

Creează-ți harta!

CUM SĂ CREĂM O HARTĂ

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IAȘI, 2018

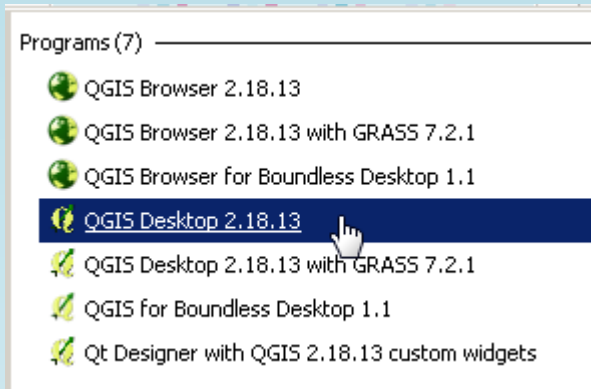
Geografia

- Știință a descrierii și descoperirii a lumii în care trăim.
- Geo (Pământ) + Graphos (desenare/descriere)
- Cu rădăcini în perioada antică greacă, când descria textual și grafic regiunile puțin cunoscute ale acelor timpuri.
- Este o știință aplicată/practică, încă de la începuturi, mai ales datorită utilizării cartării și a hărților.
- Geografia este peste tot deoarece orice spațiu de pe Terra are o locație, iar la ora actuală rapiditatea cu care oamenii și informațiile se deplasează

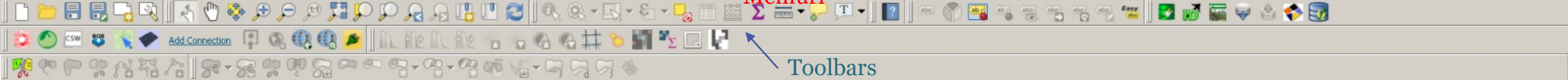
Harta

- Din perspectivă cartografică, analitică, harta este o reprezentare generalizată și micșorată a suprafeței terestre.
- Computerul, Sistemele Informaționale Geografice, bibliotecile open source și teledetecția au revoluționat domeniul.
- Acum, oricine poate crea hărți. Cele mai simple sunt mash-up-urile (compilații).
- Orice hartă, trebuie privită critic, deoarece de foarte multe ori hărțile sunt folosite impropriu sau pentru a manipula.
- Geografii trebuie să iubească hărțile, și orice geograf ar trebui să le poată întocmi, utiliza, interpreta.

QGIS – aplicație GIS open source



- Următoarele paneluri (click dreapta pe spațiul gri din partea de sus a ferestrei QGIS) ar trebui activate:
- Layers Panel
- Attributes Toolbar
- Database Toolbar
- Digitizing Toolbar
- Digitizing Tools
- Editing
- Help Toolbar
- Label Toolbar
- Manage Layers Toolbar
- Map Navigation Toolbar
- Project Toolbar
- Raster Toolbar
- Vector Toolbar
- Web Toolbar



Meniuri

Toolbars

Layers Panel

Layer Manager

A vertical panel on the left side of the interface. It contains a toolbar with icons for layer management (add, remove, toggle visibility, etc.) and a text area labeled "Layer Manager". Below the text area is a scale indicator showing "0.100".

Main view

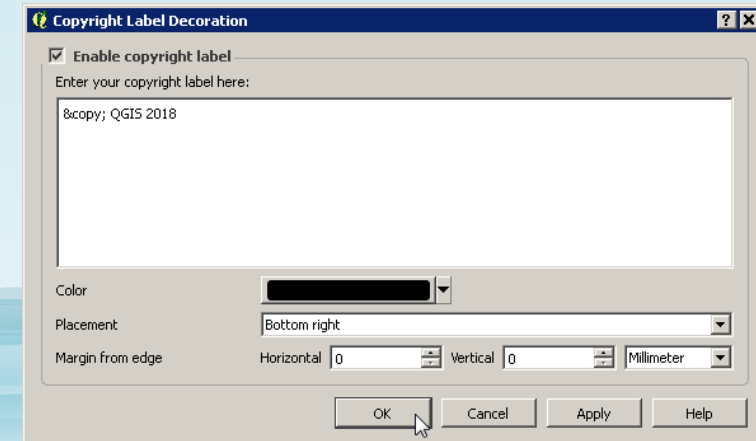
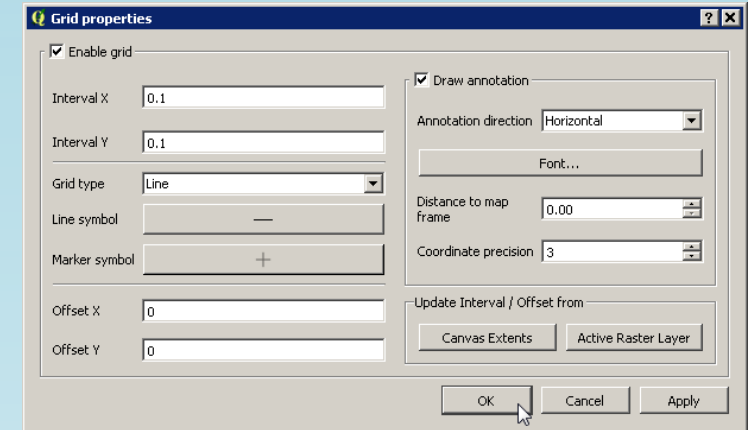
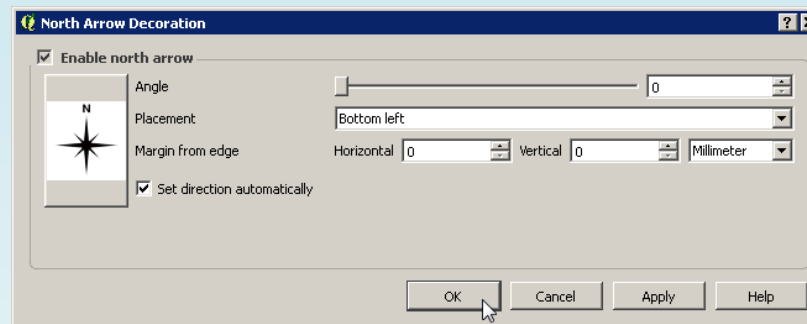
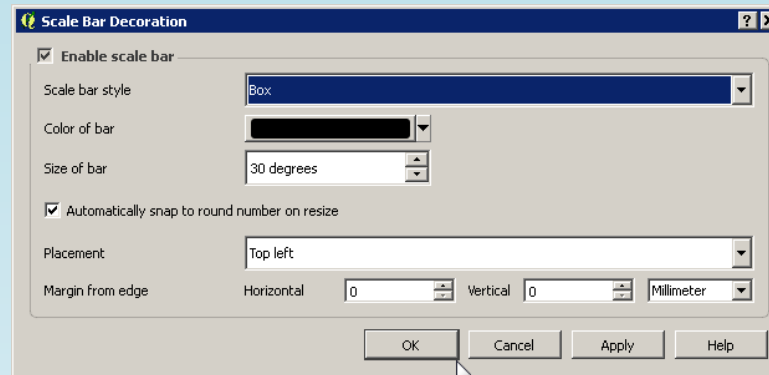
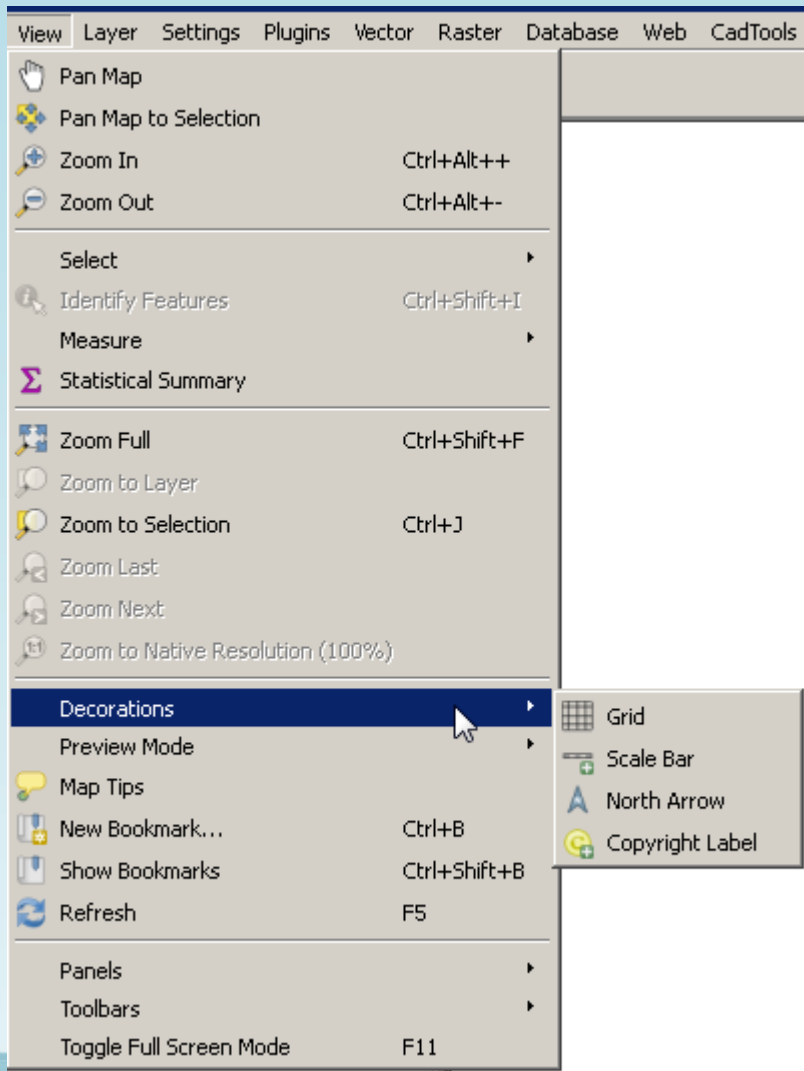
Toolbars

