



QGIS

Data Layer Classification (02.12)

William Raynolds

Jared Koller

ABOUT QGIS

QGIS is a free and open source Geographic Information System (GIS), or geodatabase, licensed under the GNU General Public License. QGIS runs on Linux, Unix, Mac OSX, Windows and Android and supports numerous vector, raster, and database formats and functionalities. QGIS users can view, edit, and analyze spatial and locational information through its free software toolkit.

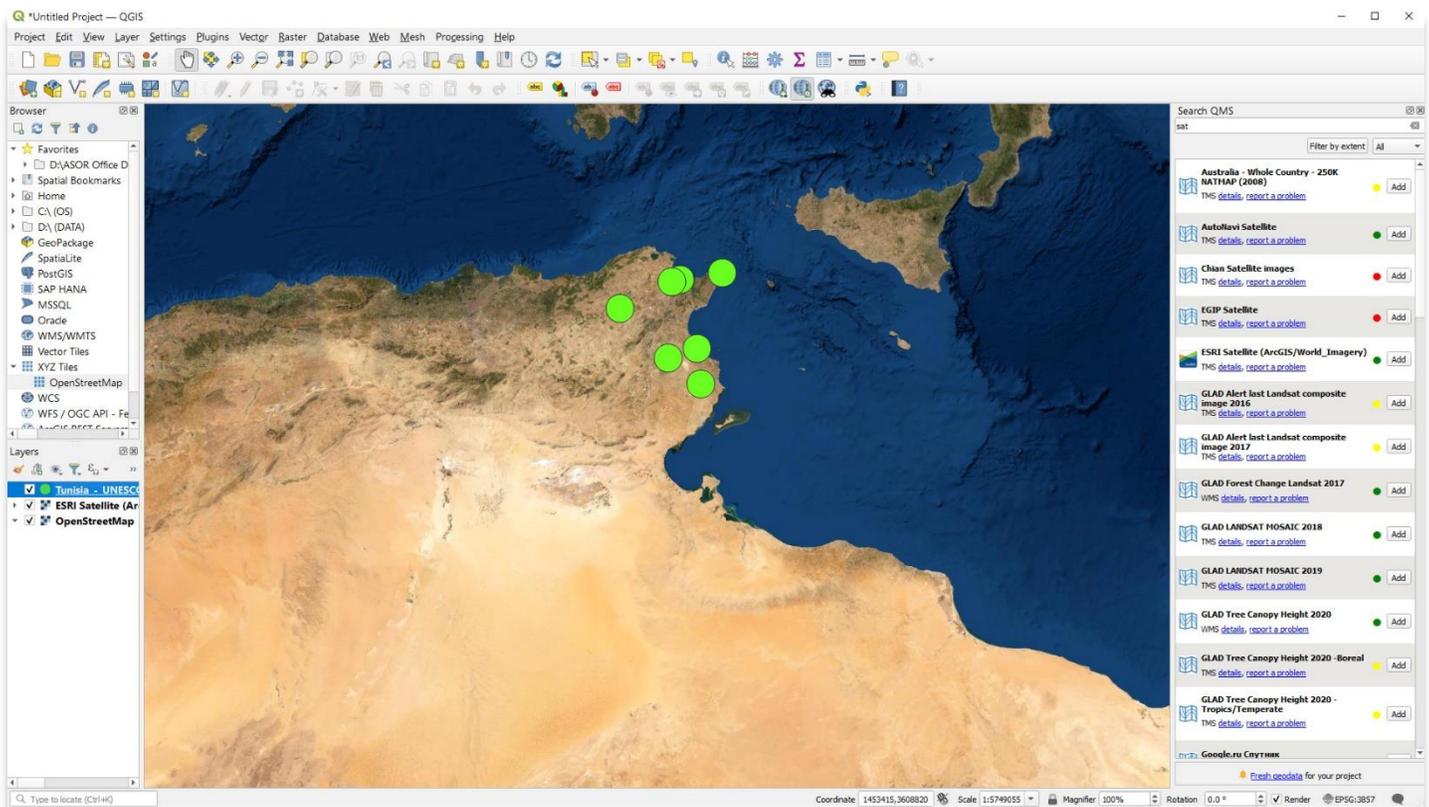
Download QGIS here: <https://qgis.org/>

Documentation: <https://docs.qgis.org/3.16/en/docs/index.html>

This **ASOR Tutorial (02.12)** will cover how to classify data layers in QGIS. Classifying vector data allows you to assign different symbols to features (different objects in the same layer), depending on their attributes. This allows someone who uses the map to easily see the attributes of various features.

