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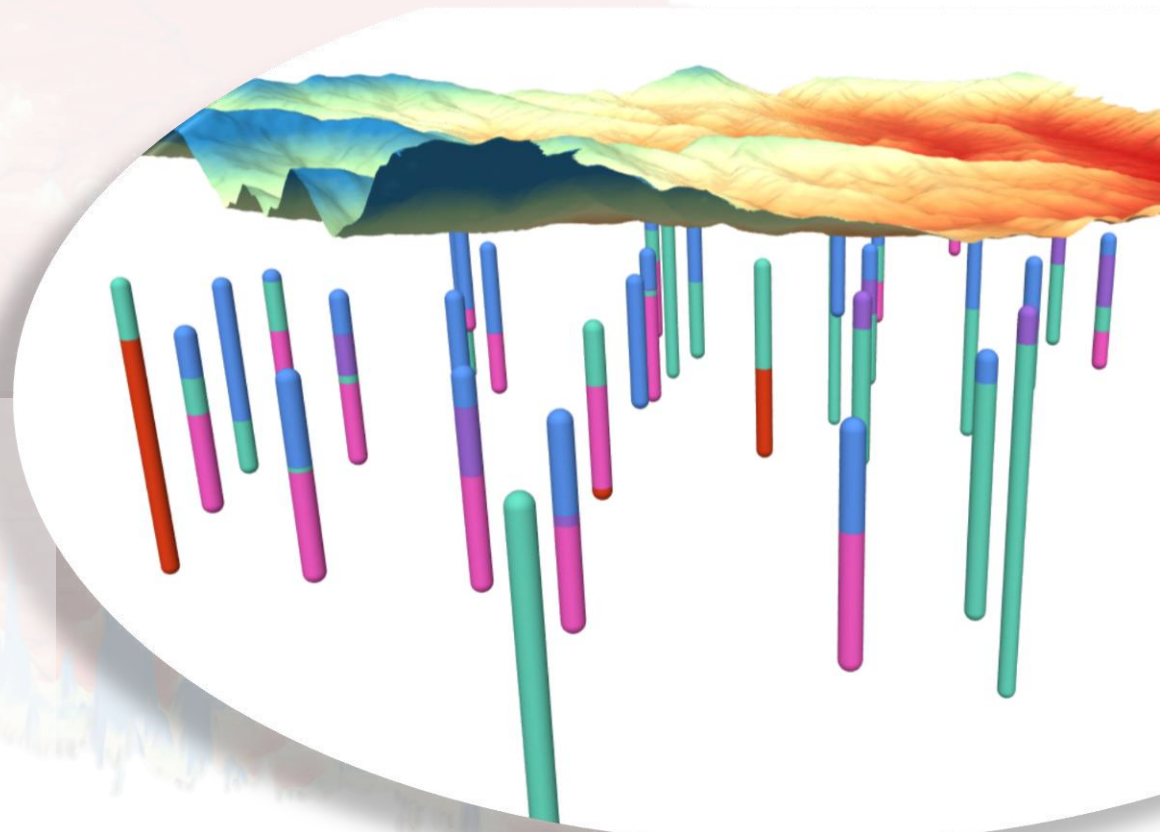
30 hours certified comprehensive virtual training on Comprehensive course on QGIS

(From Data Loading to Advanced Mapping)

On-site Training


- ❖ Detailed Course content: **Go to next pages!**
- ❖ Course duration: **On request.**
- ❖ Course Language: **English**
- ❖ Class timings: **On request.**
- ❖ Course fees: **On request.**

The content provided in this brochure can be modified and customised according to the requirement by the client.



Contact us

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Detailed content for this course

1. Fundamentals of GIS: Basic Spatial concepts like

- i. GIS
- ii. Why GIS?
- iii. Why prefer QGIS (Open source vs Licensed GIS sources)?
- iv. QGIS installation and interface
- v. Different data types and data formats
- vi. Geographic and Projected coordinate systems, UTM Zone and EPSG.
- vii. The concept of Georeferencing and its importance in real life applications
- viii. The concept of ground control points, their importance and Transformation settings.
- ix. The concept of Digitisation and Topology.
- x. The concept of mapping and map layers.
- xi. The process of map making, story telling and data visualisation.
- xii. Datum, map scale, map rotation etc.

