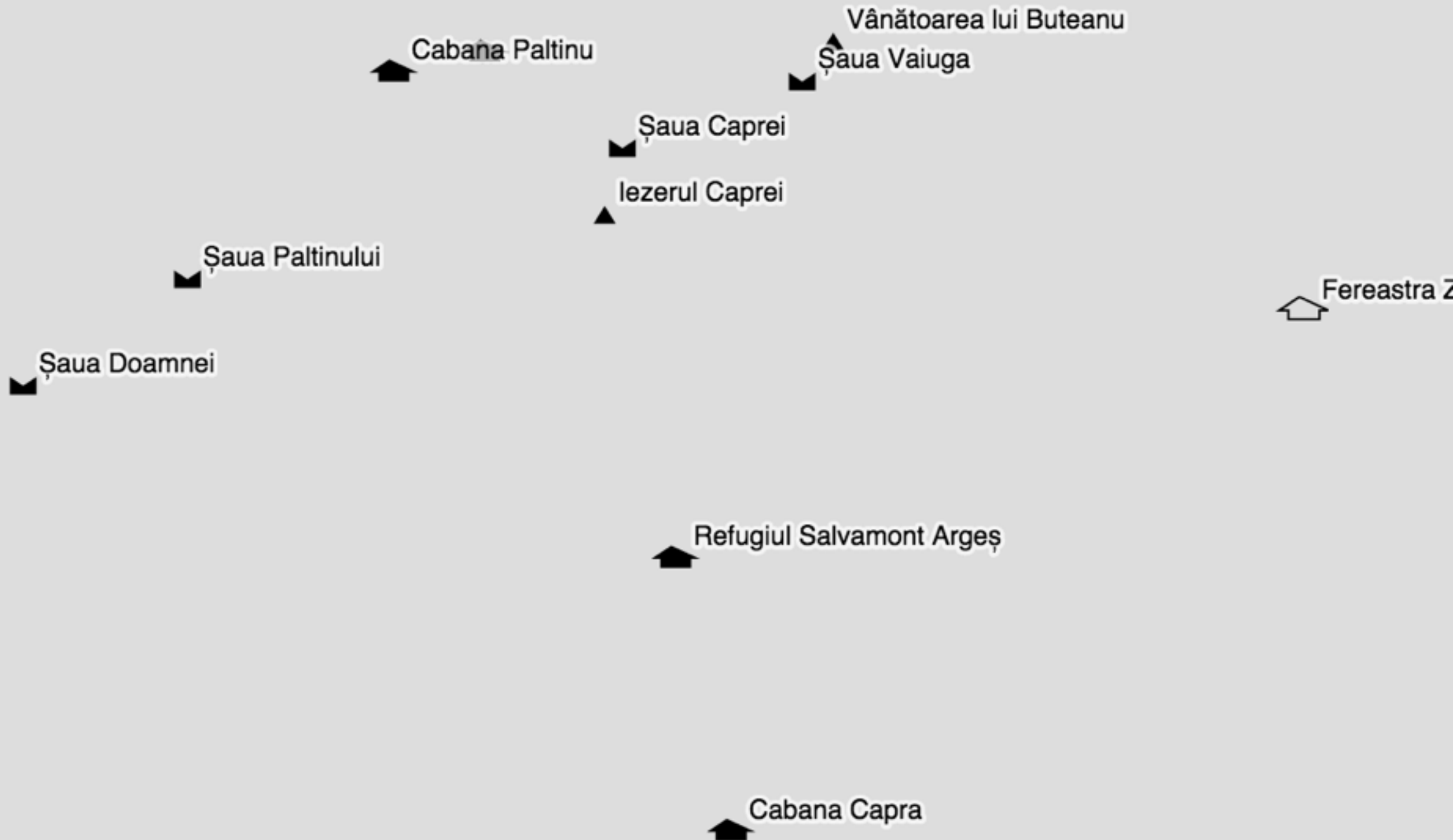

```
1 node
2   [tourism~""]
3   ({{bbox}});
4 out;
5 node
6   [natural~""]
7   ({{bbox}});
8 out;
9
```



puncte:

```
node[tourism~""] ({{bbox}});
```

```
node[natural~""] ({{bbox}});
```



