UNIVERSITY OF COPENHAGEN

DEPARTMENT OF GEOSCIENCES AND NATURAL RESOURCE MANAGEMENT

FOREST AND LANDSCAPE COLLEGE

QGIS – 2.14.2 – April/2016

Colorize DTM and create a Hillshade

When opening a Terrain- or Surface model they are in black/white and make no sense 'reading'. In this tutorial the aim is to colorize a terrain model (DTM) and to create a Hillshade from the DTM.

Open the virtual raster for **jyllinge.**

In this file there is only one band with data. The values in the band are z-coordinates measured in meter.

Colorize pixels

Click **Add Raster layer** 
Choose **Jyllinge.VRT**

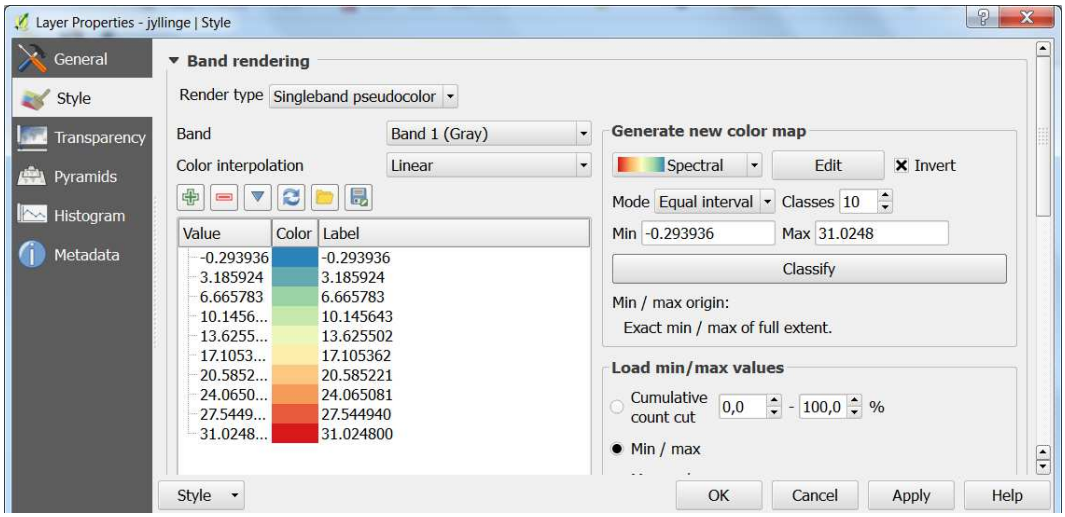
Double Click on the layer >Choose **Style**

Change from **Singleband Gray** to **Singleband Pseudocolor**

Choose in **Generate new color map>Spectral**

Enable **Invert**

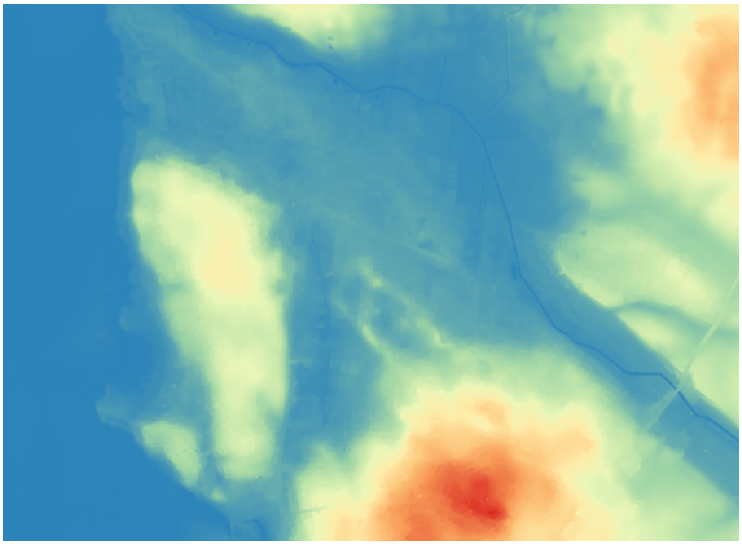
Mode change from **Continous > Equal interval**