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Detailed content for this course

2. Get acquainted with QGIS Graphic User Interface (GUI). Learn the detail of each tool and their purpose by practising the tools present in

- i. Menu toolbar
- ii. Project toolbar/Side toolbar
- iii. Layers panel
- iv. Browser Panel
- v. Locator toolbar
- vi. Status bar
- vii. Map canvas and Map Navigation Toolbar

3. Practically understand the data type and format loading using different ways/methods in the QGIS workspace and Create a "Map".

i. Data types

- a. Vector
- b. Raster
- c. Delimited text
- d. GeoPackage Database
- e. WMS/WMTS etc.

ii. Data Formats

- a. Shapefiles layer
- b. GeoPackage layer
- c. Temporary scratch layer
- d. Keyhole Markup Language (KML)

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Detailed content for this course

4. Get acquainted with Raster data

i. Loading Raster

ii. Raster Data Formats

a. GeoTIFF, JPEG, SRTM etc.

iii. Create beautiful raster maps through

a. Raster symbology

d. Contour Polygons

b. Raster enhancement

e. Histogram computation

c. Blend effects

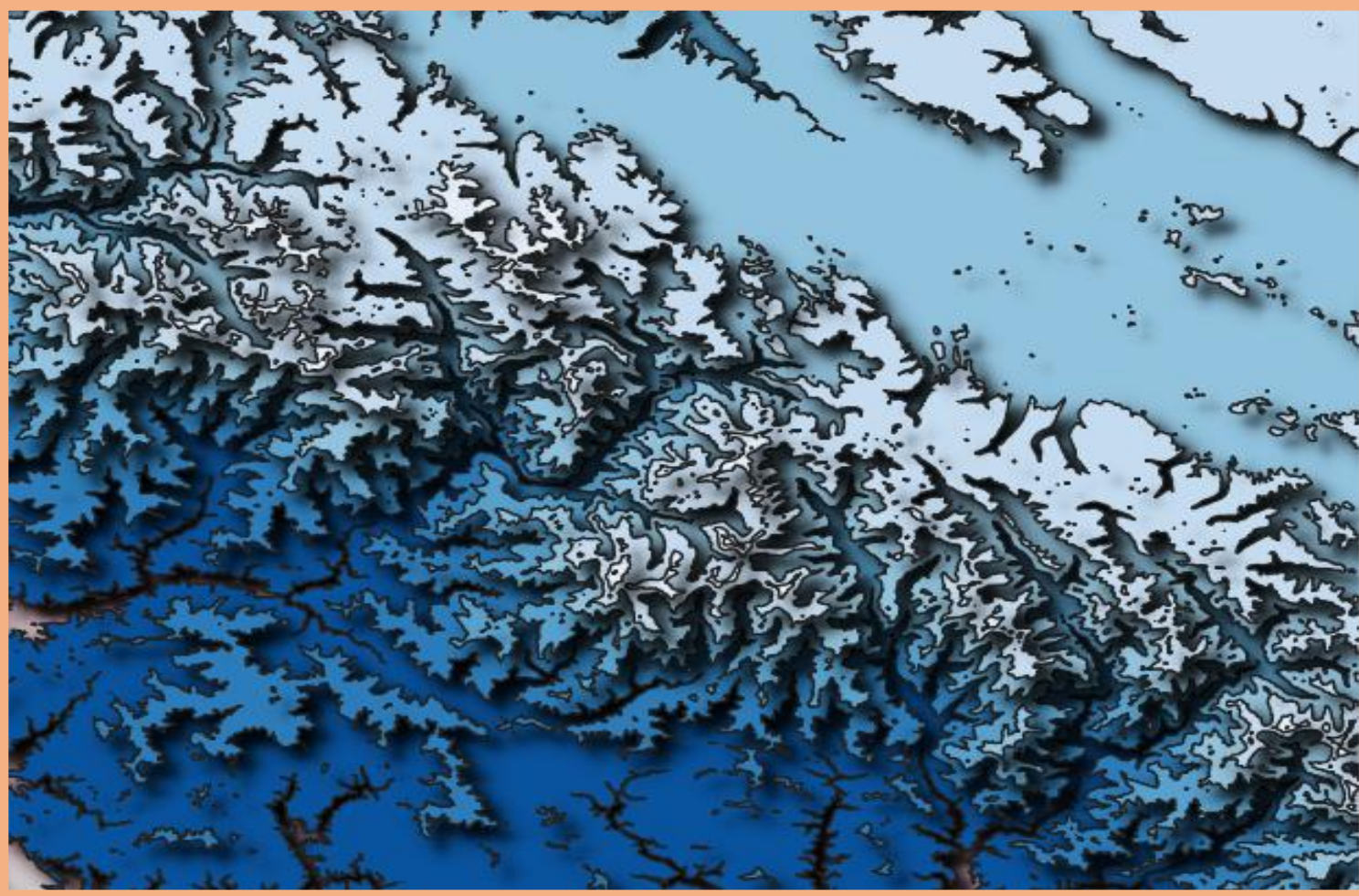
f. Raster shading (combined to multidirectional) and rendering

