

# Tutorial: Extracting frames from videos and annotating images with Photoshop

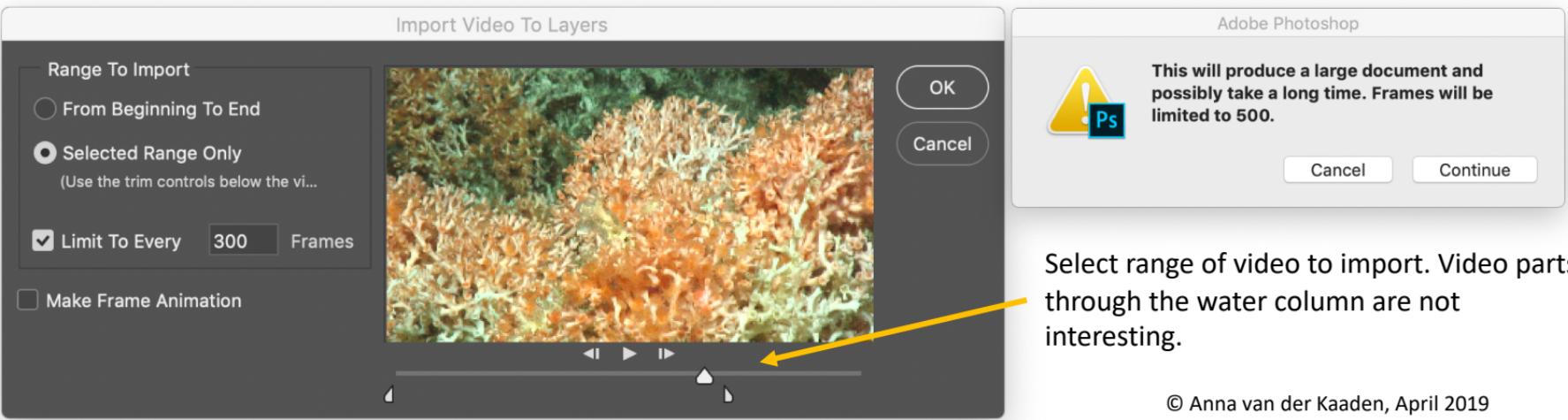
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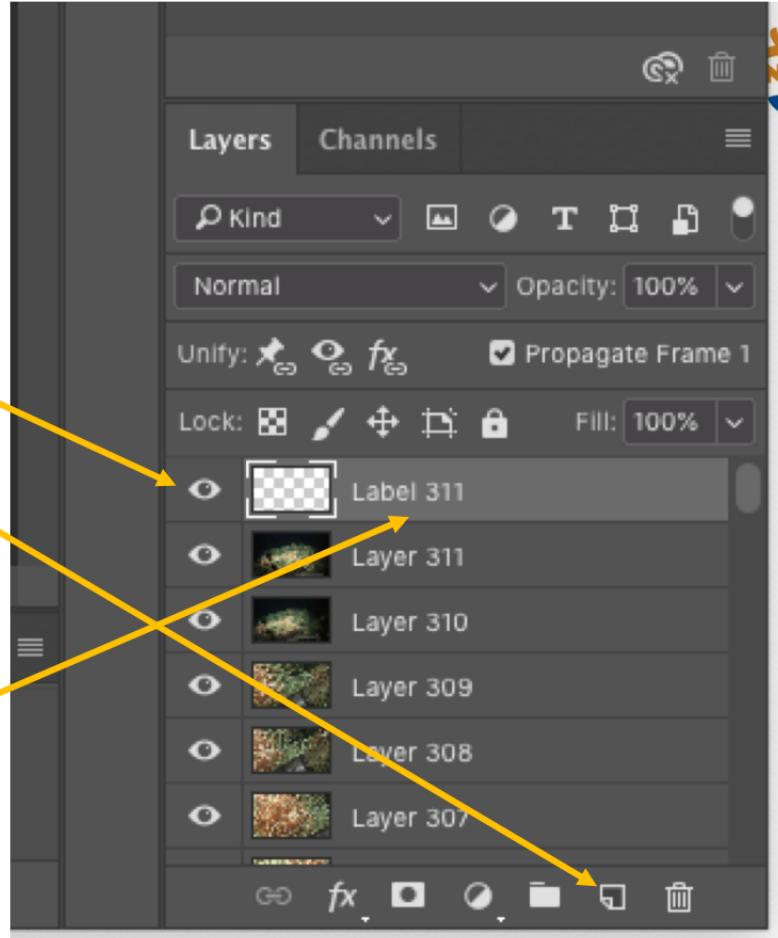
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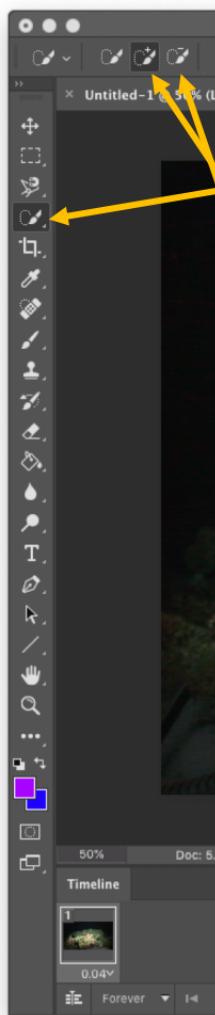
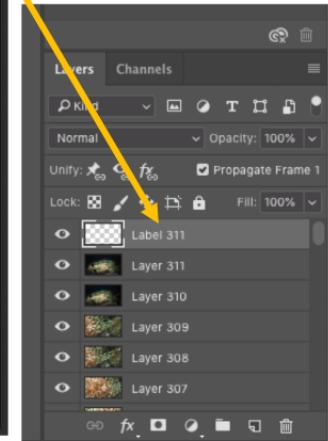
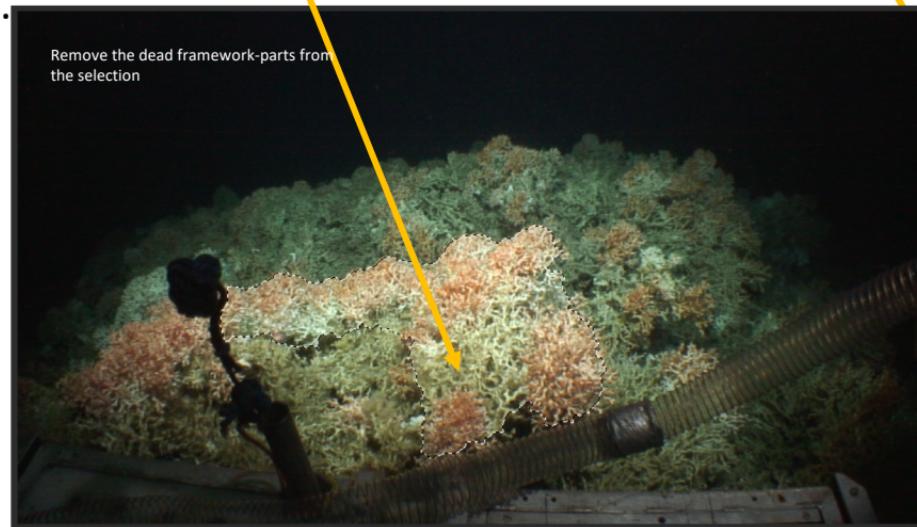
- In Photoshop: Go to File → Import → Video Frames to Layers...
- Select the video
- Select: Selected Range Only and specify the range you want to import, with the arrows under the video-image. Limit the import to every 200 or 500 frames.  
Note: write this number down, because you need it to calculate the lon-lat position of the image.
- If you get the message that frames will be limited to 500, increase the number of frames or decrease the range.