Coordinate cursor

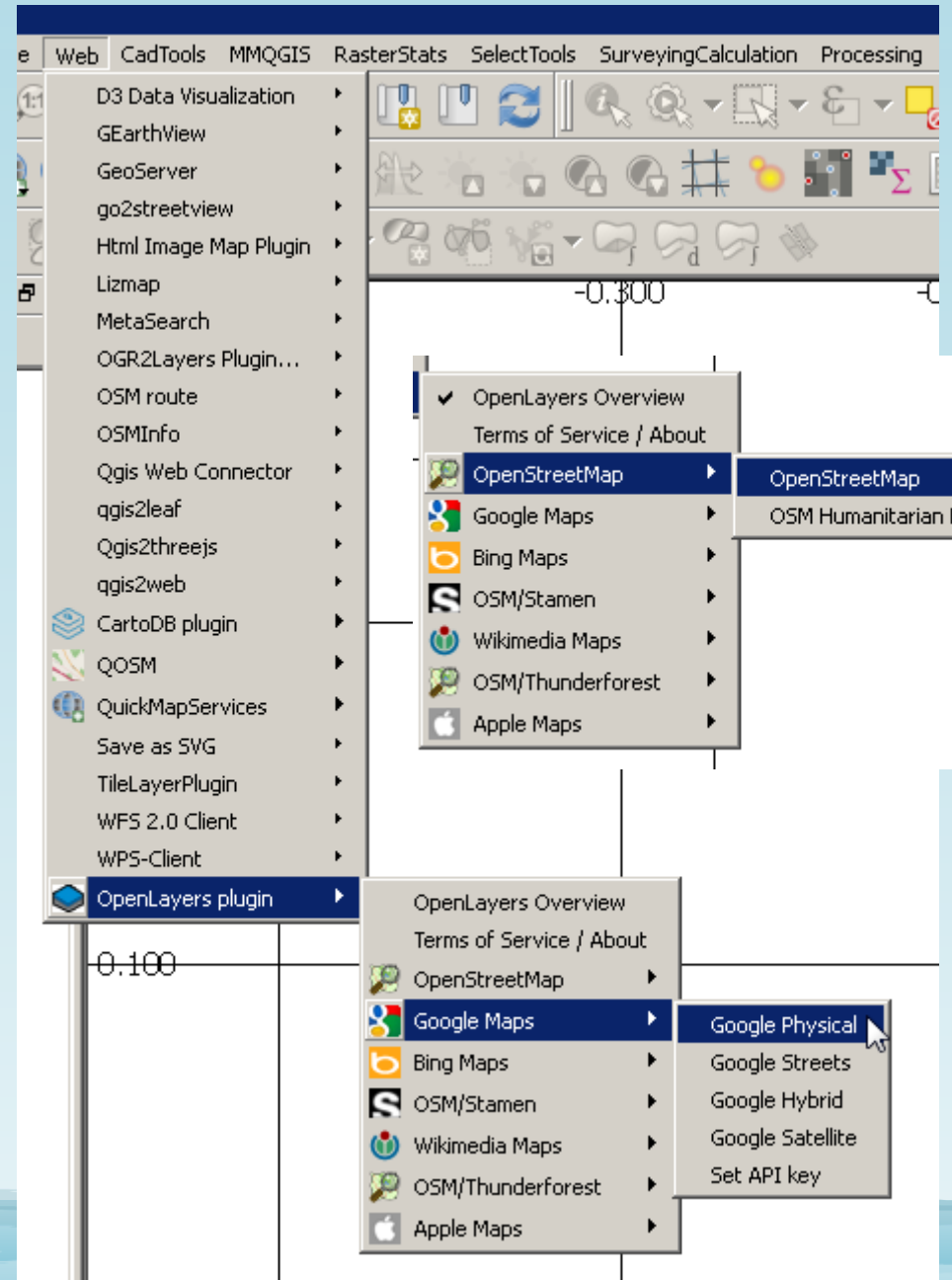
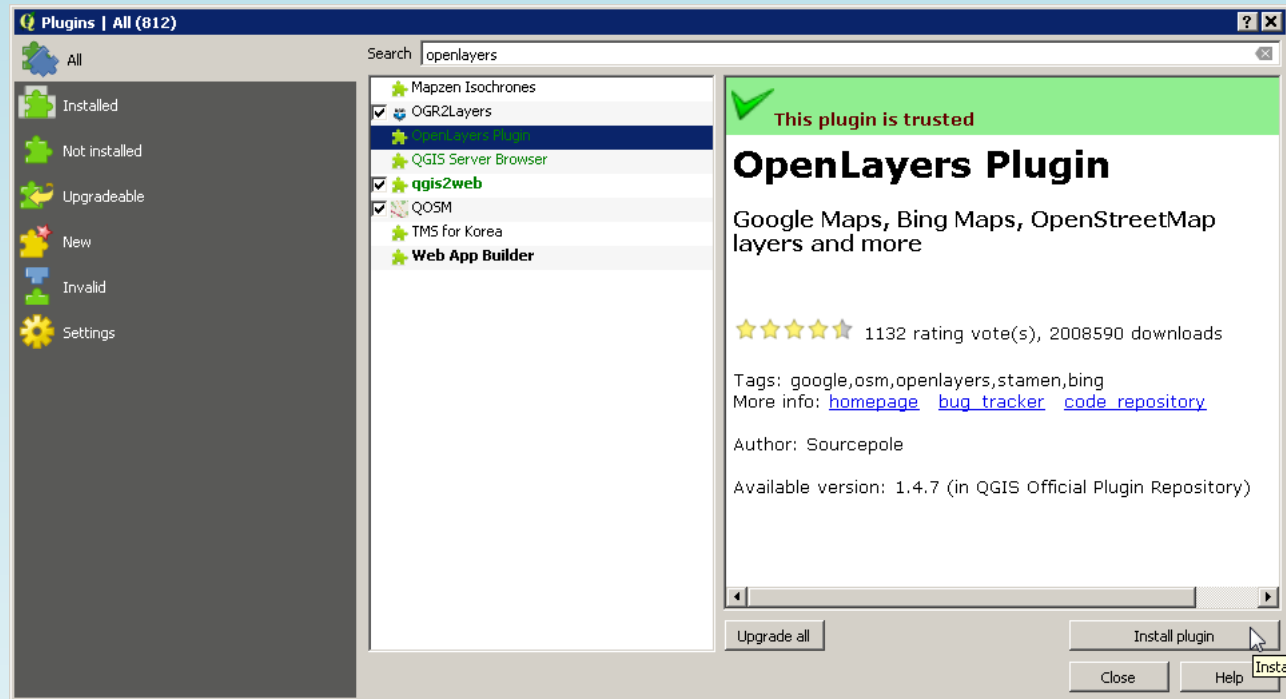
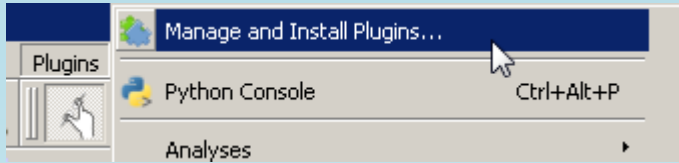
Scala de vizualizare

Cod EPSG

Elementele unei hărți în fereastra principală



Plugin-ul Openlayers



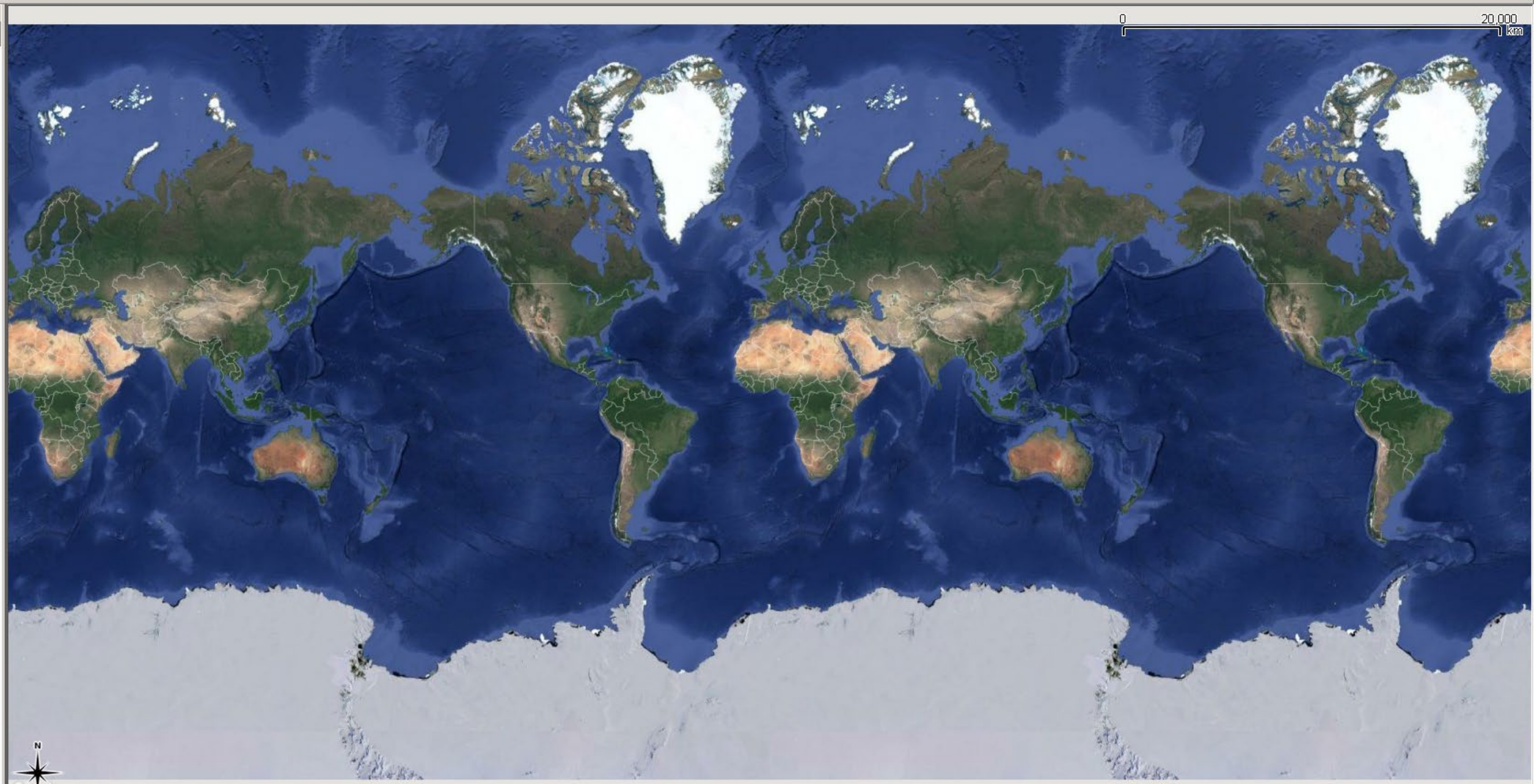


Layers Panel

- Google Hybrid

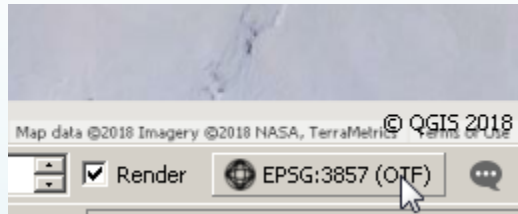
0.100

xy



0 20,000 1 km

Managementul proiectiilor



Project Properties | CRS

Enable 'on the fly' CRS transformation (OTF)

Filter

Recently used coordinate reference systems

Coordinate Reference System	Authority ID
* Generated CRS (+proj=merc +a=6378137 +b=...	USER:100007
World Equidistant Cylindrical (Sphere)	EPSG:3786
World_Mollweide	EPSG:54009
WGS 84 / UTM zone 33N	EPSG:32633
Dealul Piscului 1970/ Stereo 70	EPSG:31700
WGS 84 / Pseudo Mercator	EPSG:3857
WGS 84	EPSG:4326
Pulkovo 1942(58) / Stereo70	EPSG:3844