5. Georeferencing raster: Scanned/raster georeferencing using

a. Point to Point,

b. image to map

c. georeferencing by shape.

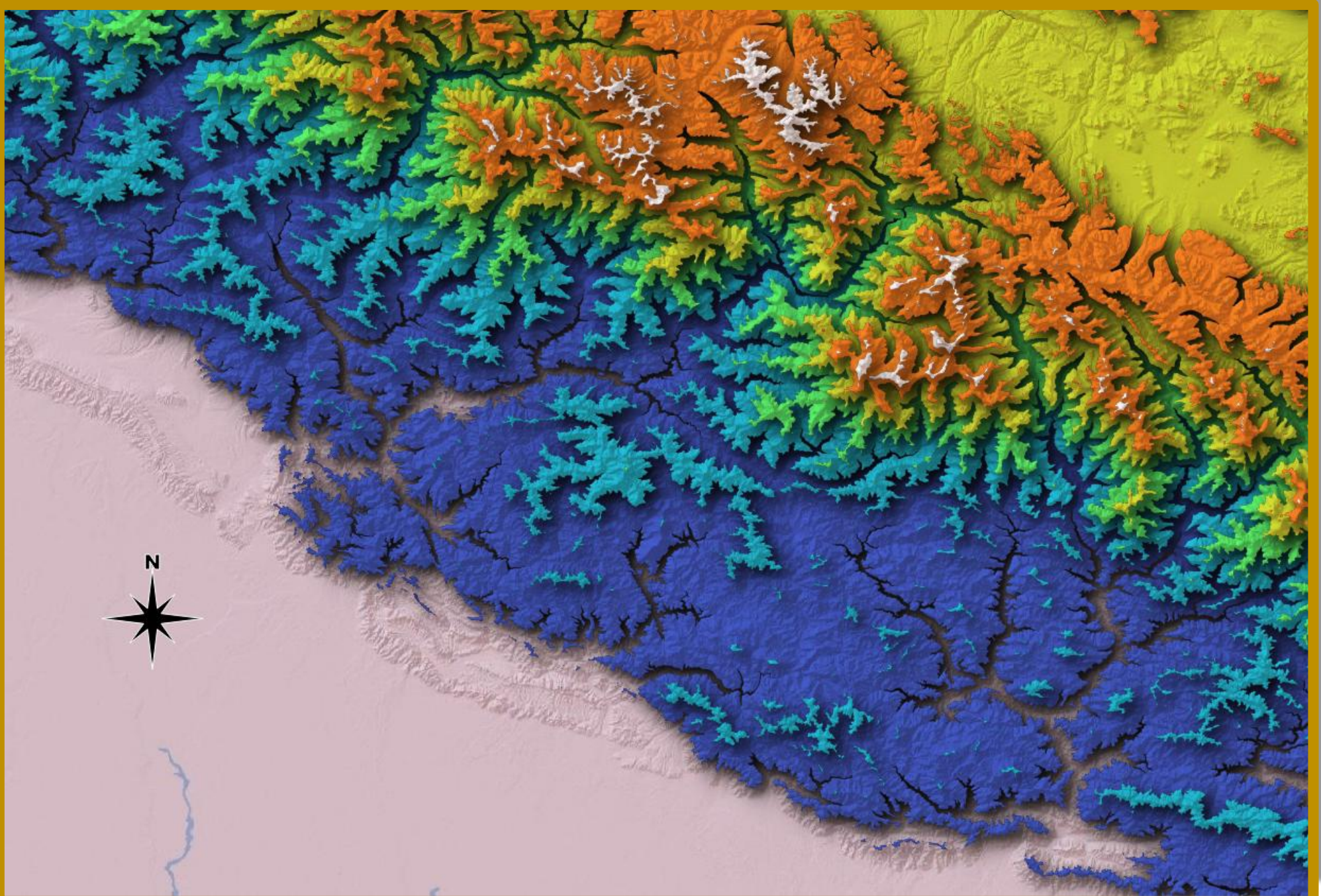


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Detailed content for this course