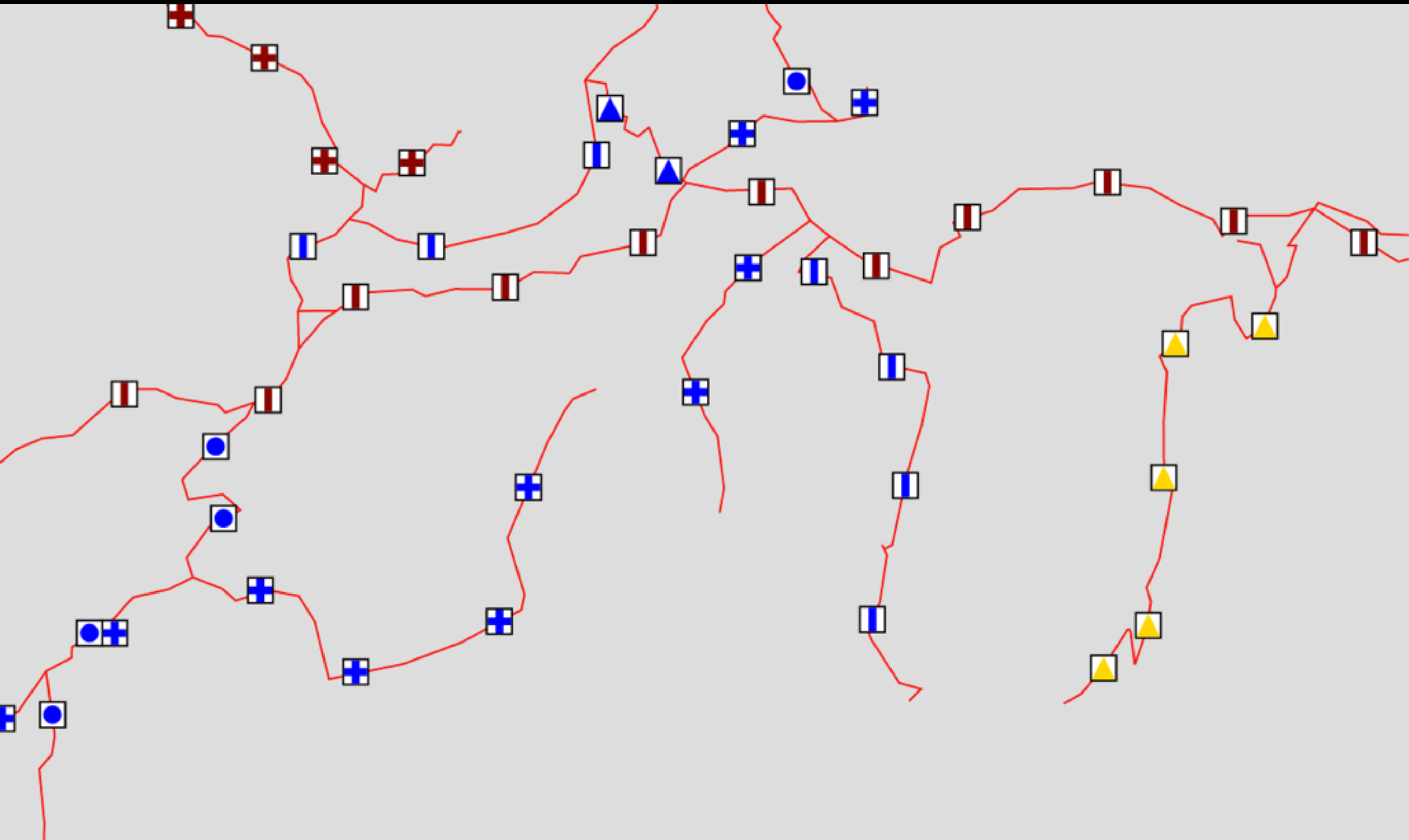

```
drumuri: way["highway"~""]({{bbox}});>;
```



```
trasee: relation["route"="hiking"]  
({{bbox}});>;
```