Classes to **10**

Click **Classify**

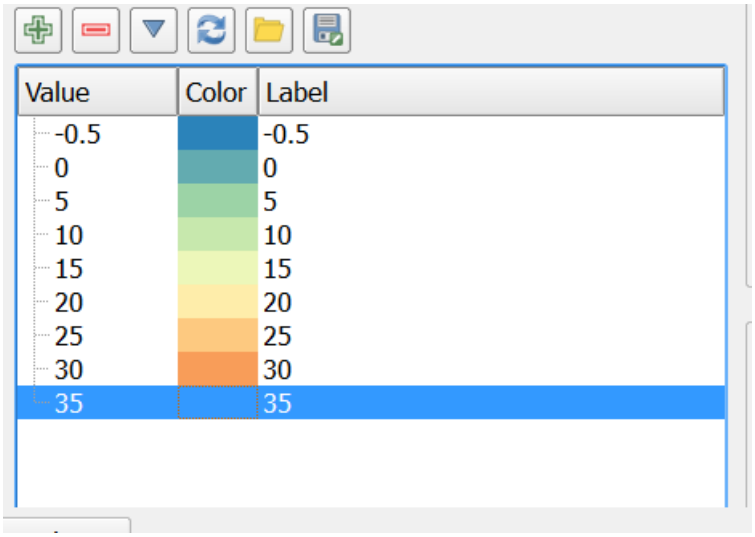
Click O**K**



In this example land are colored blue.

In the following the color has to be edited.

Double Click at the layer in the **Layer Panel**



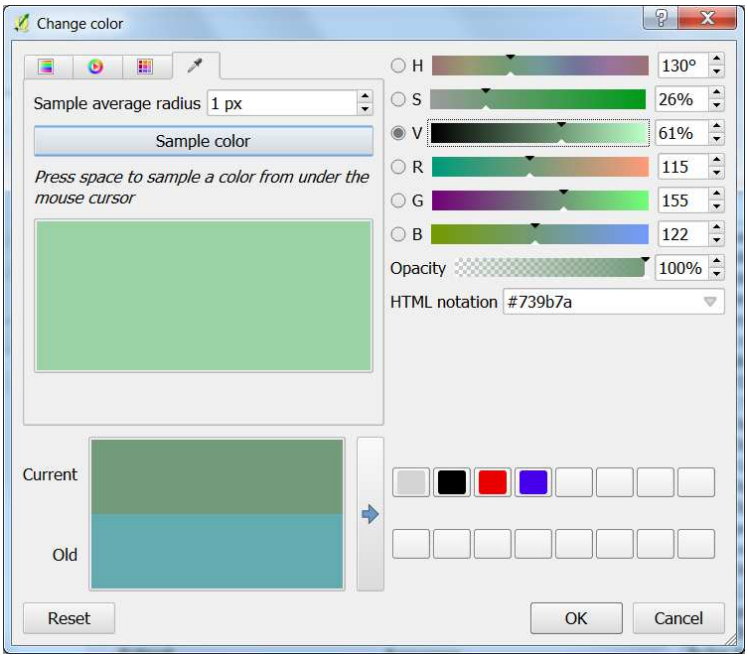
Double Click at the first number in the column **Value**.

Write **-0.5**. Repeat in the **Label** column.

Edit the numbers as shown in the figure

Delete the last entry by click on 

Finish by click **OK**



There is still too much blue in the value for 0.

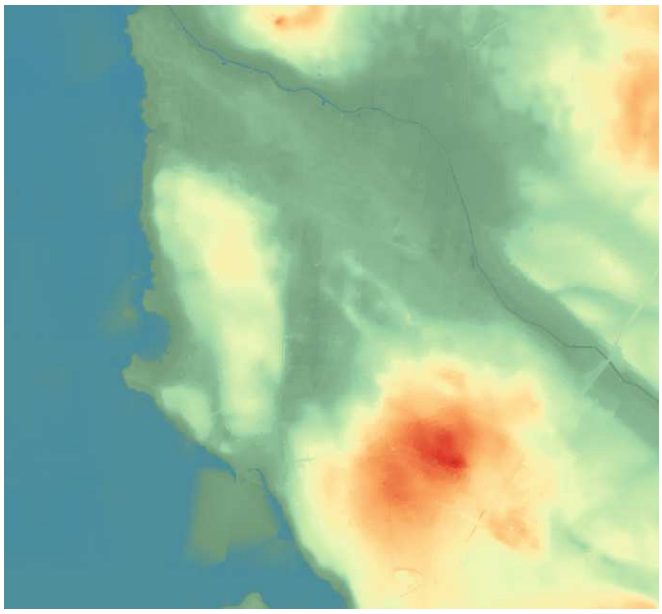
Enter the dialog again.
Double click at the color for 0

Pick a sample color from the next color (5)