6. Raster and terrain analysis

- | | |
|-------------------------|---------------|
| a. Query Raster | g. Hillshade |
| b. Merge Raster | h. Slope |
| c. Clip Raster | i. Aspect |
| d. Project Raster | j. Contouring |
| e. Conversion to vector | k. Reclassify |
| f. Extraction | |



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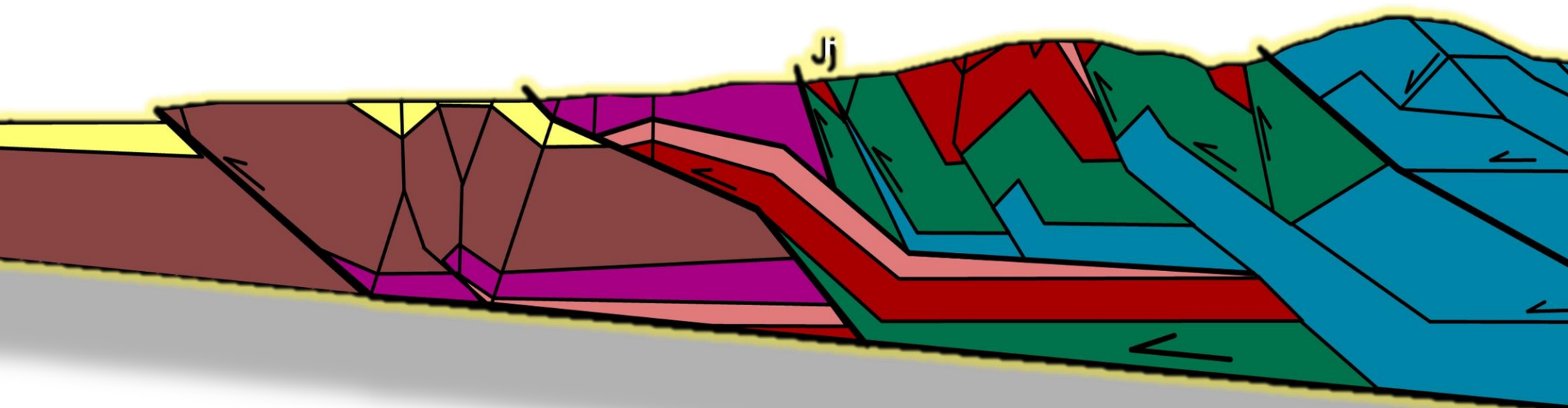
7. Interactive mapping and hands-on training through

i. Vector feature analysis

- a. Geoprocessing Tools (Clip, dissolve, Union etc.
- b. Geometry Tools (Count points, Nearest neighbour etc.
- c. Spatial Join, Query
- d. Analysis Tools
- e. Research tools
- f. Data management tools

ii. Vector data transformations and projections from geographic coordinate system to projected coordinate system

