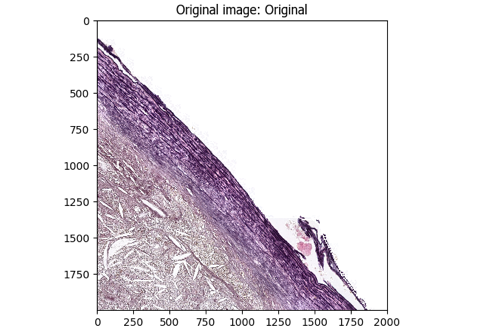
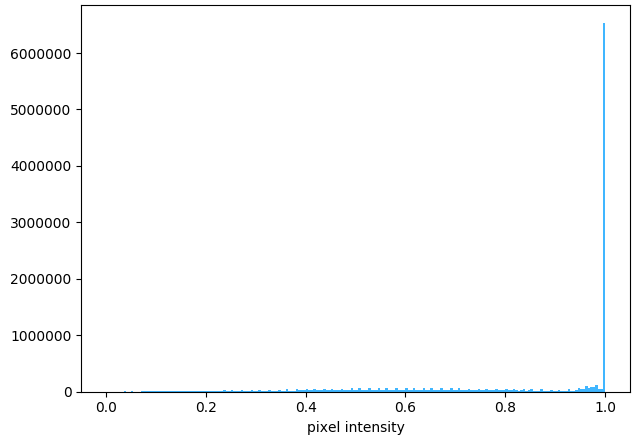
**A.**

**The EVG CellProfiler pipeline workflow.**

***[A].*** The original image (left) is masked using PathProfiler Tissue Segmentation Unet and used as input by CellProfiler 4.2.6; the graph (right) shows the tonal distribution in the digital whole-slide image on a RGB scale.

***[B].*** The input image is converted to a gray scaled image (left); the graph (right) shows the tonal distribution in the gray scaled image.

***{C].*** The gray scaled image is inverted, *i.e.* non-tissue will become black (left); the graph (right) shows the tonal distribution after inverting.

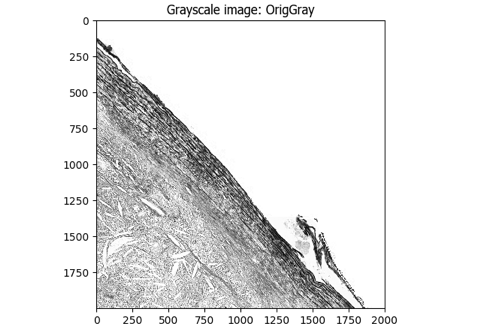
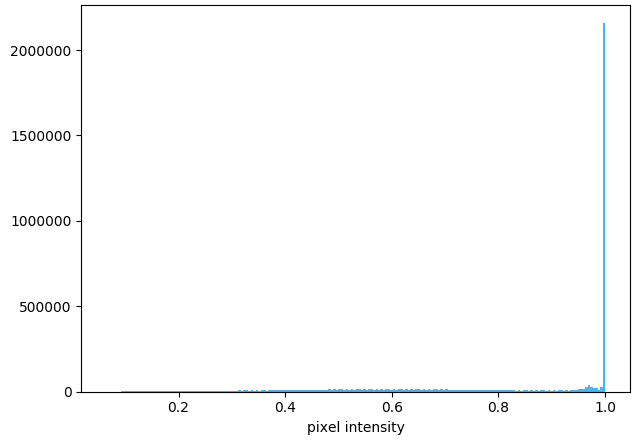
***[D].*** The tissue area is identified, as demarcated by the green line in the left image; the total tissue area size is calculated in pixels (right image) and tabulated (table).

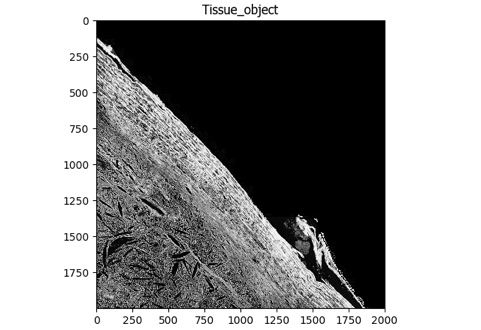
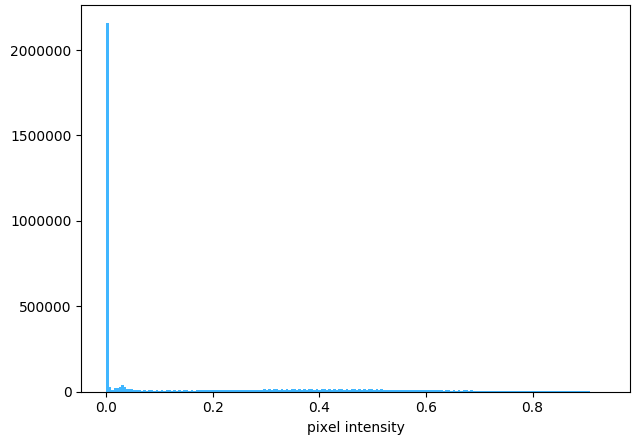
***[E].*** The colors, *i.e.* stains, are unmixed using the original image (left): EVG (middle), and EVG\_IDENTIFYING (HE, right). The graph (right) shows the tonal distribution of the EVG\_IDENTIFYING image.