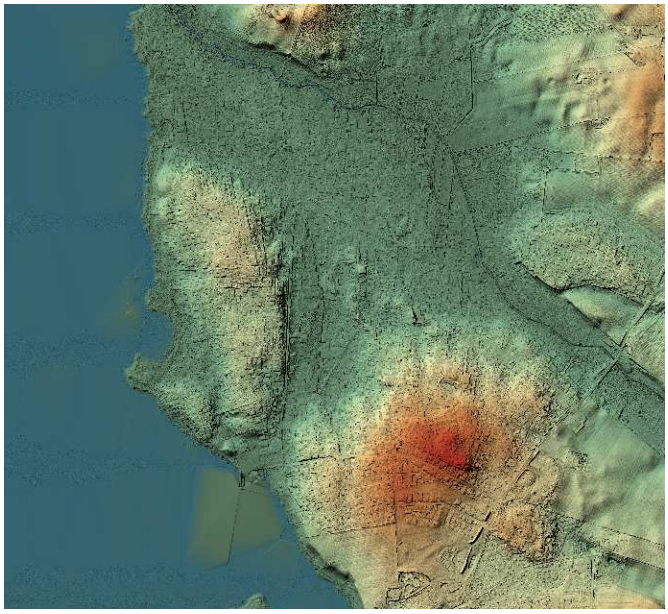
Drag the color darker in the **V**
Click **OK**

Change the value to **0.3**
Only for the value.
Click **OK**

Create a Hillshade

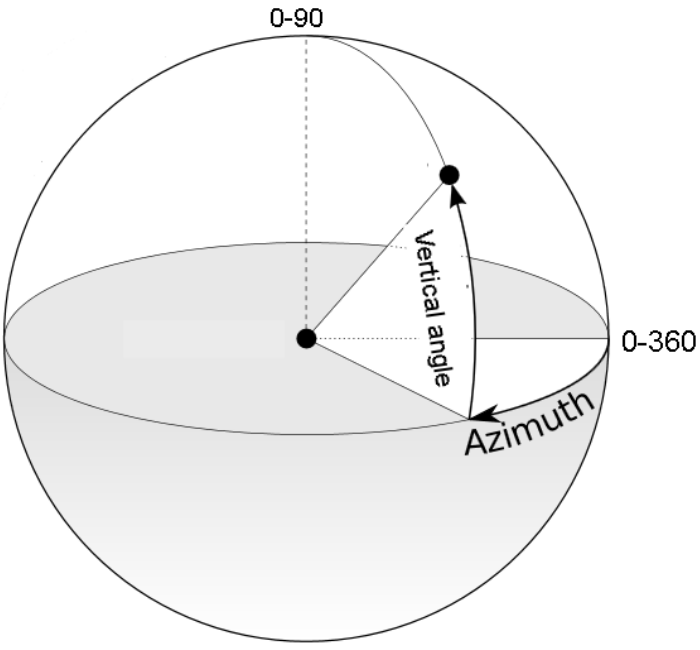


DTM



DTM and Hillshade

The DTM is shown in pastel color. To better being able to interpret the map, the next step is to create and combining with a Hillshade.



A Hillshade is a light setting over the terrain.

Azimuth measures in the angle from where the light comes from in the plane. (0-360 degrees)

Vertical angle is the hight the light comes from (0-90 degrees)