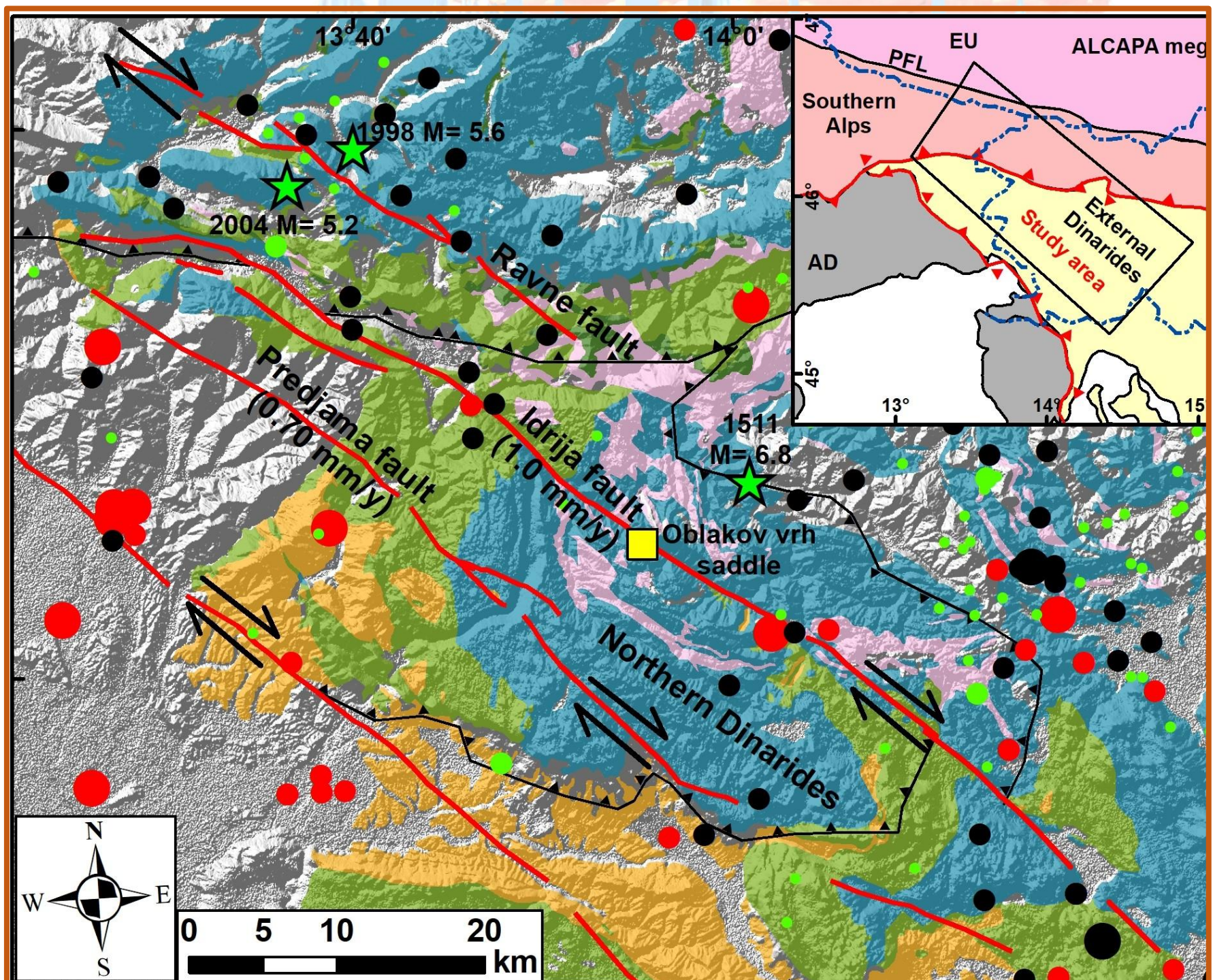
- a. Create your own Coordinate reference system
- b. Adding functionality with plugins.
- c. Digital elevation models



iii. Vector data (shapefile) creation through digitization

- Create polygon, polyline and point features
- Feature topology
- Snapping
- Convert one feature to another feature
- Vector editing/delete
- Split features
- Merge features
- Clip features

iv. Vector conversions to raster and other formats.