CLASSIFYING DATA LAYERS

1. In [ASOR Tutorial 02.10 \(Editing Data Layers\)](#), you learned how to change the symbology for a single data layer. This is useful when everything within the dataset (points, lines, or polygons) can be displayed using the same color. However, you may wish to highlight specific differences within a single data layer. Classifying layers are a way to show differences in data visually.



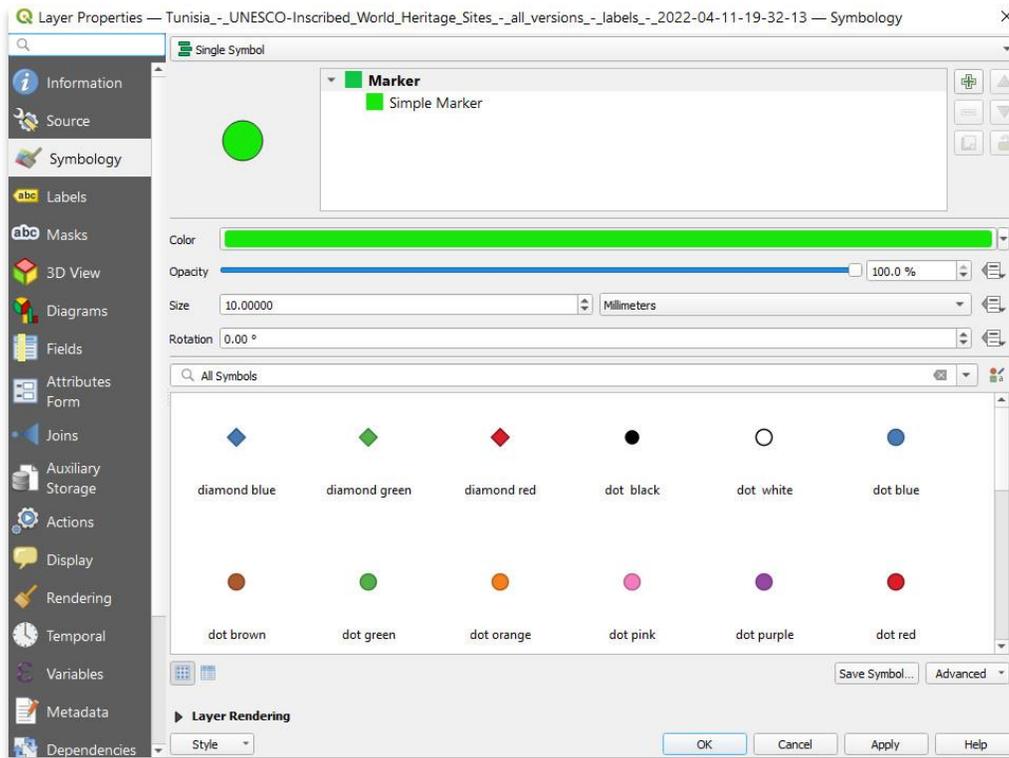
2. As an example, we will use a sample dataset of UNESCO-inscribed cultural heritage sites in Tunisia. The information used in this sample data is all freely available from UNESCO’s website: <https://whc.unesco.org/en/statesparties/tn>.
 - a. To create the sample project, follow ASOR Tutorials 01.02 through 01.08 for steps on how to create a new Kobo project and how to collect/add data to a Kobo project.
 - b. The UNESCO dataset shown below can be recreated by following [ASOR Tutorial 01.06 \(Collecting Data on an iPhone\)](#) using a desktop computer rather than through an iPhone.

The screenshot shows the KoboToolbox interface for a project titled "Tunisia - UNESCO-Inscribed World Heritage Sites". The interface includes a sidebar with navigation options like "NEW", "Deployed", "Draft", "Archived", "Downloads", and "Map". The main content area is divided into tabs: "SUMMARY", "FORM", "DATA", and "SETTINGS". The "DATA" tab is active, displaying a table with 7 results. The table has columns for Site Name, Description, Longitude, Latitude, Date of Inscription, and Criterion. The data is as follows:

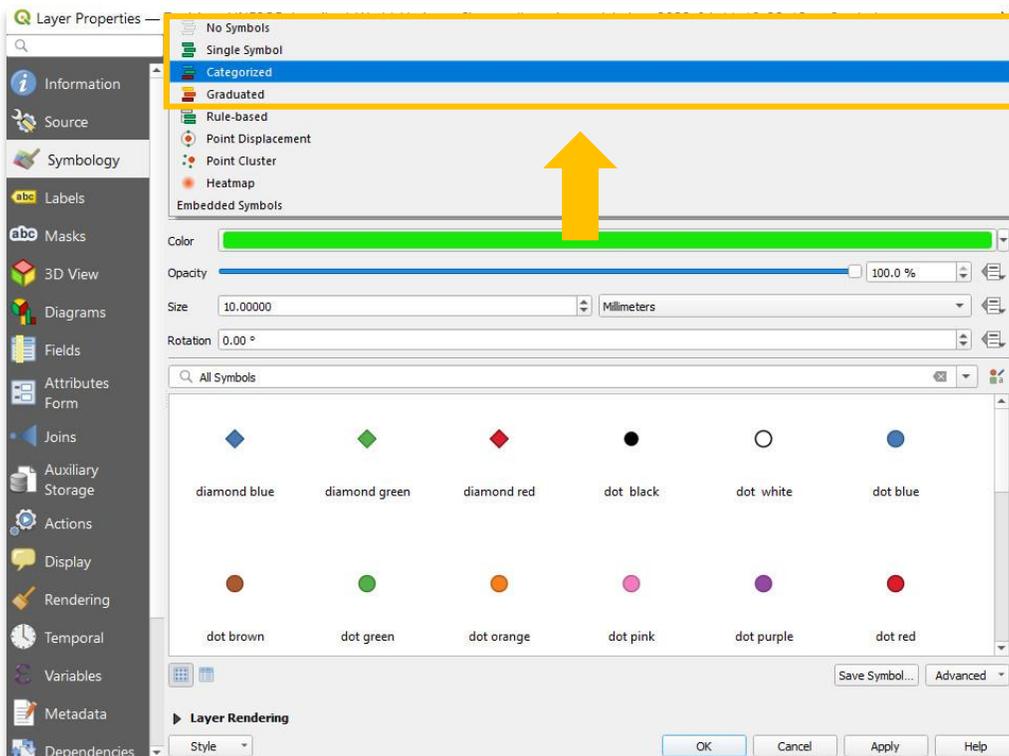
Site Name	Description	Longitude	Latitude	Date of In...	Criterion
Punic Town of ...	This Phoenicia...	11.09917	36.94639	1985	iii
Medina of Tunis	Under the Almo...	10.16667	36.81667	1979	ii, iii, v
Medina of Sous...	Sousse was an ...	10.63861	35.82778	1988	
Kairouan	Founded in 670...	10.10389	35.68167	1988	i, ii, iii, v, vi
Dougga / Thugga	Before the Rom...	9.22028	36.42361	1997	ii, iii
Archaeological ...	Carthage was f...	10.32333	36.85278	1979	ii, iii, vi
Amphitheatre of...	The impressive ...	10.70694	35.29639	1979	iv, vi

3. One of the categories included in the UNESCO dataset is **Criterion**. UNESCO lists 10 official criteria to justify the inclusion of any UNESCO applicant: <https://whc.unesco.org/en/criteria/>. We can see in the dataset above that some cultural heritage sites in Tunisia share the same UNESCO criteria (Criteria vi). The following steps will show you how to visually present this dataset in QGIS so that heritage sites are separated by UNESCO criteria.