simboluri de trasee: tag-uri de forma
`osmc:symbol=blue:white:blue_triangle`

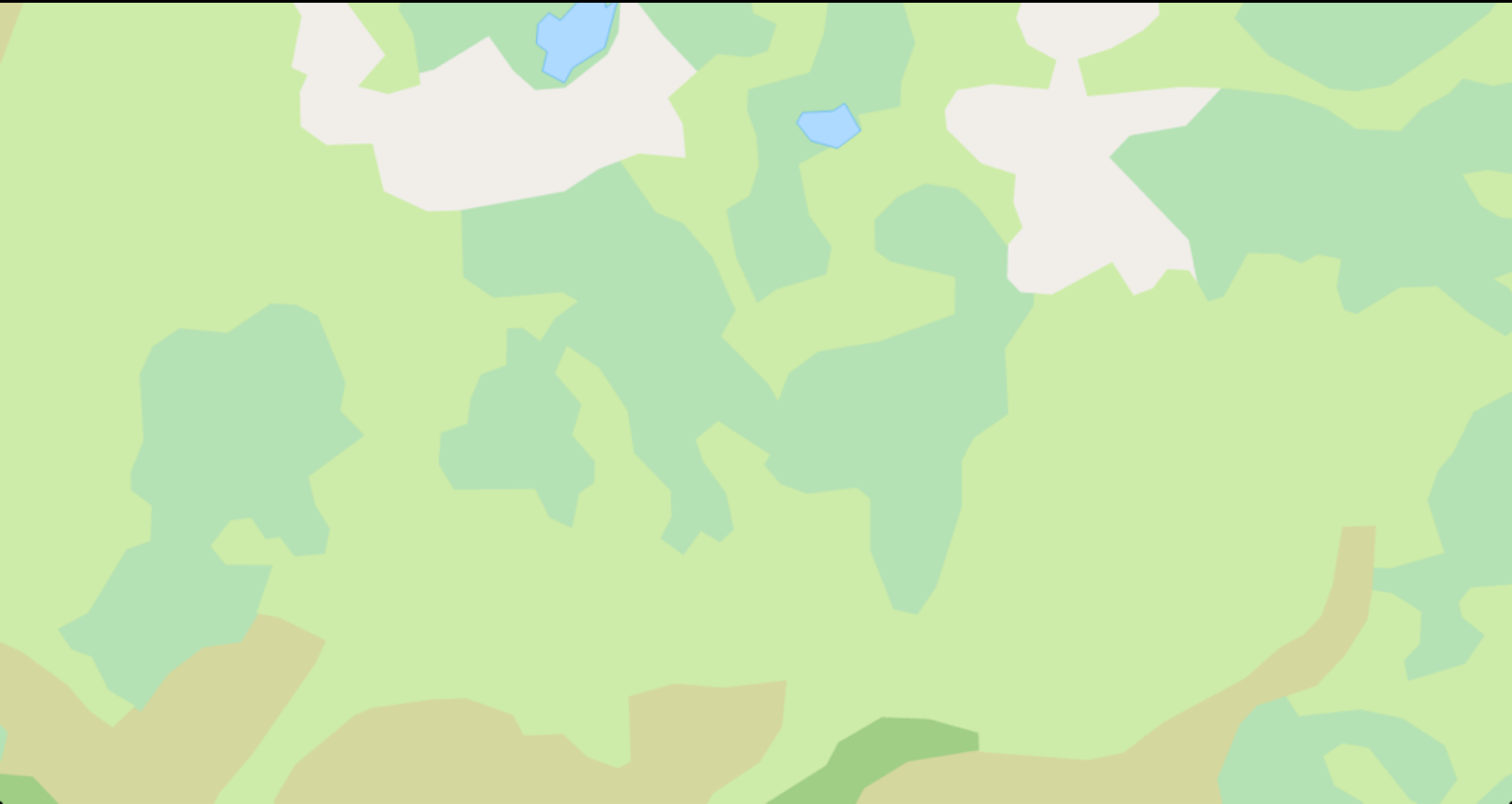


râuri: `way["waterway"~""] ({{bbox}});>;`



landuse:

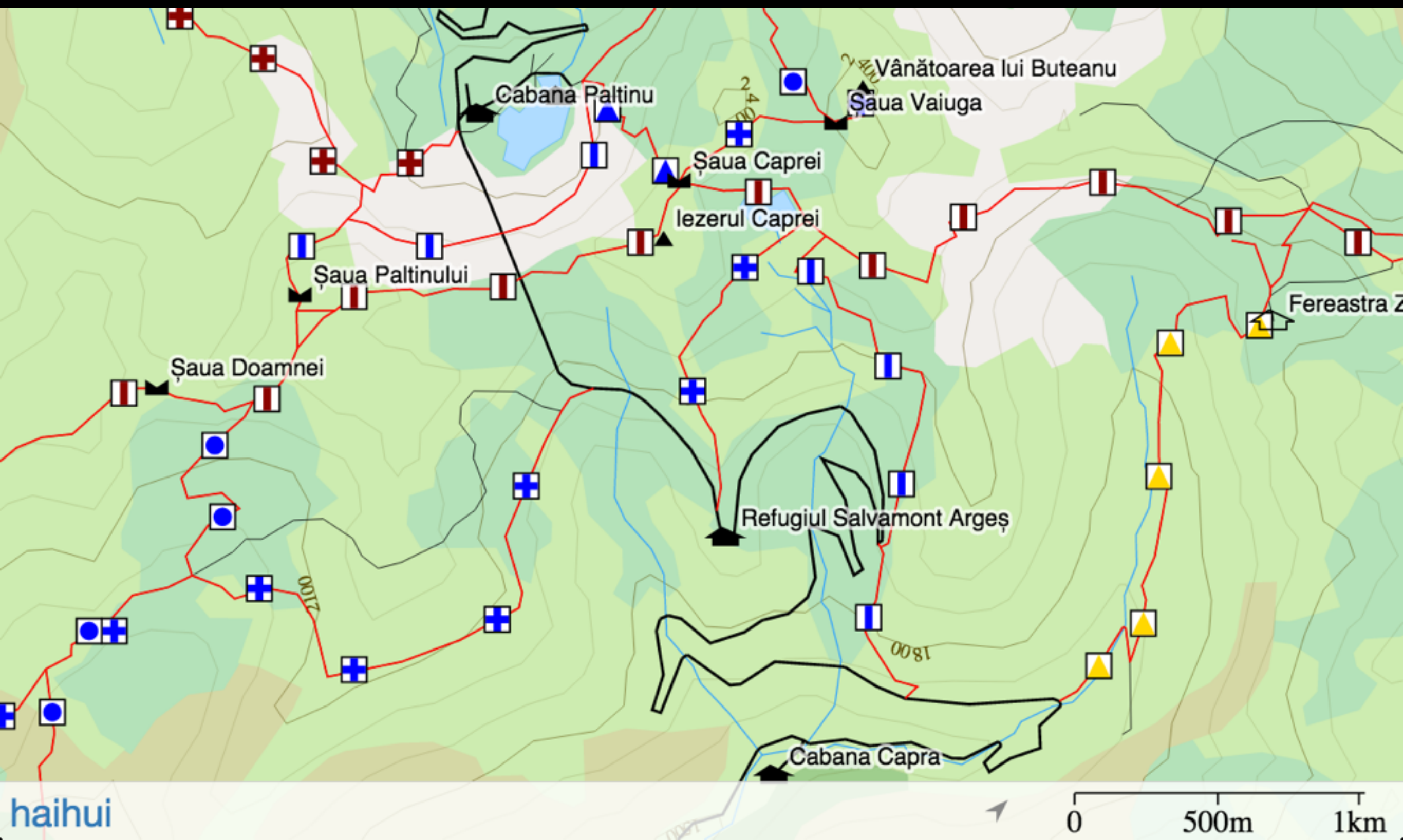
```
way["landuse"~""]({{bbox}});>;  
way["water"~"lake|reservoir"]({{bbox}});  
way["natural"~""]({{bbox}});>;  
way["leisure"="park"]({{bbox}});>;
```



DEM:
`gdalwarp ro.tiff fagaras.tiff -te 24.30 45.47 24.89 45.73`
`gdal_contour fagaras.tiff fagaras.shp -a elevation -i 100`