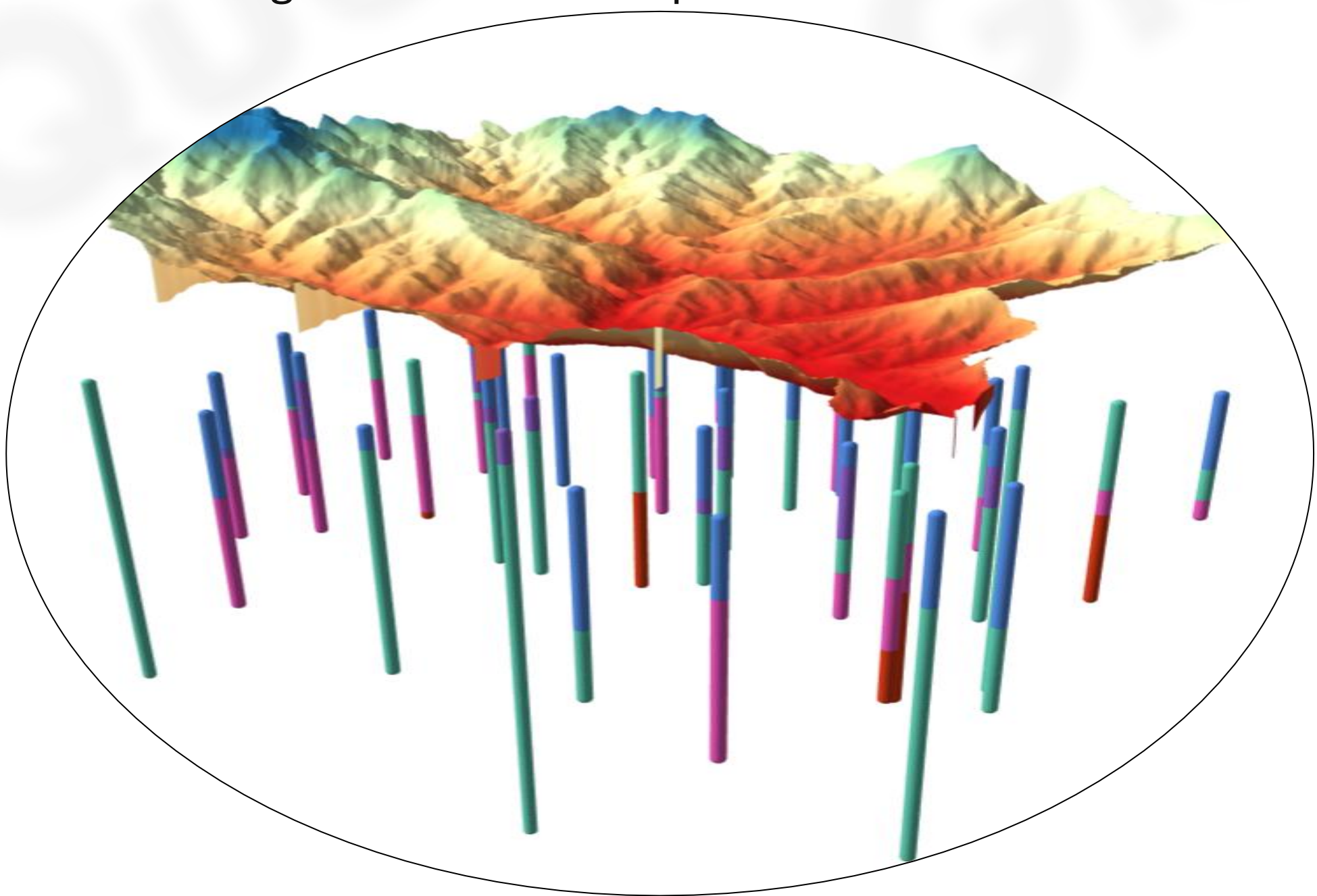


Module 7: Hydrological modelling

8. 3D visualization of well data and downhole lithology" in QGIS!

➤ DEM Raster Data Analysis

- ☐ "Geoscience" and QGIS2threejs Plugin installation.
- ☐ Calculating desurvey data.
- ☐ Calculating downhole geology.
- ☐ 3d visualization of downhole data with lithology.
- ☐ Cross-section generation and interpretation.



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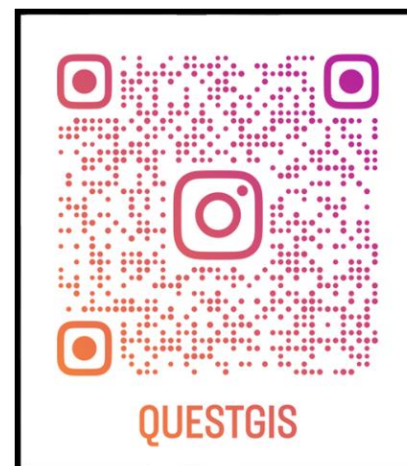
9. The process of data visualization through changing the “Symbology and its structure”.

i. Simple Fill (for each vector type, ex., Polygon, Polyline and Point features)