Activete the **Processing** toolbar

In the **Search panel** write **Hillshade**

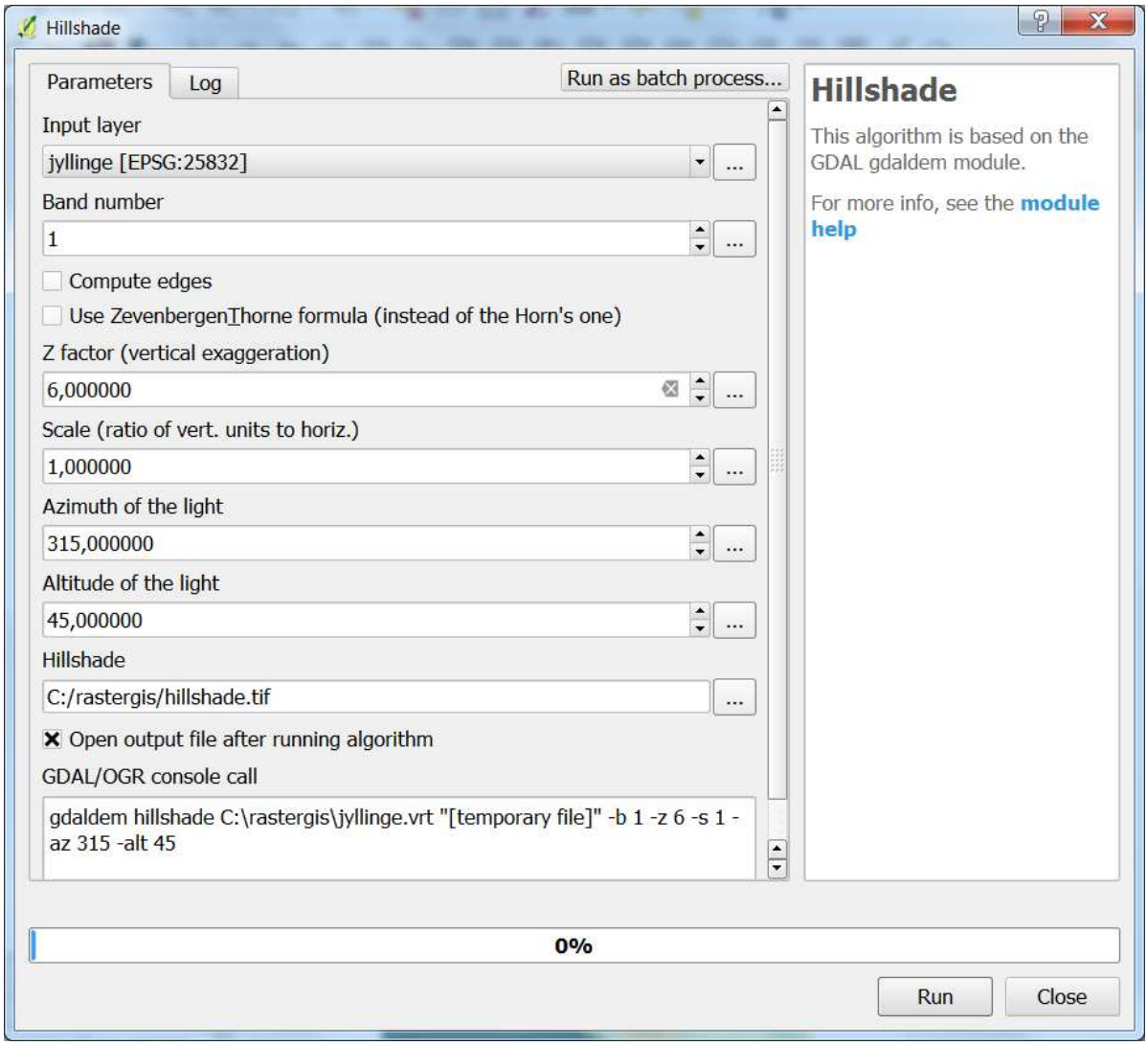
Double click at the **GDAL Hillshade**

Input Layer is the terrain model **jyllinge**

Z-factor is 6

Hillshade click ... Give a filename

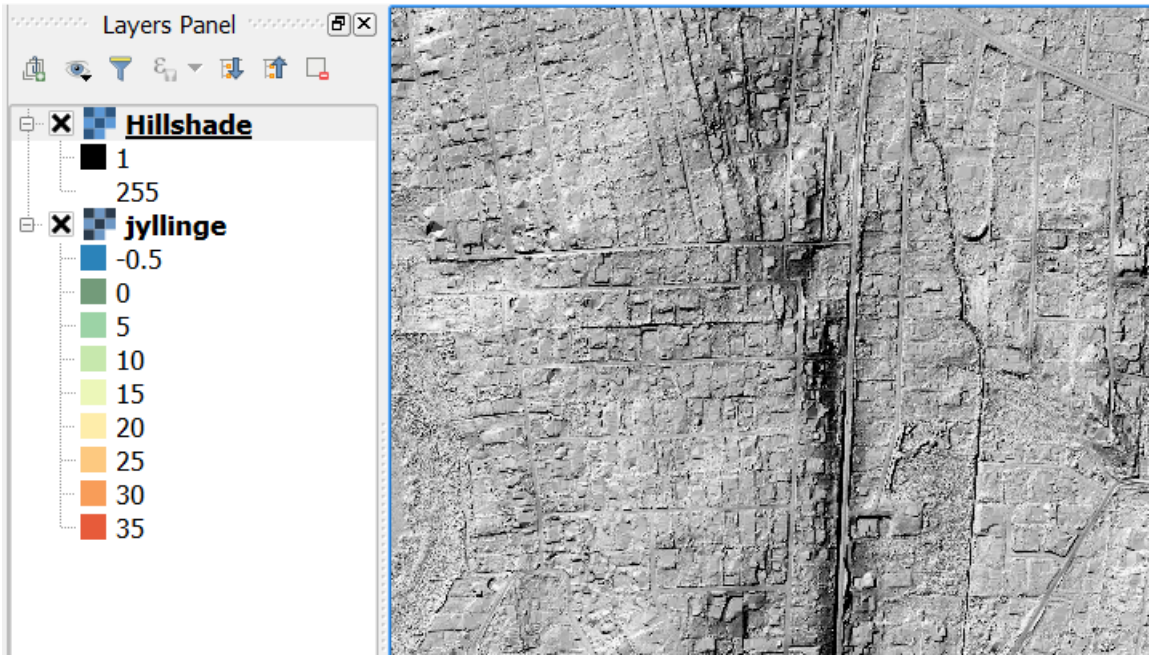
Click **Run**



For more explanation about the Hillshade – click ***Help in the right column***

The result is a grey image

Values in **Layer Panel** for the Hillshade is just color values for black/white



Double click at the Hillshade>**Style**

Change **Color rendering** from **Normal** to **Multiply**

Click **OK**