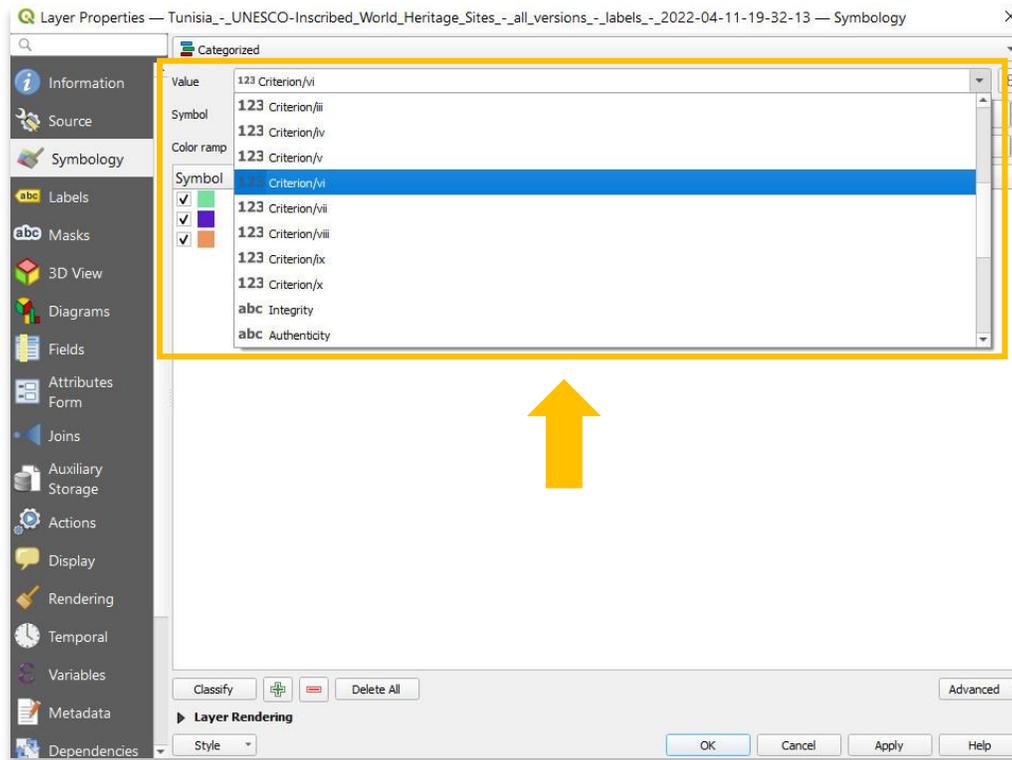
4. First, export your dataset from [Kobo \(ASOR Tutorial 01.08\)](#) and then import it to [QGIS \(ASOR Tutorial 02.08\)](#). Once in QGIS, double-click on the Kobo layer file in the **Layers Panel** to bring up the **Properties** pop-up. Ensure that the **Symbology** tab is selected.



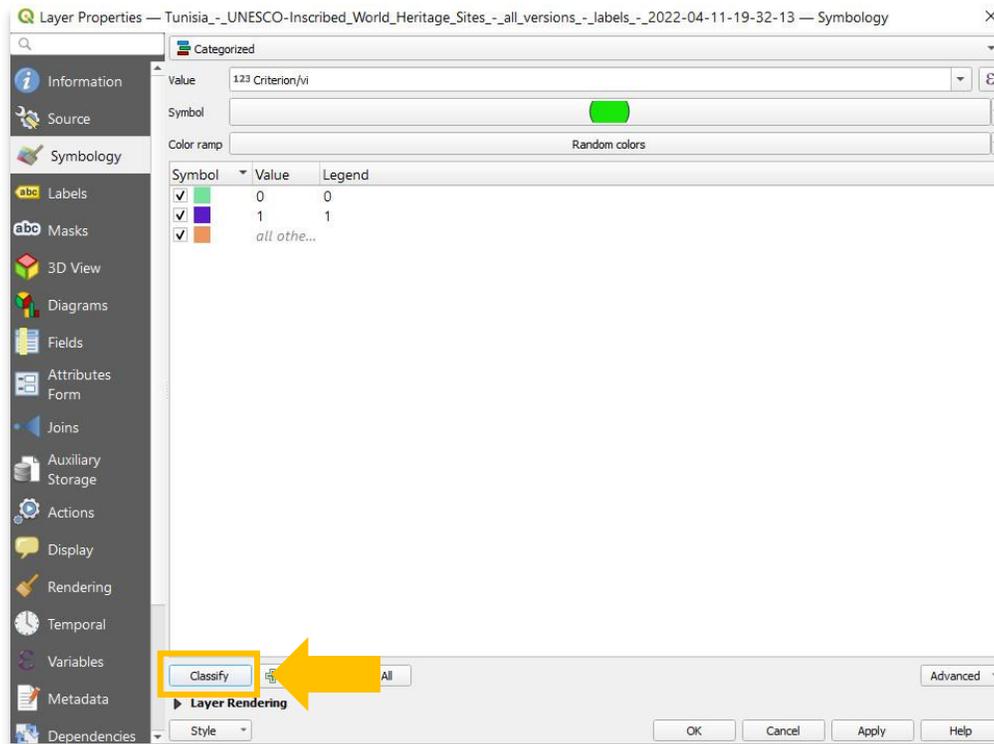
5. Choose **Categorized** from the dropdown menu located near the top of **Layer Properties**.