Coordinate reference systems of the world Hide deprecated CRSs

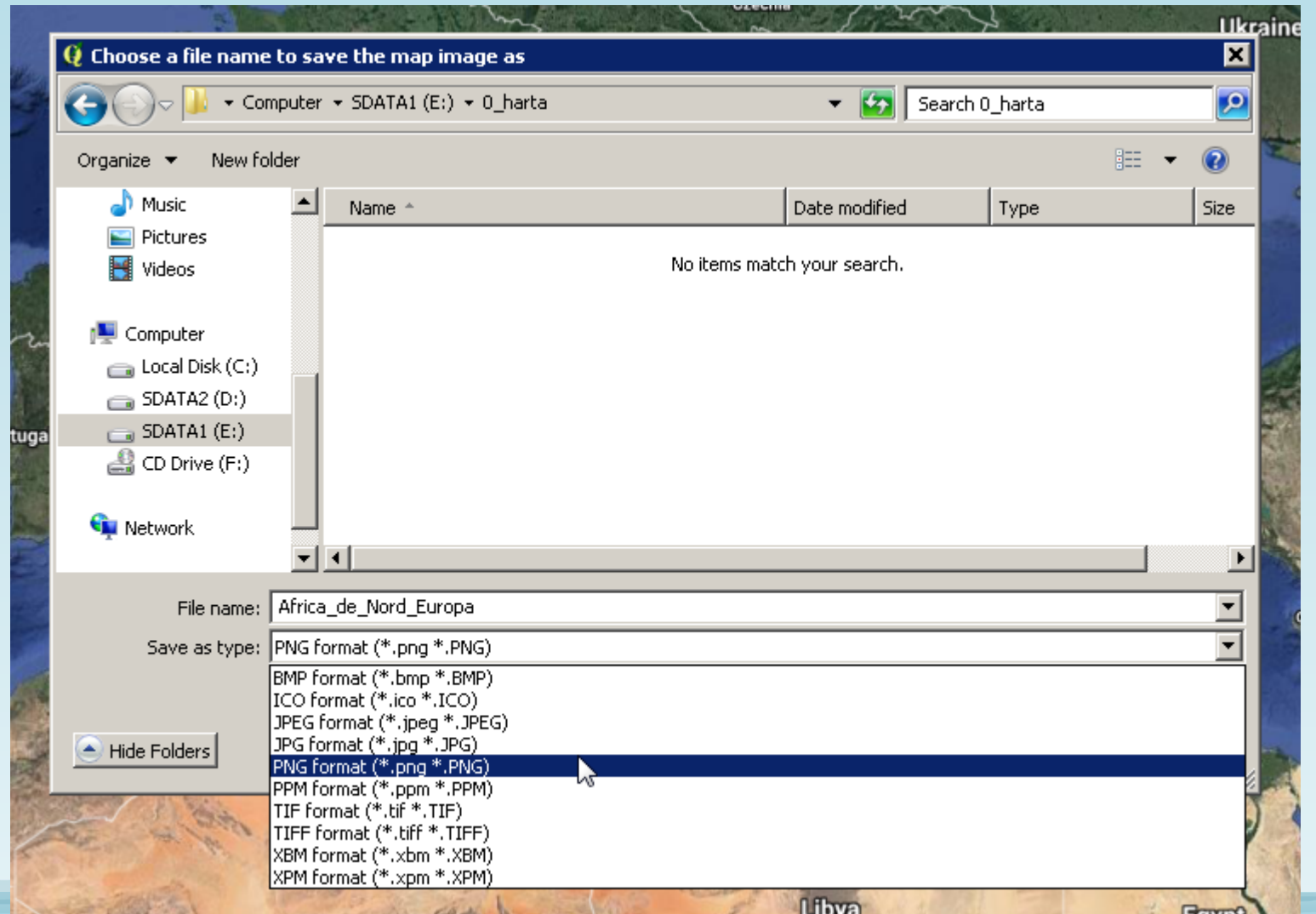
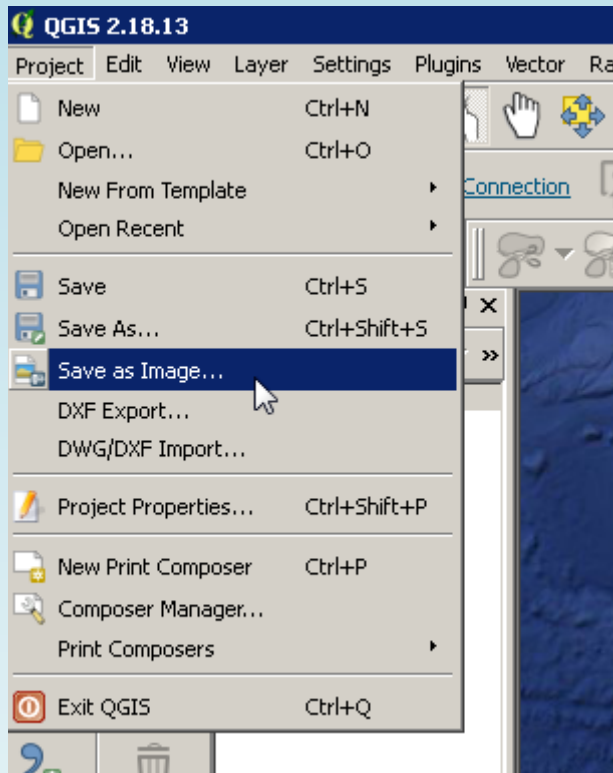
Coordinate Reference System	Authority ID
WGS 84 / USGS Transantarctic Mountains	EPSG:3294
WGS 84 / Uttar Pradesh	EPSG:7775
WGS 84 / Uttaranchal	EPSG:7776
unnamed	EPSG:27500
Loximuthal	
Sphere_Loximuthal	EPSG:53023

Selected CRS: WGS 84 / Pseudo Mercator

```
+proj=merc +a=6378137 +b=6378137 +lat_ts=0.0 +lon_0=0.0 +x_0=0.0 +y_0=0 +k=1.0  
+units=m +nadgrids=@null +wktext +no_defs
```

OK Cancel Apply Help

Salvare ca fișier de tip imagine



Baze de date cartografice libere

Natural Earth

↑ Name

- [..]
- [10m_cultural]
- [10m_physical]
- [110m_cultural]
- [110m_physical]
- [50m_raster]
- CHANGELOG
- Natural Earth quick start for ArcMap
- Natural Earth quick start for QGIS
- Natural Earth quick start for QGIS v2
- Natural Earth quick start for QGIS v2
- README
- VERSION

- ne_10m_admin_0_boundary_lines_disputed_areas
- ne_10m_admin_0_boundary_lines_land
- ne_10m_admin_0_boundary_lines_maritime_indicator
- ne_10m_admin_0_disputed_areas
- ne_10m_admin_0_map_subunits
- ne_10m_admin_0_map_units
- ne_10m_admin_0_scale_rank_minor_islands
- ne_10m_admin_1_states_provinces
- ne_10m_admin_1_states_provinces_lines
- ne_10m_admin_1_states_provinces_lines_shp
- ne_10m_admin_1_states_provinces_shp
- ne_10m_populated_places
- ne_10m_urban_areas

- ne_10m_coastline
- ne_10m_geography_marine_polys
- ne_10m_geography_regions_elevation_points
- ne_10m_geography_regions_points
- ne_10m_geography_regions_polys
- ne_10m_lakes
- ne_10m_minor_islands
- ne_10m_ocean
- ne_10m_rivers_lake_centerlines
- ne_10m_rivers_lake_centerlines_scale_rank

- ne_110m_coastline
- ne_110m_geography_marine_polys
- ne_110m_geography_regions_points
- ne_110m_geography_regions_polys
- ne_110m_lakes
- ne_110m_ocean

- ne_110m_admin_0_boundary_lines_land
- ne_110m_admin_0_countries
- ne_110m_admin_0_pacific_groupings
- ne_110m_admin_0_tiny_countries
- ne_110m_admin_1_states_provinces
- ne_110m_admin_1_states_provinces_shp
- ne_110m_populated_places

- NE1_50M_SR_W
- NE1_50M_SR_W
- NE1_50M_SR_W
- NE1_50M_SR_W.VERSION
- Read_me

www.naturalearthdata.com

Natural Earth

Free vector and raster map data at 1:10m, 1:50m, and 1:110m scales

Home Features Downloads Blog Forums Corrections About

Natural Earth I with Shaded Relief and Water

Natural Earth is a public domain map dataset available at 1:10m, 1:50m, and 1:110 million scales. Featuring tightly integrated vector and raster data, with Natural Earth you can make a variety of visually pleasing, well-crafted maps with cartography or GIS software.

Natural Earth was built through a collaboration of many **volunteers** and is supported by **NACIS** (North American Cartographic Information Society), and is free for use in any type of project (see our **Terms of Use** page for more information).

Get the Data

Convenience

Natural Earth solves a problem: finding suitable data for making small-scale maps. In a time when the web is awash in geospatial data, cartographers are forced to waste time sifting through confusing tangles of poorly attributed data to make clean, legible maps. Because your time is valuable, Natural Earth data comes ready-to-use.