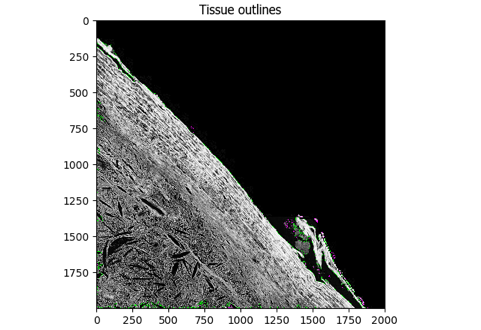
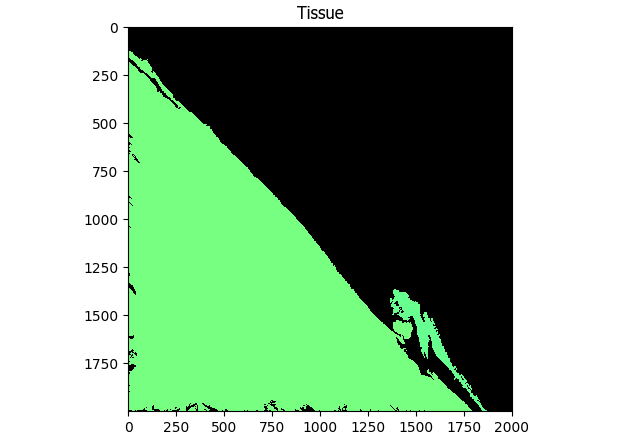
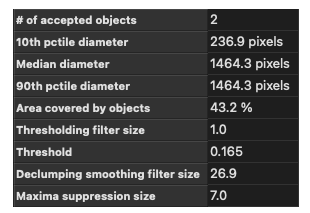
***[F].*** The EVG-positive objects, *i.e.* elastic tissue, are identified, white areas in the left image; the EVG-positive objects are demarcated by a green line in the middle image, areas that are excluded due to size (minimal size 1 pixels) are demarcated in magenta; the right image shows all the identified EVG-positive objects in random colors; the total number of identified objects is calculated and tabulated (table).

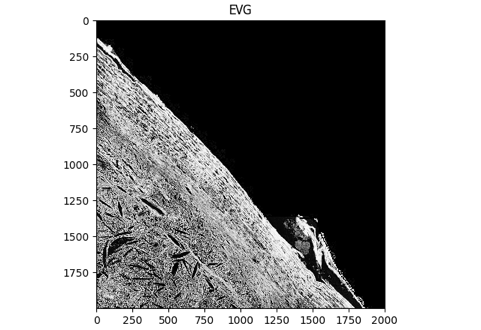
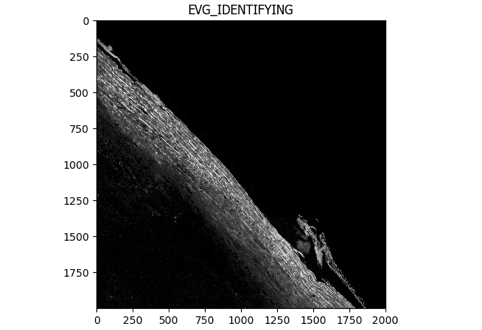
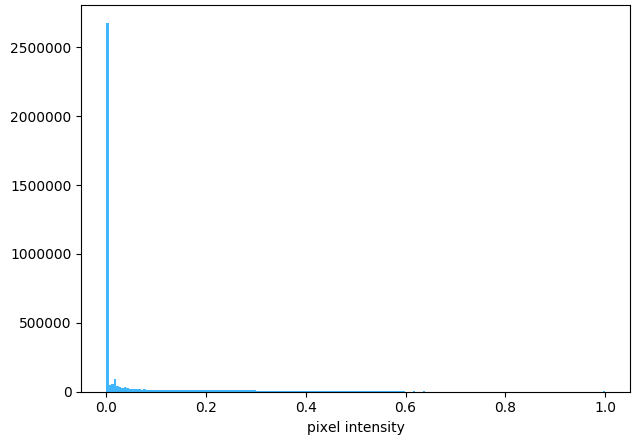
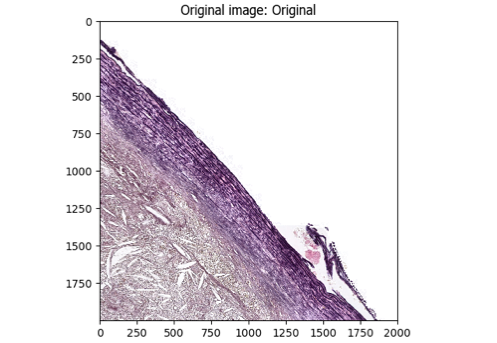
***[G].*** Finally, the data for each tile are saved in a comma-separated table, including meta-data such as tile positions, image location, object counts (there could be multiple patches of stained areas or tissue). The original image (top-left) is used to outline the EVG-positive objects. The tissue area (green), and EVG-positive objects (red) are all demarcated in the top-right image. The table (bottom-right) shows the areas occupied by each object class.