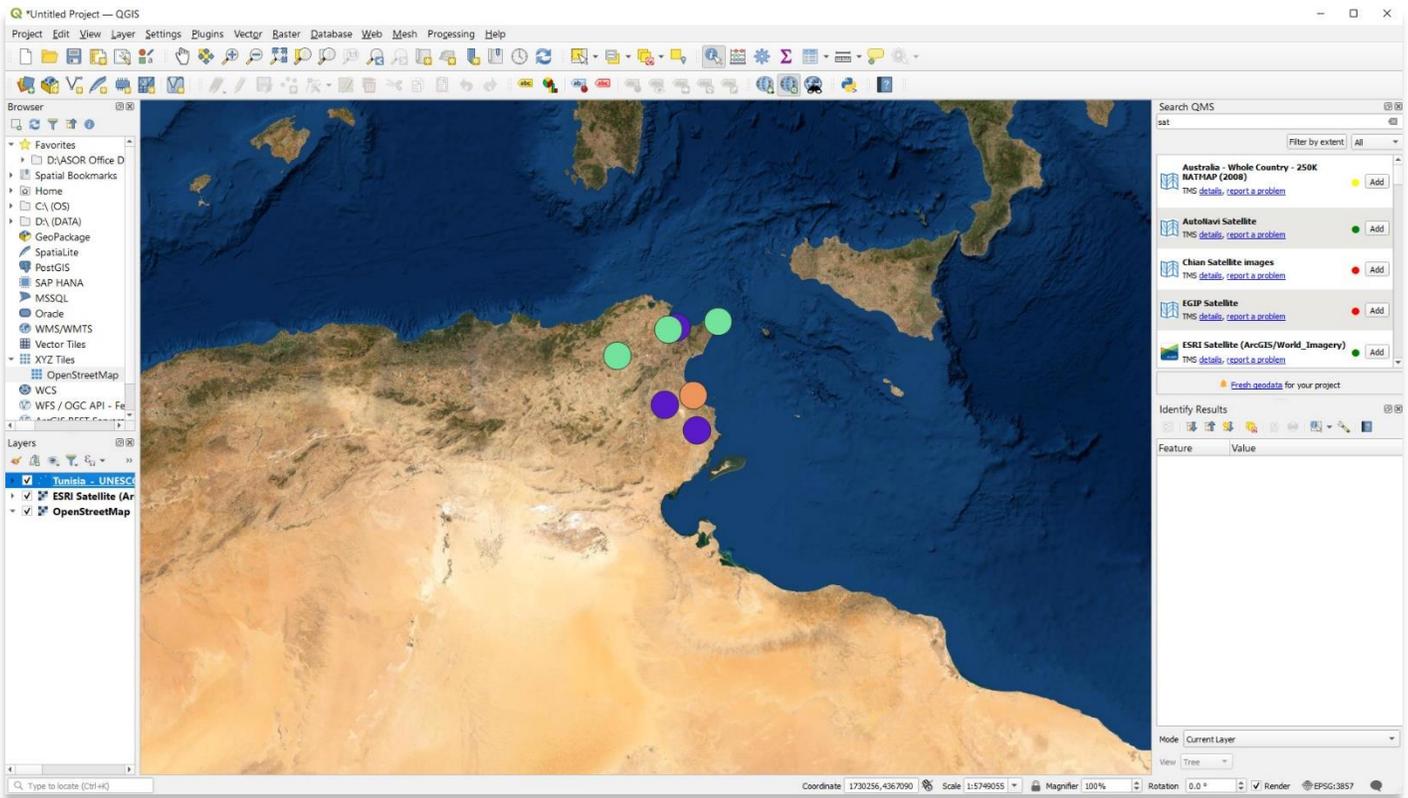
6. Next choose the **Value** (column in your CSV file) that you wish to display differently among your data. In this case, **Criterion/vi** is selected because numerous UNESCO-inscribed sites in Tunisia used Criteria vi as justification for inclusion among recognized World Heritage Sites.



7. Finally, select the **Classify** button near the bottom left of **Layer Properties**.



8. Close **Layer Properties** to view your dataset. You will see sites display in different colors depending on if they included Criteria vi in their UNESCO application.



For more detailed information on anything within this tutorial, please visit QGIS Documentation:

<https://docs.qgis.org/3.16/en/docs/index.html>



VIEW ALL ASOR TUTORIALS FOR FREE

asor.org/chi/chi-tutorials