Harta completă



Elements Network Sources Timeline Profiles Resources Audits Console

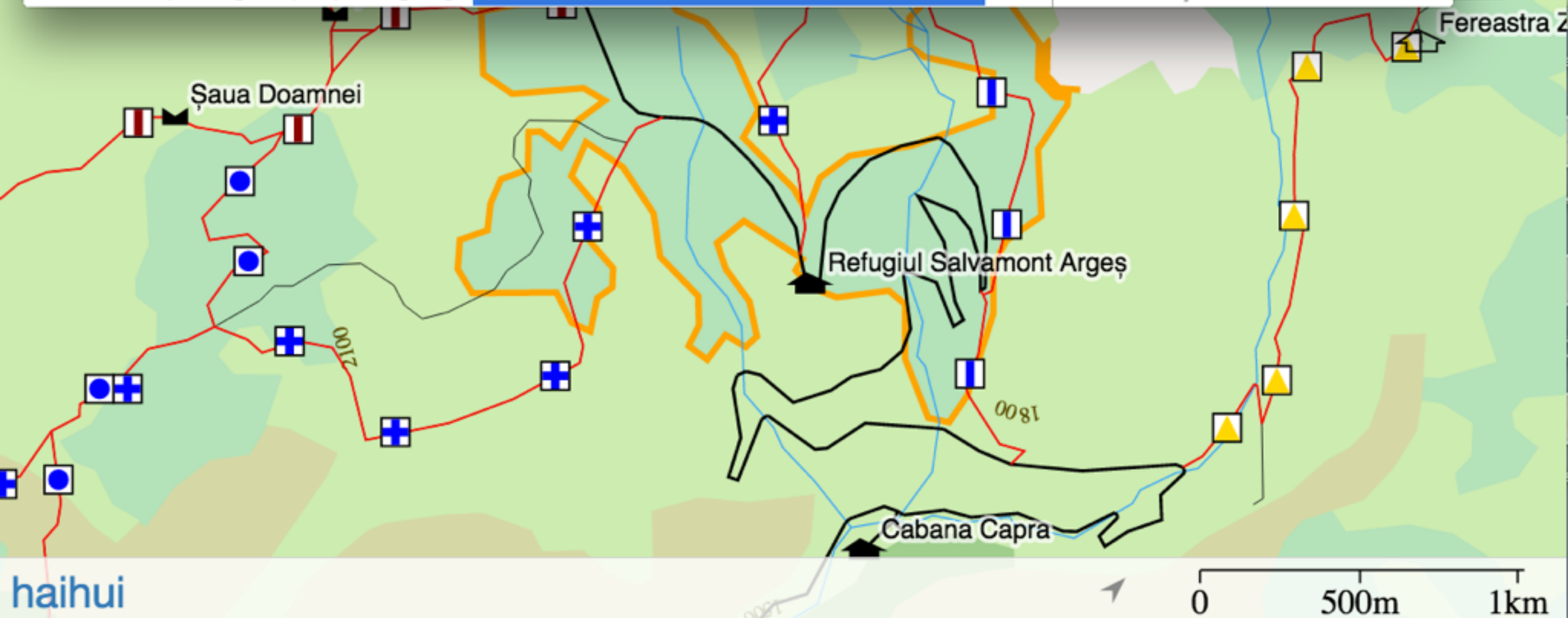
```
7204310,339.29933307200030L004.1002231727312,314.4493097037  
818L689.3968550726845,299.7201599576779L696.4344298471669,2  
91.39869087983607L706.3658336312337,271.67514742805497L725.  
0000000000005,261.63869752301434L725.0000000000005,354.8795  
858355461Z"></path>  
<path class="landPoly land-scrub" id="way/88011212"></path>  
<path class="landPoly land-scrub" id="way/88011331" d=  
"M482.96359269648156,191.41749686470257L482.4880808873954,2  
07.86443523667867L489.1927973955171,215.02694907172827L496.  
48171412623105,215.52973112558675L496.0741325755848,221.354  
3333935895L482.48128786155075,241.86613684506437L484.152372  
21919824,273.11105888695556L467.42114956519254,284.79861120  
6730131461.78293811459343.295.35277347289141461.71500785615
```

Styles Computed >>

```
element.style {  
  stroke: orange;  
  stroke-width: 7px;  
}  
  
.land-scrub region.css:164  
{  
  fill: #b4e2b9;  
  stroke: #b4e2b9;  
}
```

html body svg.mapLayer g g path#way/88011331.landPoly.land-scrub

Find in Styles



Aplicație

- Script de pregătit datele (node.js, overpass, gdal, turf.js)
- Pagină web optimizată pentru mobil
- Appcache (offline)

Fişere

index.html
data.json
../region.css
../d3.min.js
../topojson.min.js
../proj4.js
../ui.js

data.json: 1528 KB (475 KB gzip)

Optimizare

- Date împachetate ca TopoJSON
- Simplificat geometria la afișare
- Animație zoom cu 3d-transforms
- Browserele mobile sunt rapide!

Vise

- Mai multe regiuni, alte țări
- Click pentru informații despre punct/drum
- Învățat pe salvamontiști să contribuie la OSM

mulțumesc! întrebări?



haihui.grep.ro
github.com/mgax/haihui
is.gd/overpasscluj2015

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grep.ro