



cake

Analytical Base Tables for Swiss Addresses

Installation

Install the cake library from the Github account:

```
devtools::install_github("datenbaecker/cake")
```

Connect to a Data Provider

Load the library, connect to the REST API and register the connector as default data provider. The downloaded data can automatically be saved on disk, so that subsequent calls can operate on local data.

```
library(cake)

dp <- datenbaecker(cache_dir = TRUE)
default_data_provider(dp)
```

Statistical Units

Get ID and labels of different statistical units (communes, zip codes, cantons):

```
communes <- get_communal_entites() %>%
  filter(kanton_label %in% c("ZH", "LU", "BE"))
head(communes)
```

| | id | name | kanton_label |
|---|----|--------------------|--------------|
| 1 | 1 | Aeugst am Albis | ZH |
| 2 | 2 | Affoltern am Albis | ZH |
| 3 | 3 | Bonstetten | ZH |
| 4 | 4 | Hausen am Albis | ZH |
| 5 | 5 | Hedingen | ZH |
| 6 | 6 | Kappel am Albis | ZH |

Get Information for Addresses

Get a table for a selected sample of addresses all over Switzerland:

```
smpl_adr <- get_address_features()
```

Or search for specific addresses:

```
adr_feat <- get_address_features("Bundesstrasse 9 6003 Luzern")
```

And you get back a table with a predefined set of variables from different sources:

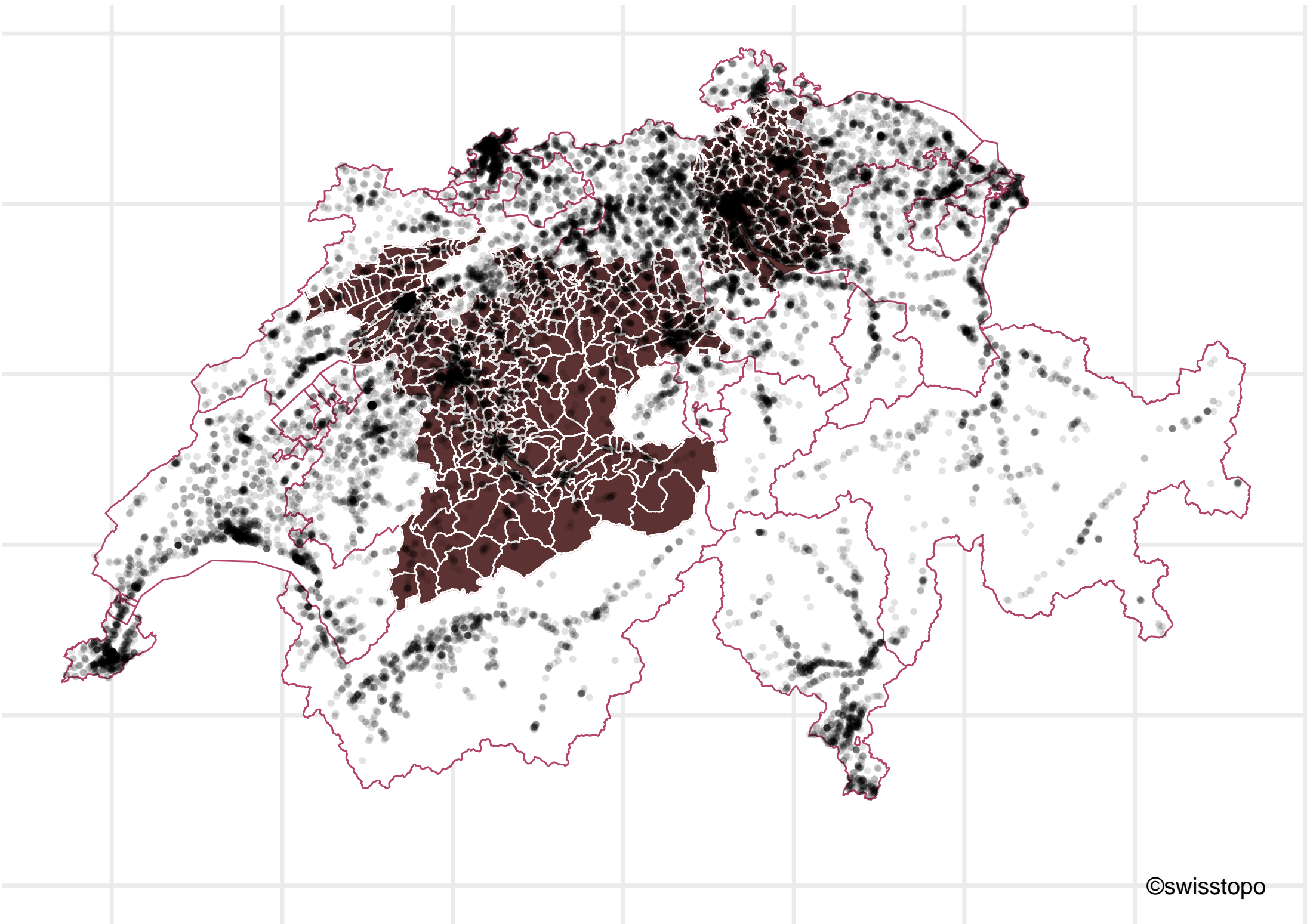
```
adr_feat %>%
  bind_rows(smpl_adr) %>%
  select(stn_short, adr_number, zip_name, com_canton, e_koord, n_koord, bev_total, bev_nat_foreign, bev_sex_m_40)
```

| | stn_text | adr_number | zip_name | com_canton | e_koord | n_koord | bev_total | bev_nat_foreign | bev_sex_m_40 |
|---|-----------------------|------------|------------|------------|---------|---------|-----------|-----------------|--------------|
| 1 | Bundesstrasse | 9 | Luzern | LU | 2665800 | 1210700 | 36 | 7 | 0 |
| 2 | Konsumstrasse | 9a | Oberwil BL | BL | 2609000 | 1262700 | 61 | 45 | 4 |
| 3 | Chemin de l'Epenontaz | 8 | Bernex | GE | 2495500 | 1115600 | 28 | 3 | 3 |
| 4 | Militärstrasse | 19 | Liestal | BL | 2622900 | 1259100 | 38 | 3 | 3 |
| 5 | Rottmannsbodenstrasse | 7 | Binningen | BL | 2609900 | 1265300 | 87 | 14 | 3 |
| 6 | Hubackerweg | 33d | Reinach BL | BL | 2611400 | 1261000 | 51 | 11 | 3 |

Plot

Plot your data with ggplot geometries for Swiss entities:

```
ggplot(tibble(bfs_num = 1:26), aes(id = bfs_num)) +
  geom_canton(fill = "white") +
  geom_commune(aes(id = id), communes, colour = "white") +
  geom_point(
    aes(x = e_koord, y = n_koord, alpha = bev_total),
    inherit.aes = FALSE, data = adr_feat, size=0.2
  )
```



Get Metadata

The metadata command lists all sources:

```
metadata(adr_feat)
```

Bundesamt für Landestopografie swisstopo

- adr_number**
Hausnummer
- com_canton**
Kantonskürzel
- stn_text**
Strassenname
- zip_name**
Ortschaftsname gemäss amtlichem Ortschaftenverzeichnis

Bundesamt für Statistik BFS

- bev_nat_foreign**
Ständige Wohnbevölkerung nach Staatsangehörigkeit Ausländer/innen, Total
- bev_total**
Ständige Wohnbevölkerung, Total

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