Neatness Counts

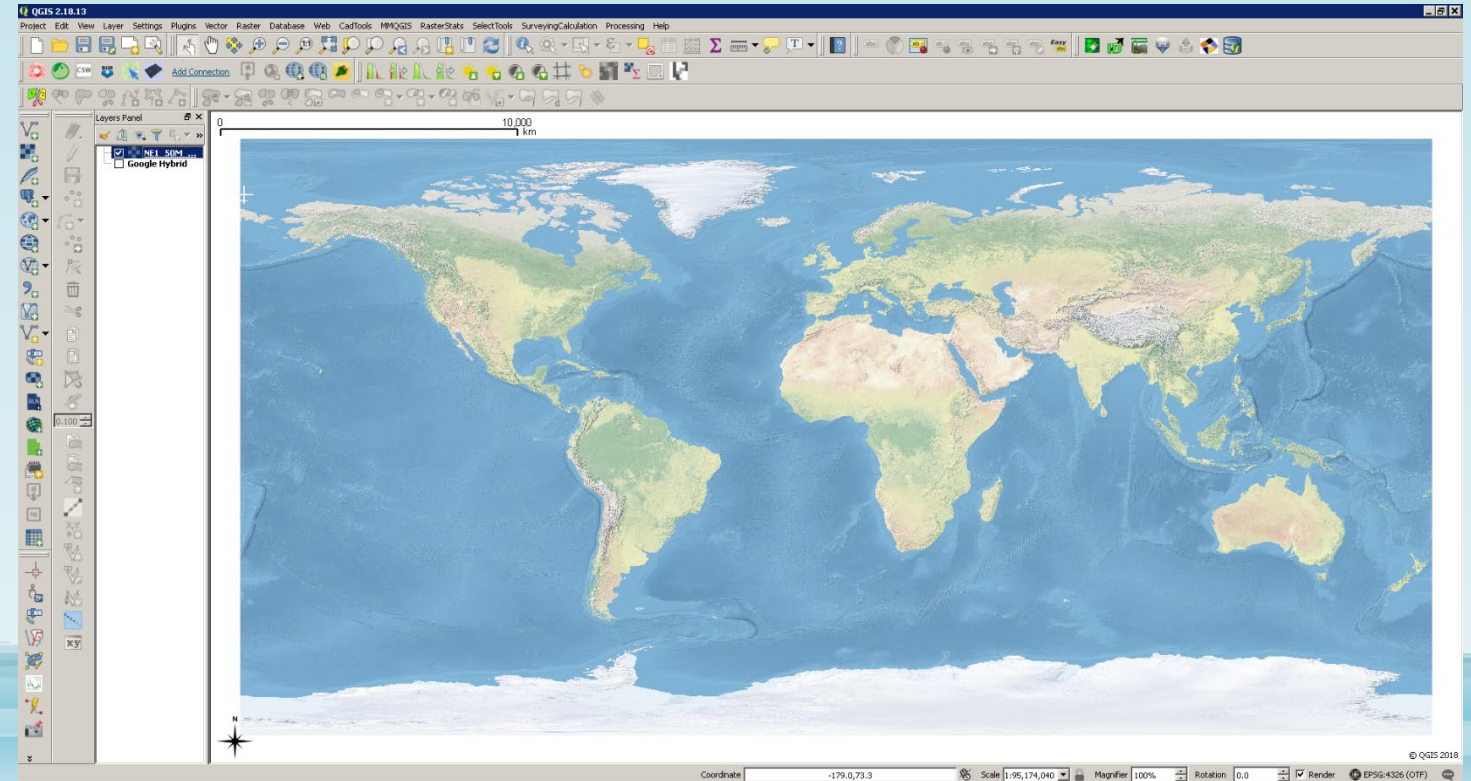
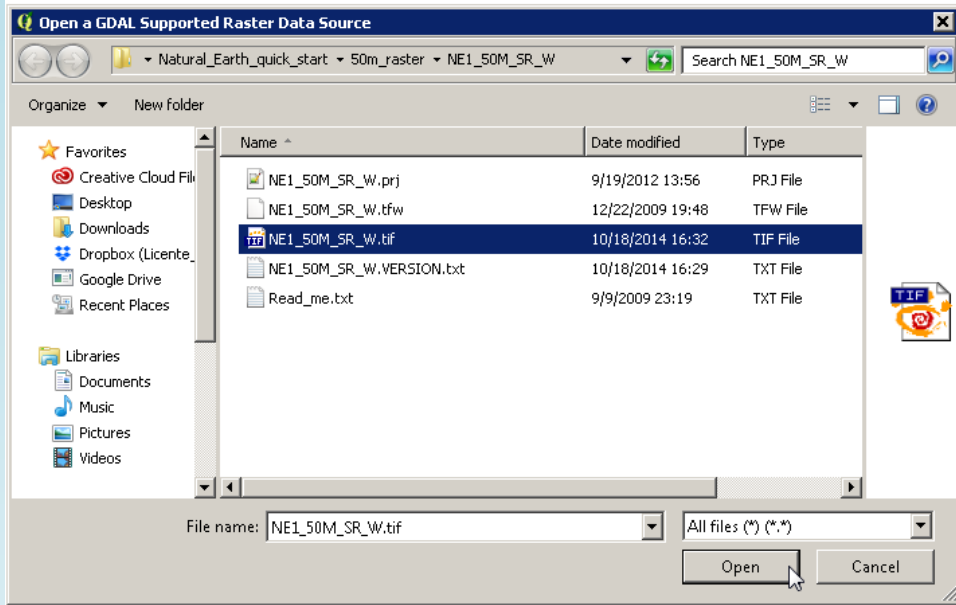
The carefully generalized linework maintains consistent, recognizable geographic shapes at 1:10m, 1:50m, and 1:110m scales. Natural Earth was built from the ground up so you will find that all data layers align precisely with one another. For example, where rivers and country borders are one and the same, the lines are coincident.

GIS Attributes

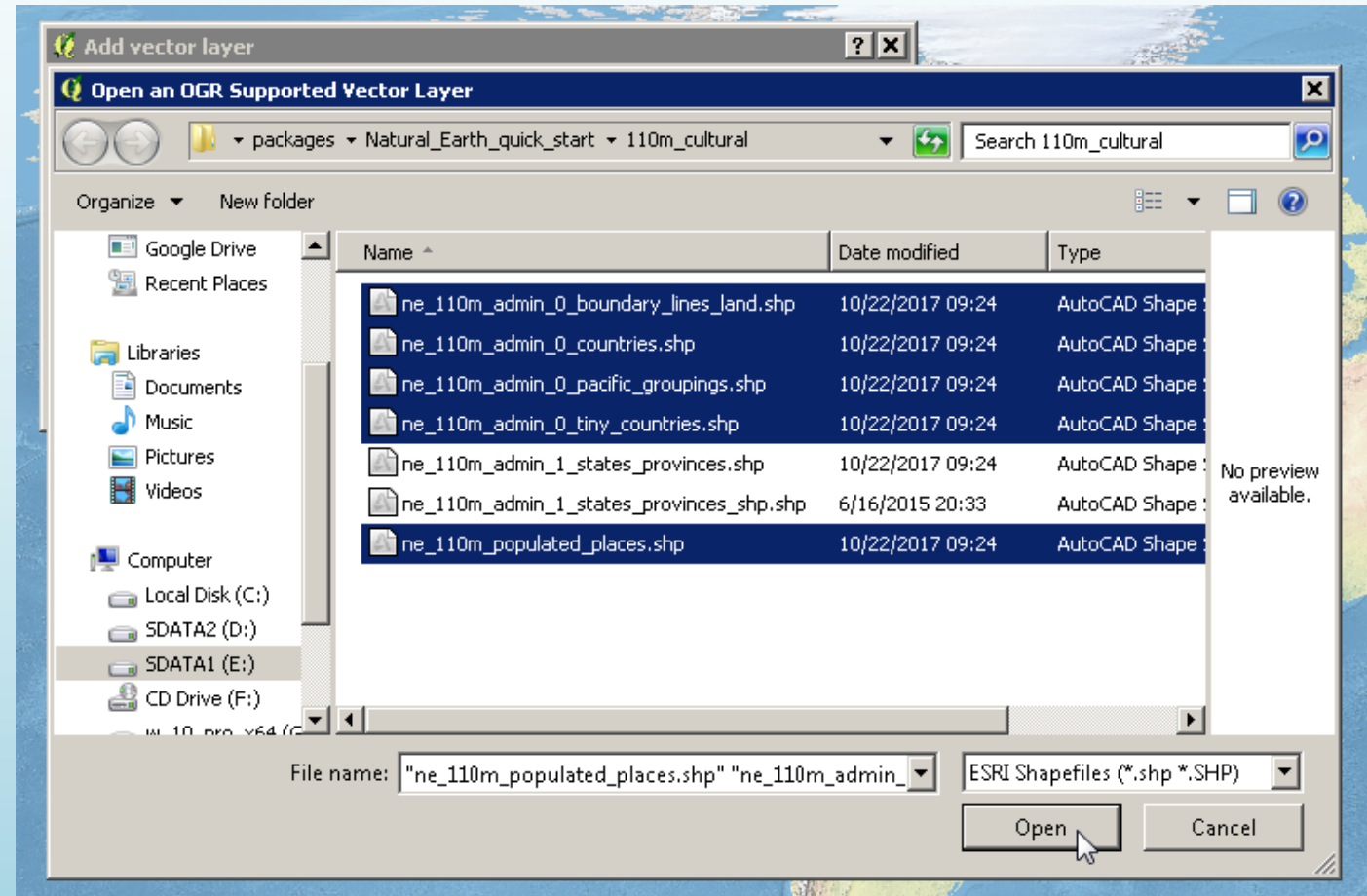
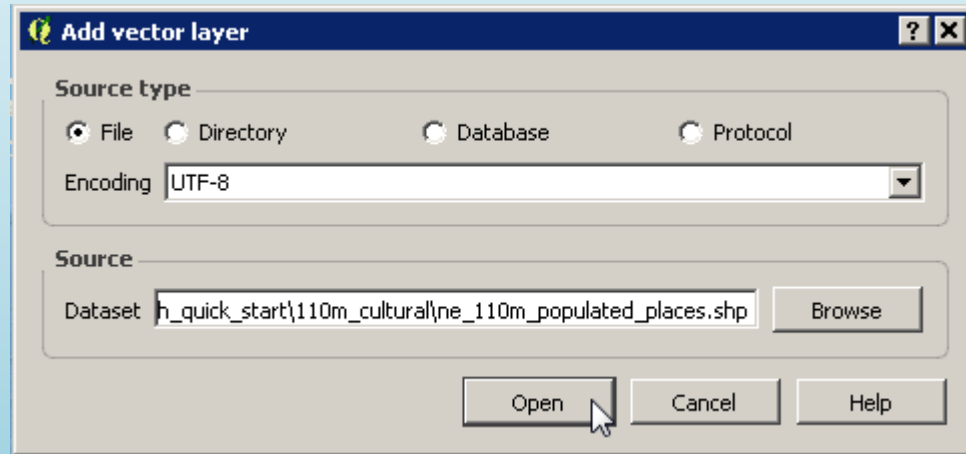
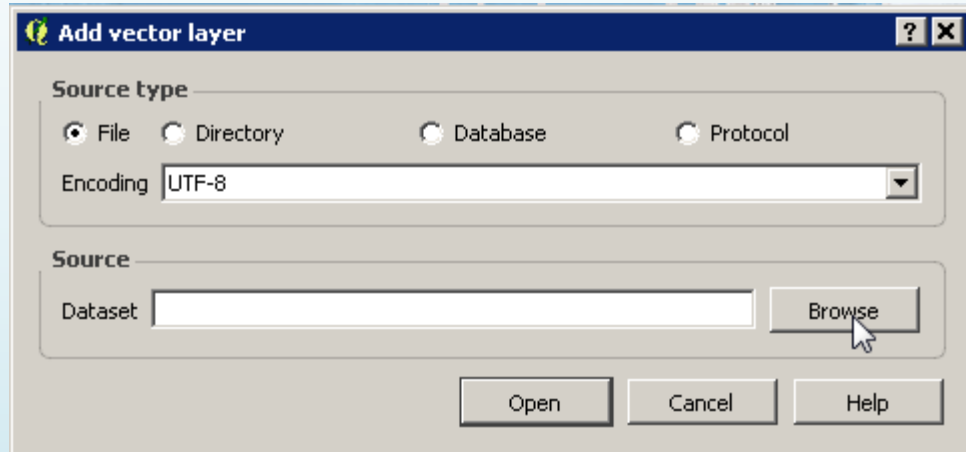
Natural Earth, however, is more than just a collection of pretty lines. The data attributes are equally important for mapmaking. Most data contain embedded feature names, which are ranked by relative importance. Other attributes facilitate faster map production, such as width attributes assigned to river segments for creating tapers.