- a. Scale-based visibility
- b. Add Symbol layers
- c. Order Symbol levels

ii. Vector data classification

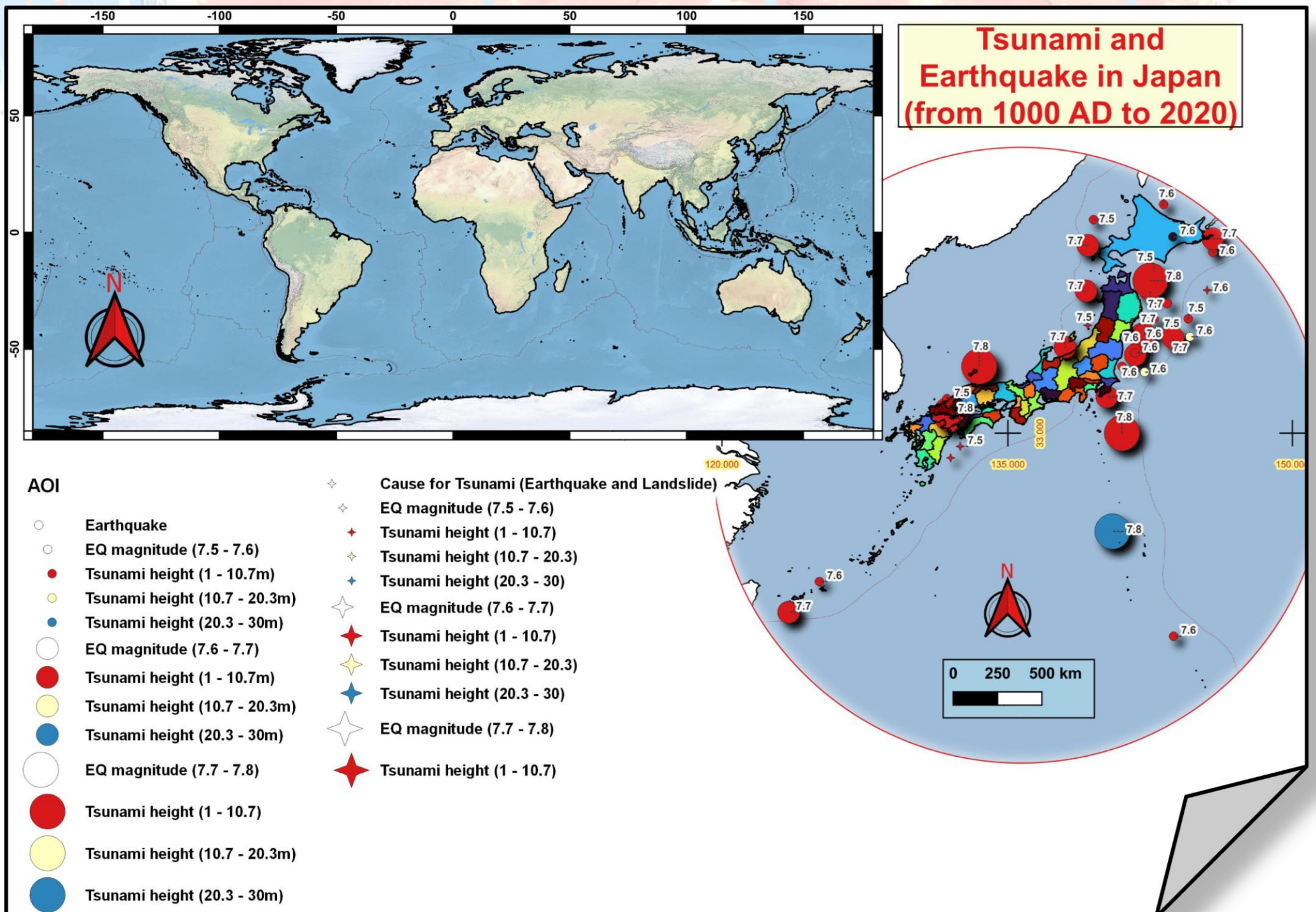
- a. Understanding of Layer Styling panel
- b. Simple Labels and Double labels
- c. Style Classification mode
- d. Categorical
- e. Graduated
- f. Rule-based
- g. Heat map
- h. Sized points



Detailed content for this course

7. Interactive mapping and hands-on training through

- i. Detailed map composing or layout generation using through editing process of
 - a. Legend and Patch
 - b. Grids
 - c. North arrow
 - d. Label
 - e. Scalebar



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Feel free to contact

For enquiry contact us at



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