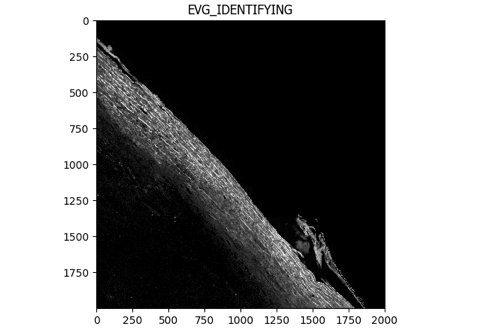
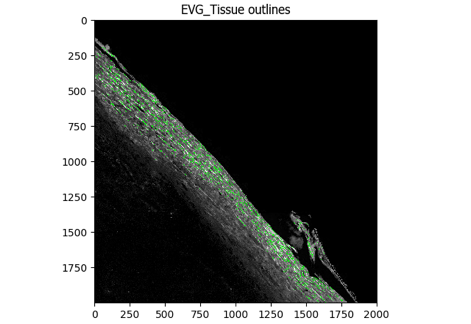
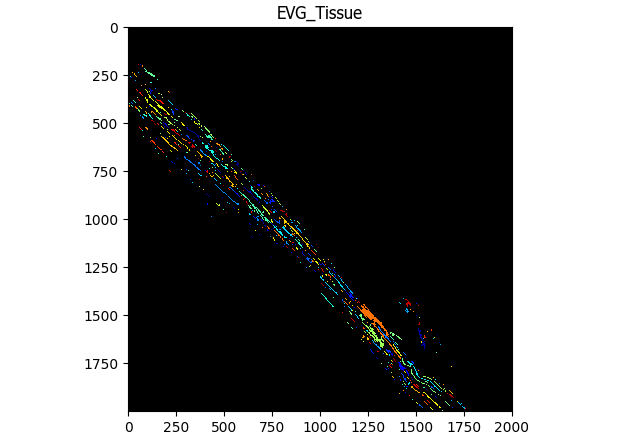
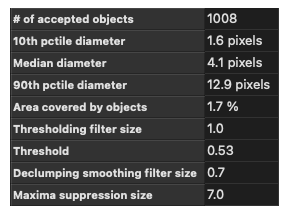
Sample used: AE9.T02-7170.EVG.TIF [Tile= X8000, Y24000]

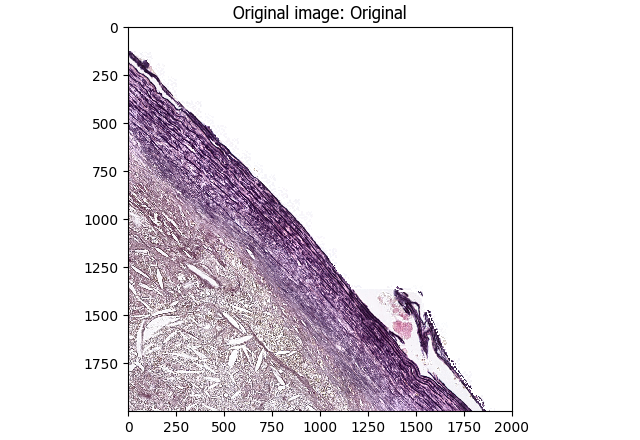
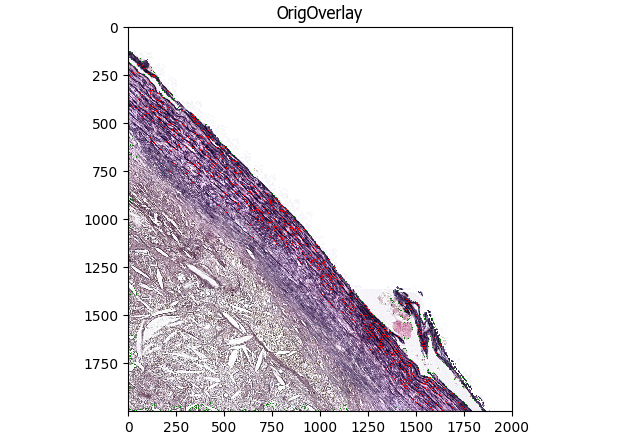
**B.**

**C.**

**D.**

**E.**

**F.**

**G.**

**Afbeelding met tekst, Lettertype, schermopname, nummer

Automatisch gegenereerde beschrijving**