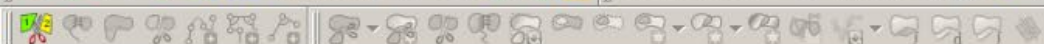
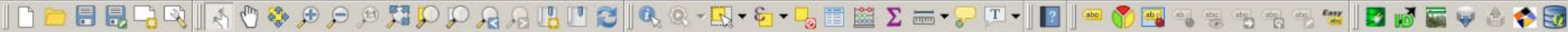
COUNTRYNAM	SCALERANK	FEATURECLA	SOVER
Afghanistan	1.000000000000	Countries	Afghanis
Aland	3.000000000000	Countries	Finland
Albania	1.000000000000	Countries	Albania
Algeria	1.000000000000	Countries	Algeria

Date raster (imagine)



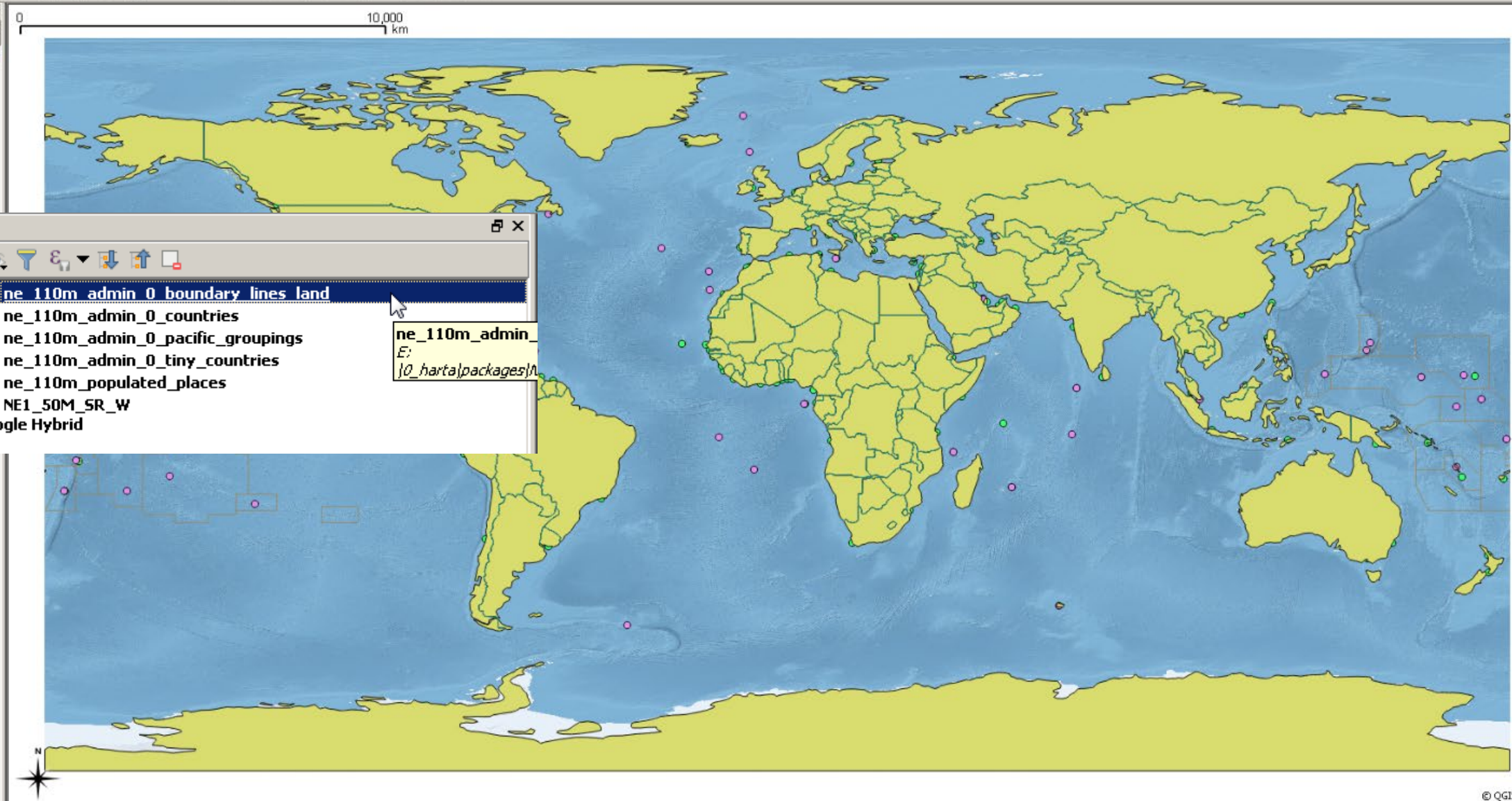
Date vector





Layers Panel

- ne_110m...
- ne_110m...
- ne_110m...
- ne_110m...
- NE1_50M...
- Google Hybrid

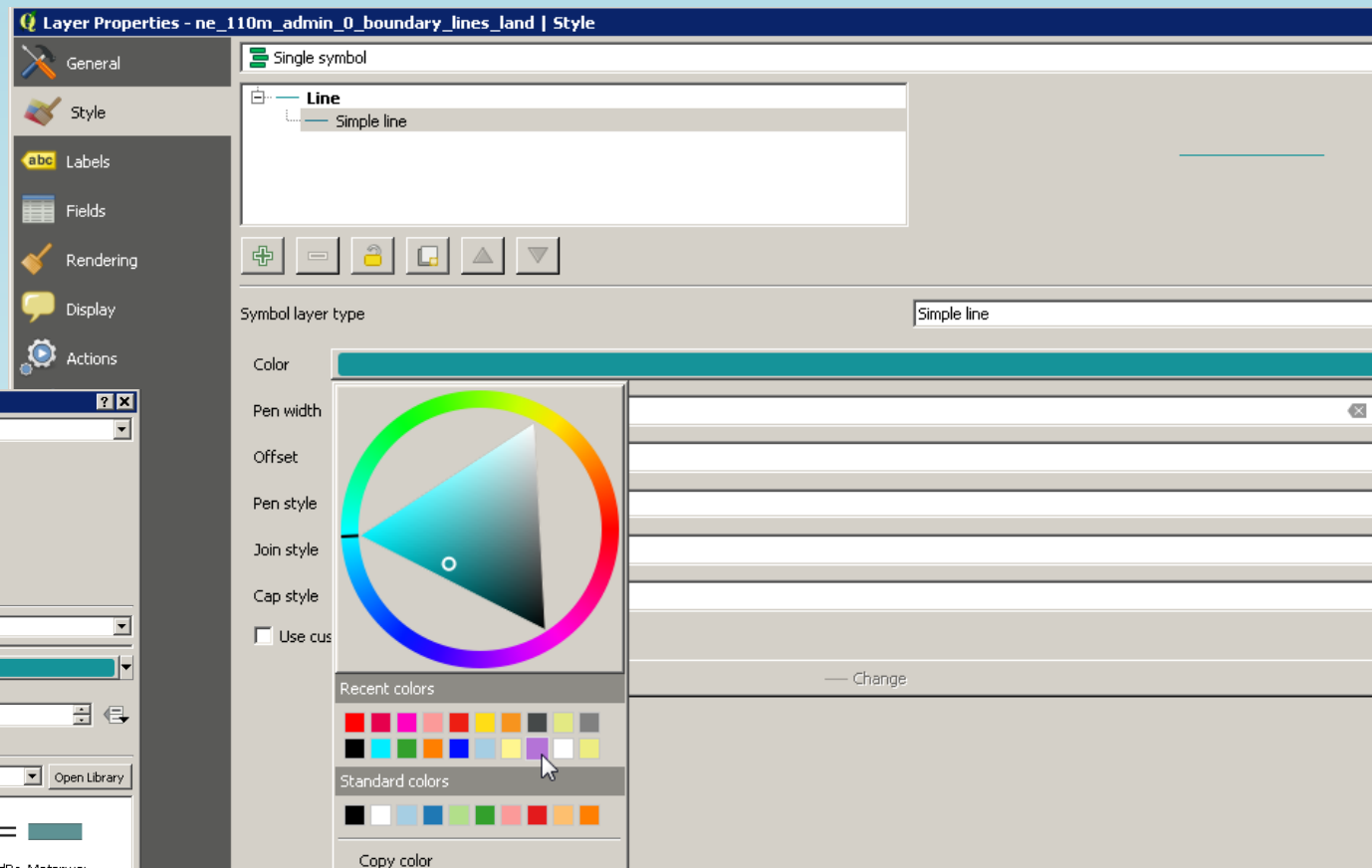
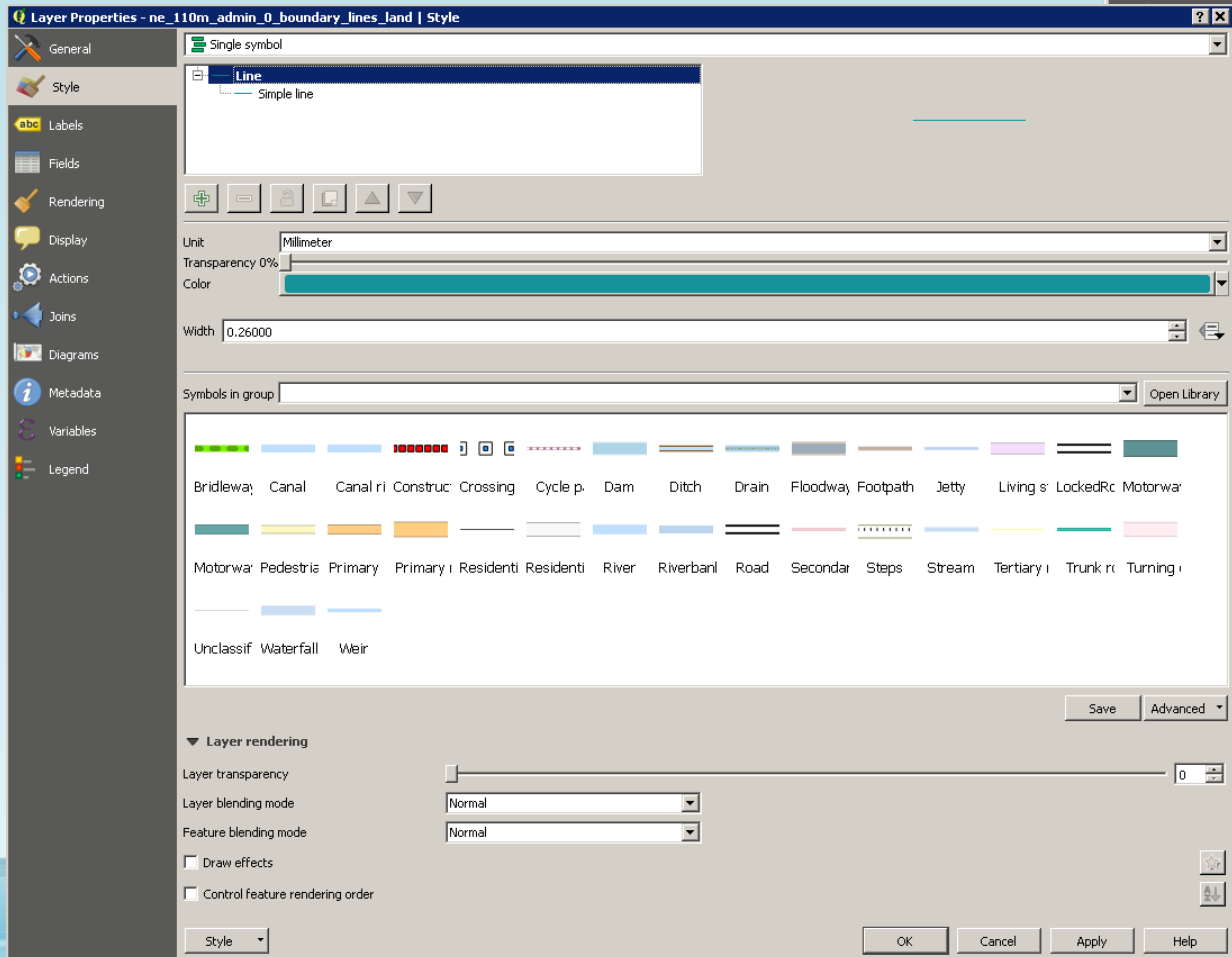


Layers Panel

- ne_110m_admin_0_boundary_lines_land
- ne_110m_admin_0_countries
- ne_110m_admin_0_pacific_groupings
- ne_110m_admin_0_tiny_countries
- ne_110m_populated_places
- NE1_50M_SR_W
- Google Hybrid

ne_110m_admin_0
E:
{0_harta/packages/}

Stilizarea liniilor



Stilizarea liniilor

Layer Properties - ne_110m_admin_0_boundary_lines_land | Style

General

Style

Labels

Fields

Rendering

Display

Actions

Joins

Diagrams

Metadata

Variables

Legend

Single symbol

Line

Simple line

Symbol layer type: Simple line

Color: [Purple color swatch]

Pen width: 0.260000 Millimeter

Offset: 0.000000 Millimeter

Pen style: Solid Line

Join style: No Pen

Cap style: Round

Use custom dash pattern:

Change [Millimeter]

Layer transparency: 0

Layer blending mode: Normal

Feature blending mode: Normal

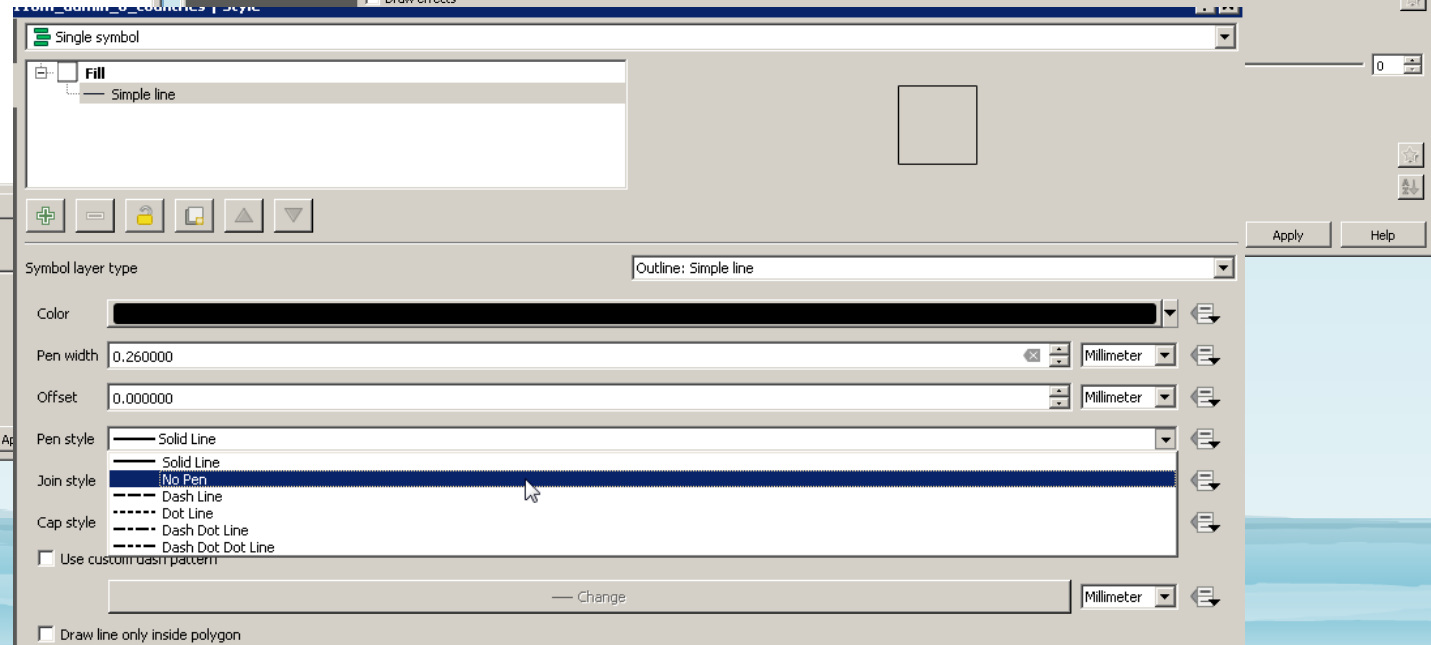
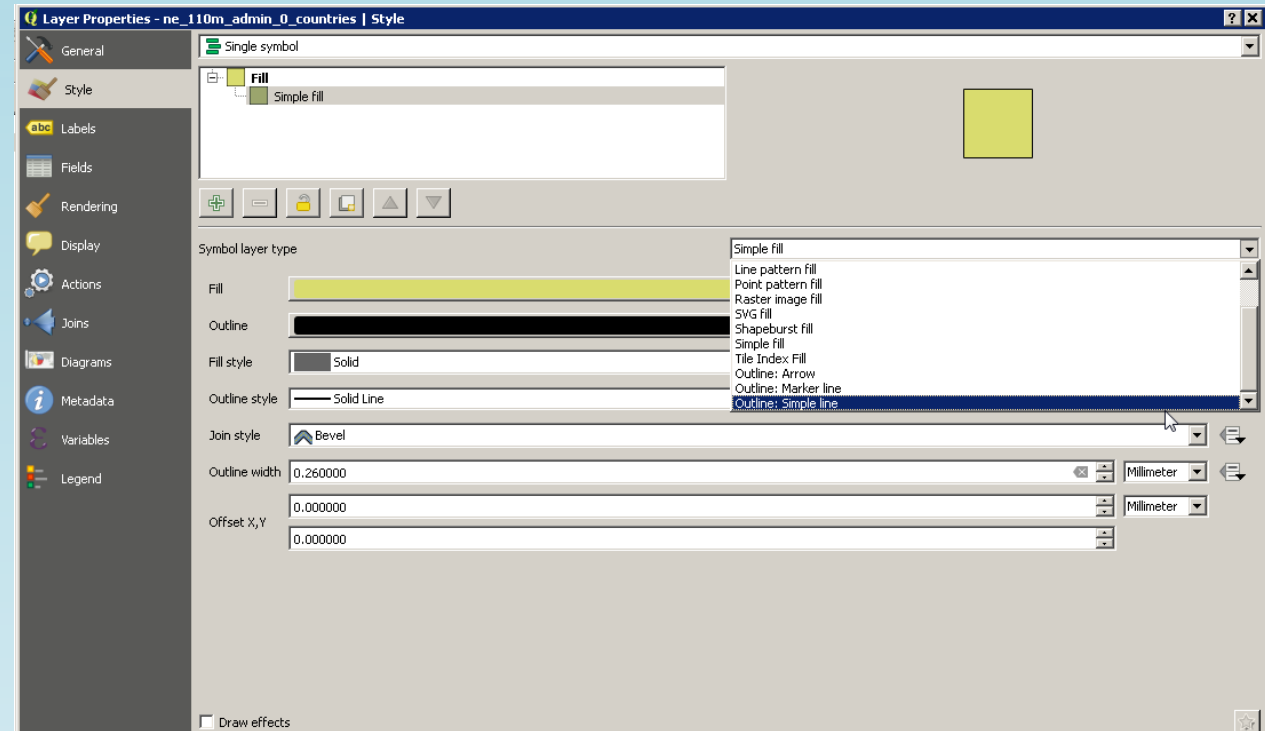
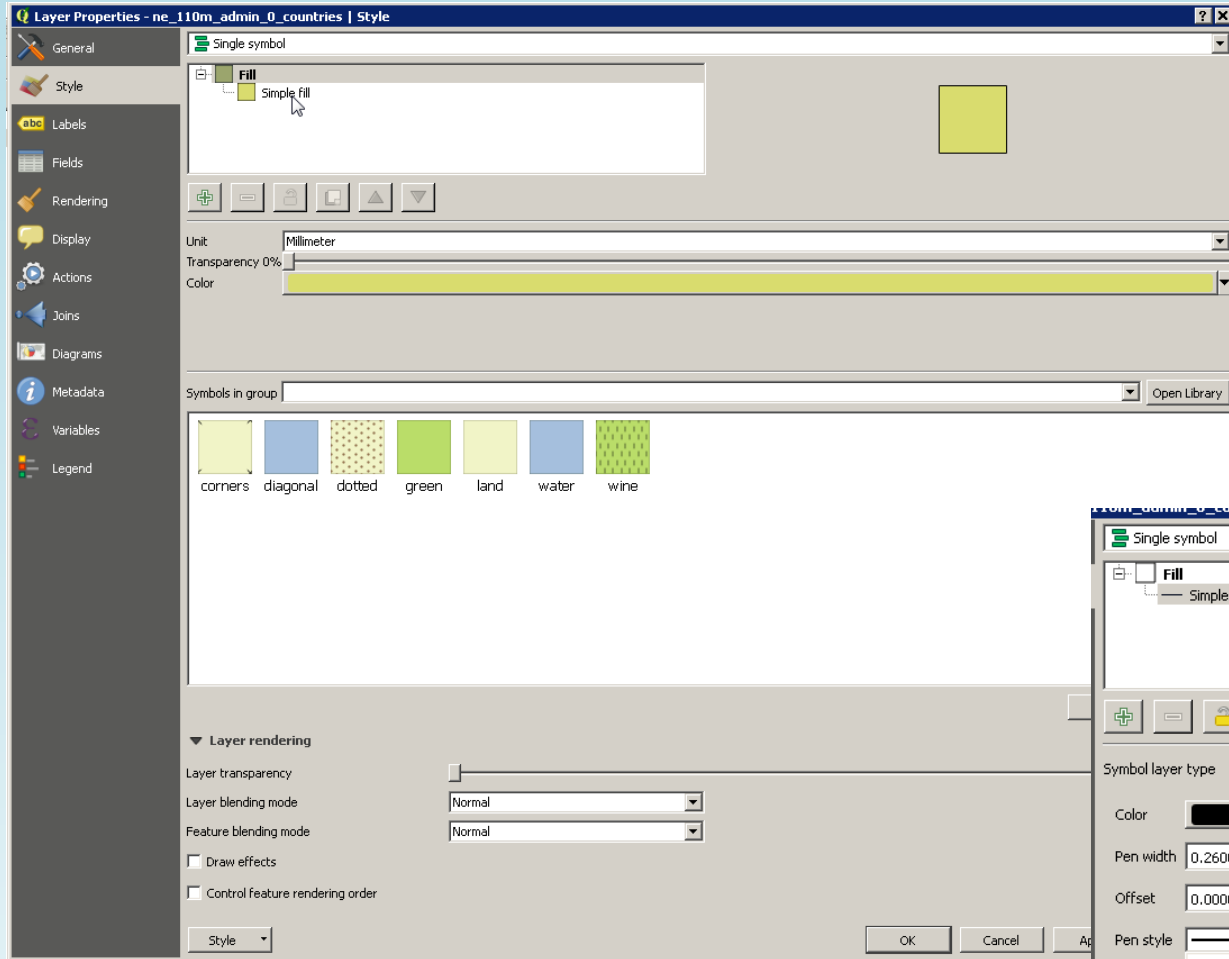
Draw effects:

Control feature rendering order:

Style

OK Cancel Apply Help

Stilizarea poligoanelor



Stilizarea poligoane

Layer Properties - ne_110m_admin_0_countries | Labels

General

Style

Labels

Fields

Rendering

Display

Actions

Joins

Diagrams

Metadata

Variables

Legend

No labels

No labels

Show labels for this layer

Rule-based labeling

Blocking

Lorem Ipsum

Lorem Ipsum

abc Text

abc Formatting

abc Buffer

Background

Shadow

Placement

Rendering

Buffer

Draw text buffer

Size: 1.0000

Color: Millimeter

Color buffer's fill

Transparency: 0 %

Pen join style: Round

Blend mode: Normal

OK Cancel Apply Help

Layer Properties - ne_110m_admin_0_countries | Labels

Show labels for this layer

Label with

Text/

abc GU_A3

1.2 SU_DIF

abc SUBUNIT

abc SU_A3

1.2 BRK_DIFF

abc NAME

abc NAME_LONG

abc BRK_A3

abc BRK_NAME

abc BRK_GROUP

Draw text buffer

Size: 1.0000

Color: Millimeter

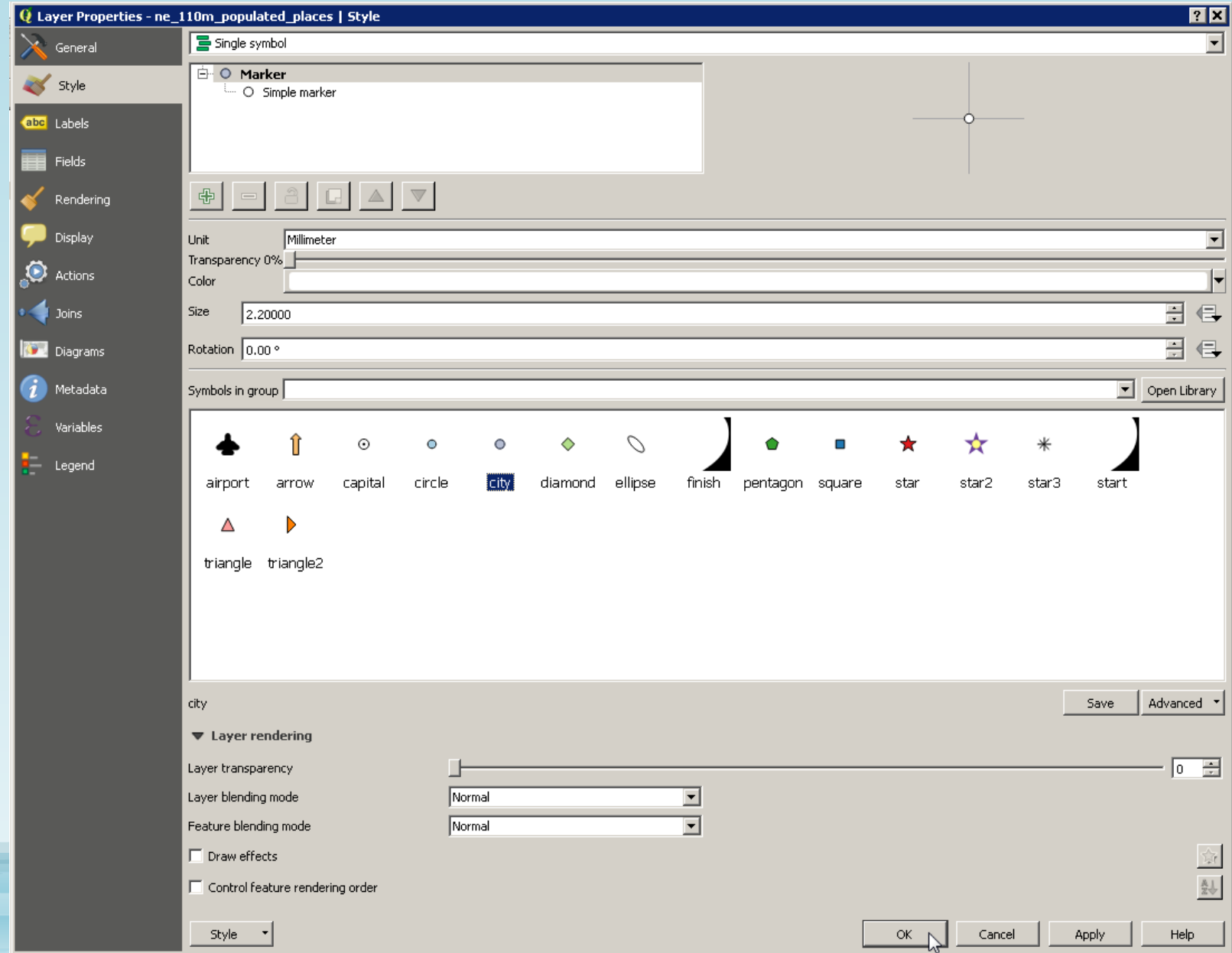
Color buffer's fill

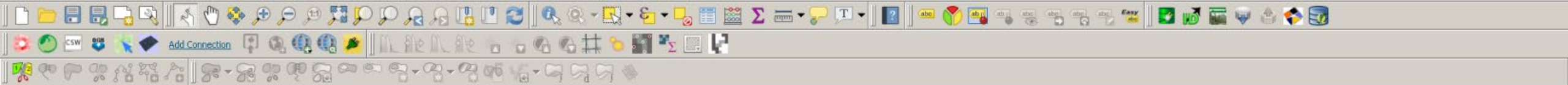
Transparency: 0 %

Pen join style: Round

Blend mode: Normal

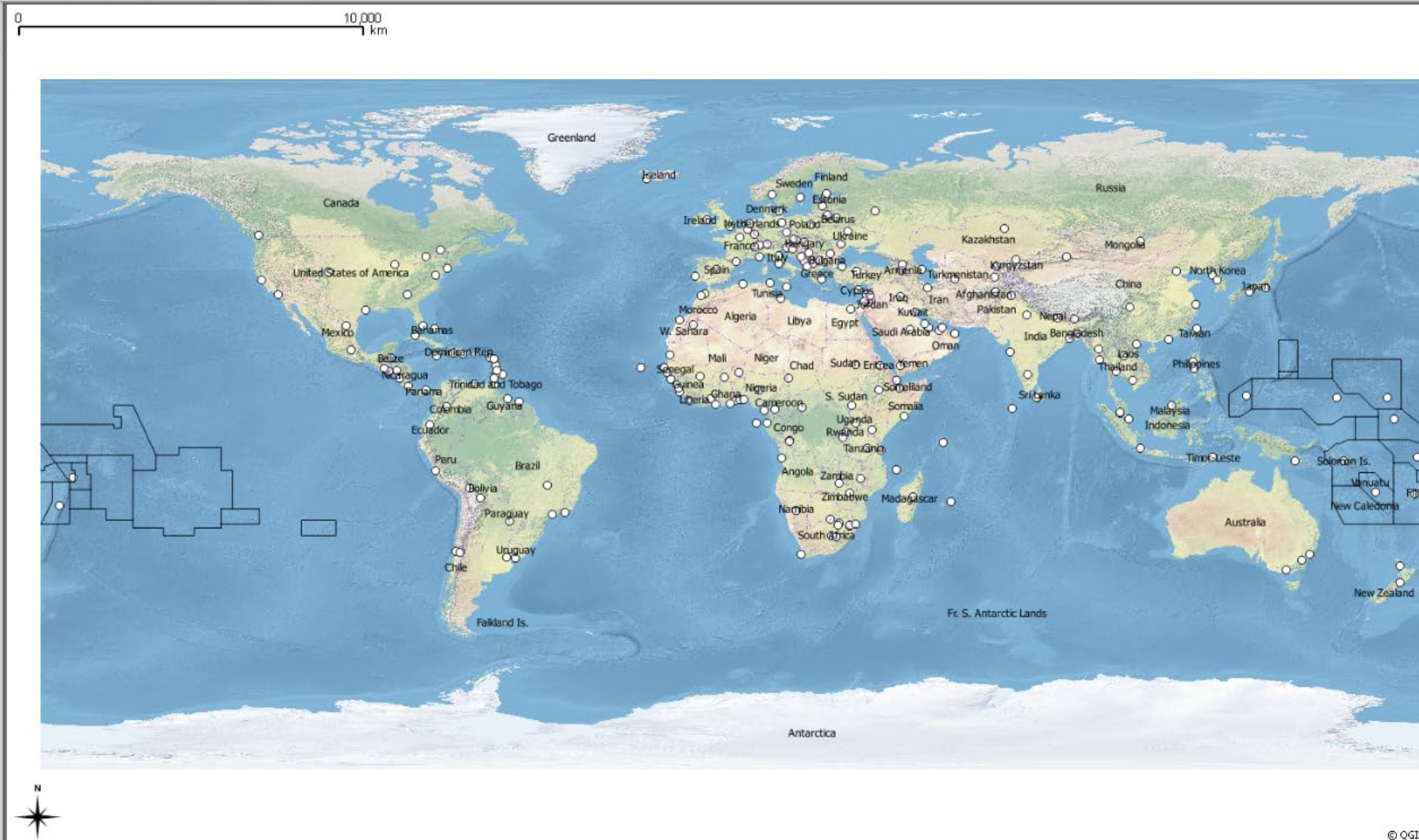
Stilizarea punctelor



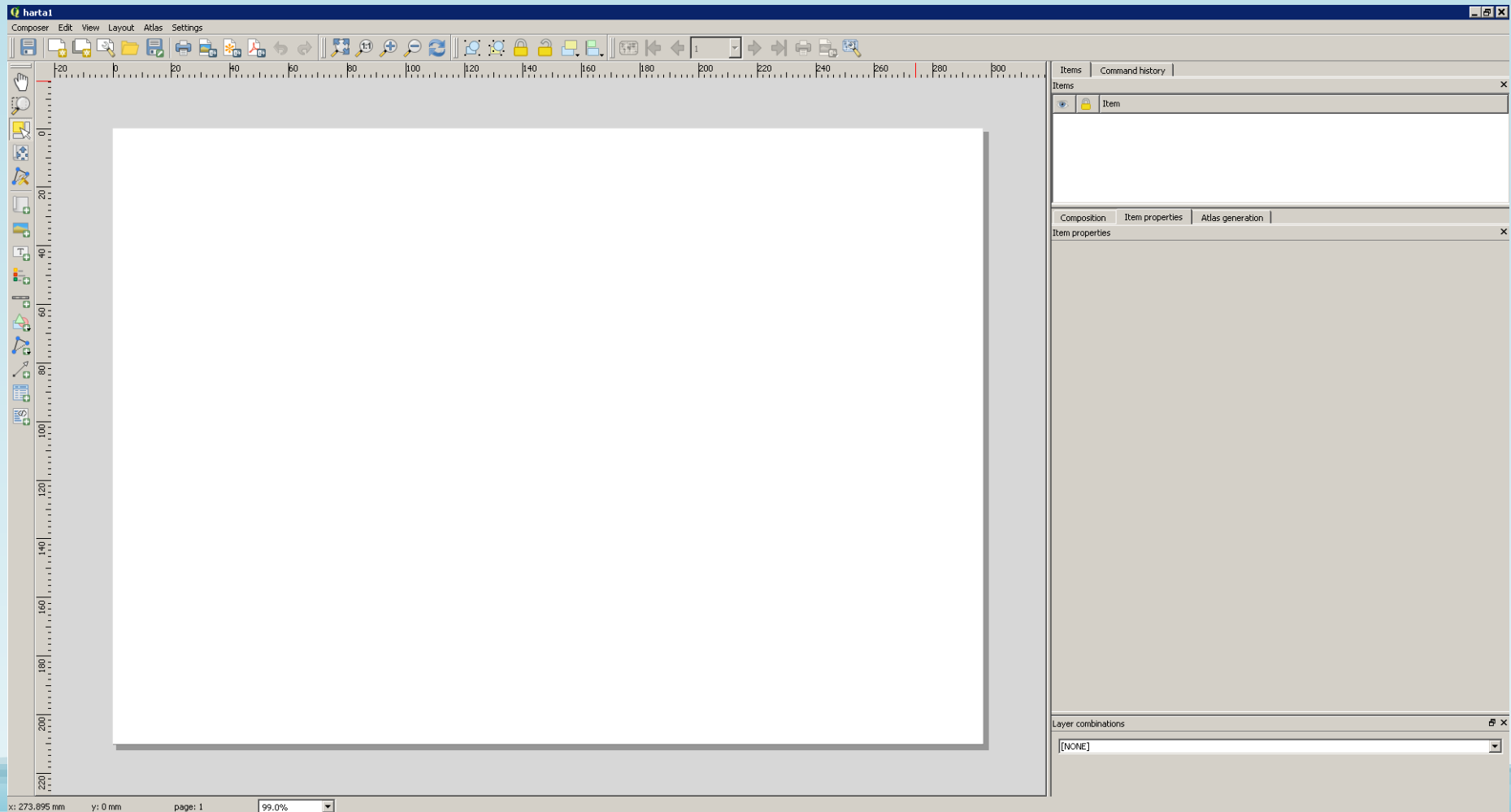
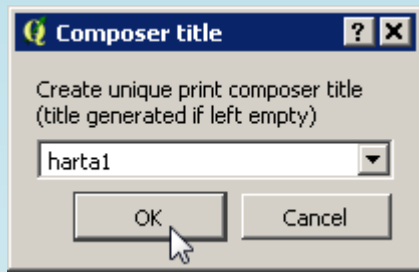
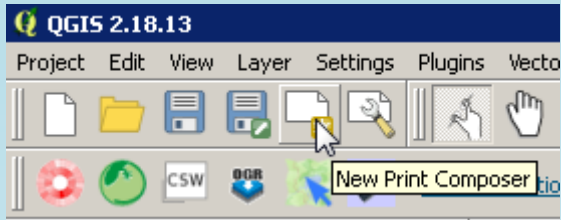


Layers Panel

- ne_110m_admin_0_boundary_lines_land
- ne_110m_admin_0_countries
- ne_110m_admin_0_pacific_groupings
- ne_110m_admin_0_tiny_countries
- ne_110m_populated_places
- NE1_50M_SR_W
- Google Hybrid



Compunerea hărții



Conținut:

- cadrul intern
- harta propriu-zisă
- scara
- legenda
- titlul

harta1

Composer Edit View Layout Atlas Settings

Items Command history

Items

- Item
- Map 0

Composition Item properties Atlas generation

Composition

▼ Page size

Presets A4 (210x297 mm)

Width 297.00

Height 210.00

Units mm

Orientation Landscape

▼ Resize page

Left

▼ Page settings

Number of pages

x: 314.651 mm y: 110.282 mm page: 1 68.6% 1 item selected

Composition Item properties Atlas generation

Item properties

Map 0

▼ Main properties

Cache [dropdown] Update preview

Scale 115127516

Map rotation 0.00 °

Draw map canvas items

▼ Layers

Follow visibility preset (none)

Lock layers

Lock styles for layers

▼ Extents

X min -189.000

Y min -109.595

Composition Item properties Atlas generation

Item properties

Map 0

▼ Grids

+ - ▲ ▼

Grid 1

Draw "Grid 1" grid

Grid type Solid

CRS change...

Interval units Map unit

Interval X 0.000000000000

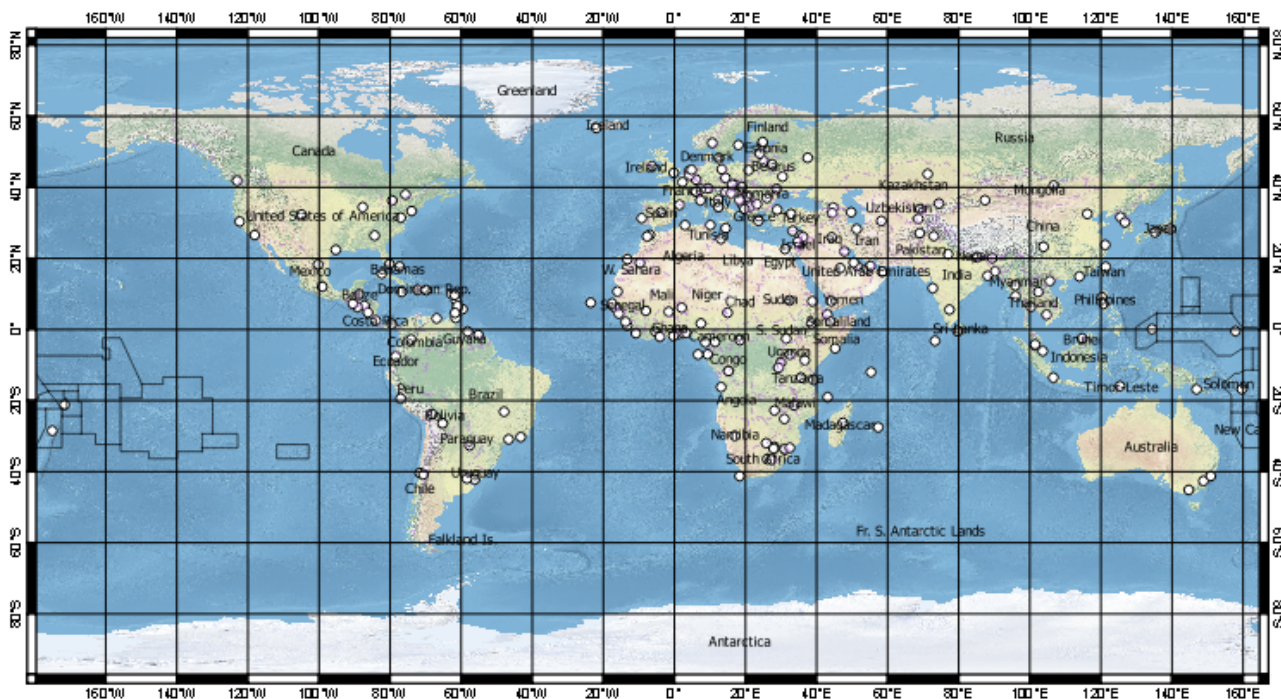
Y 0.000000000000

Offset X 0.000000000000

Y 0.000000000000



Harta geografică a Lumii



Items Command history

Item

- Harta geografică a Lumii**
- Map 0

Composition Item properties Atlas generation

Item properties

Label

▼ Main properties

Harta geografică a Lumii

Render as HTML

Insert an expression...

▼ Appearance

Font...

Font color

Horizontal margin

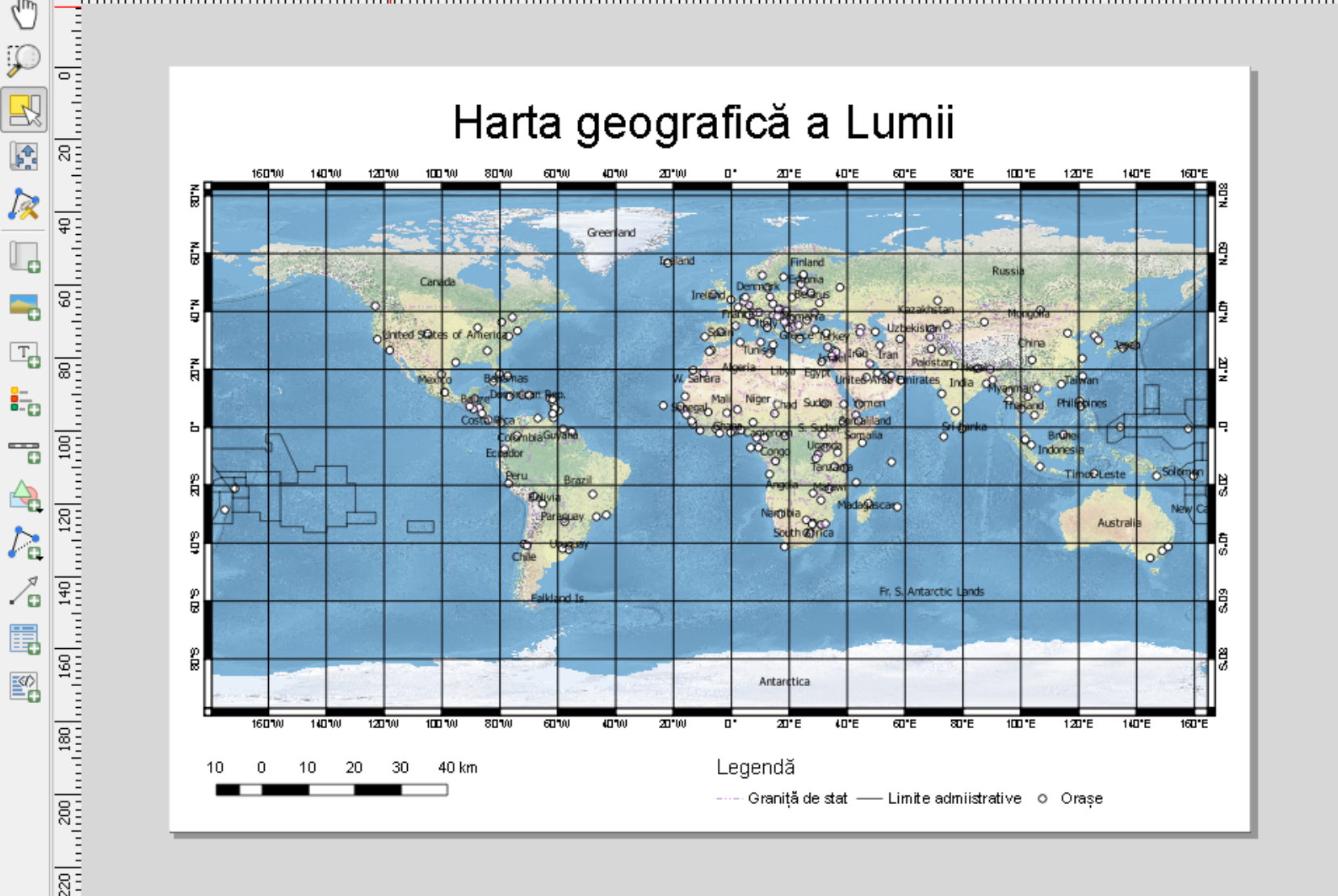
Vertical margin

Horizontal alignment

Left Center Right



120 140 160 180 200 220 240 260 280 300 320



Items Command history

Items

- Legendă
- <scale bar>
- Harta geografică a Lumii
- Map 0

Composition Item properties Atlas generation

Item properties

Label

Main properties

Harta geografică a Lumii

Render as HTML

Insert an expression...

Appearance

Font...

Font color

Horizontal margin 1.00 mm

Vertical margin 1.00 mm

Horizontal alignment

Left Center Right

- <http://www.geomorphologyonline.com/node/106>