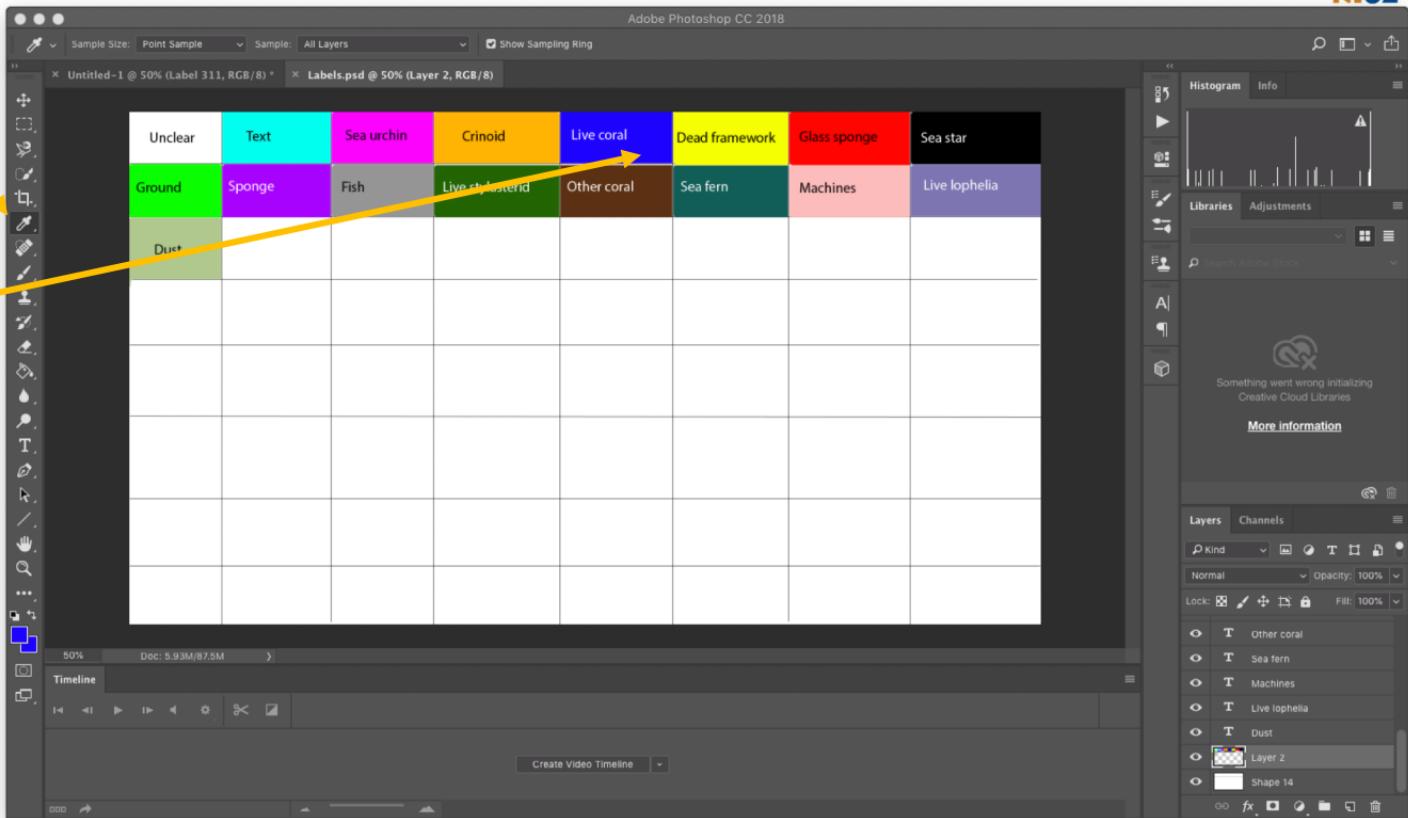
- Frames are stored as layers in one file.
- You can click on the eye next to a layer to make it invisible.
- Newly created layers will be transparent.
- You can drag them to their preferred position: above the layer you want to label. Then change their name to “Label XX”, by slowly double clicking on the text. XX is the number of the layer you are labelling.



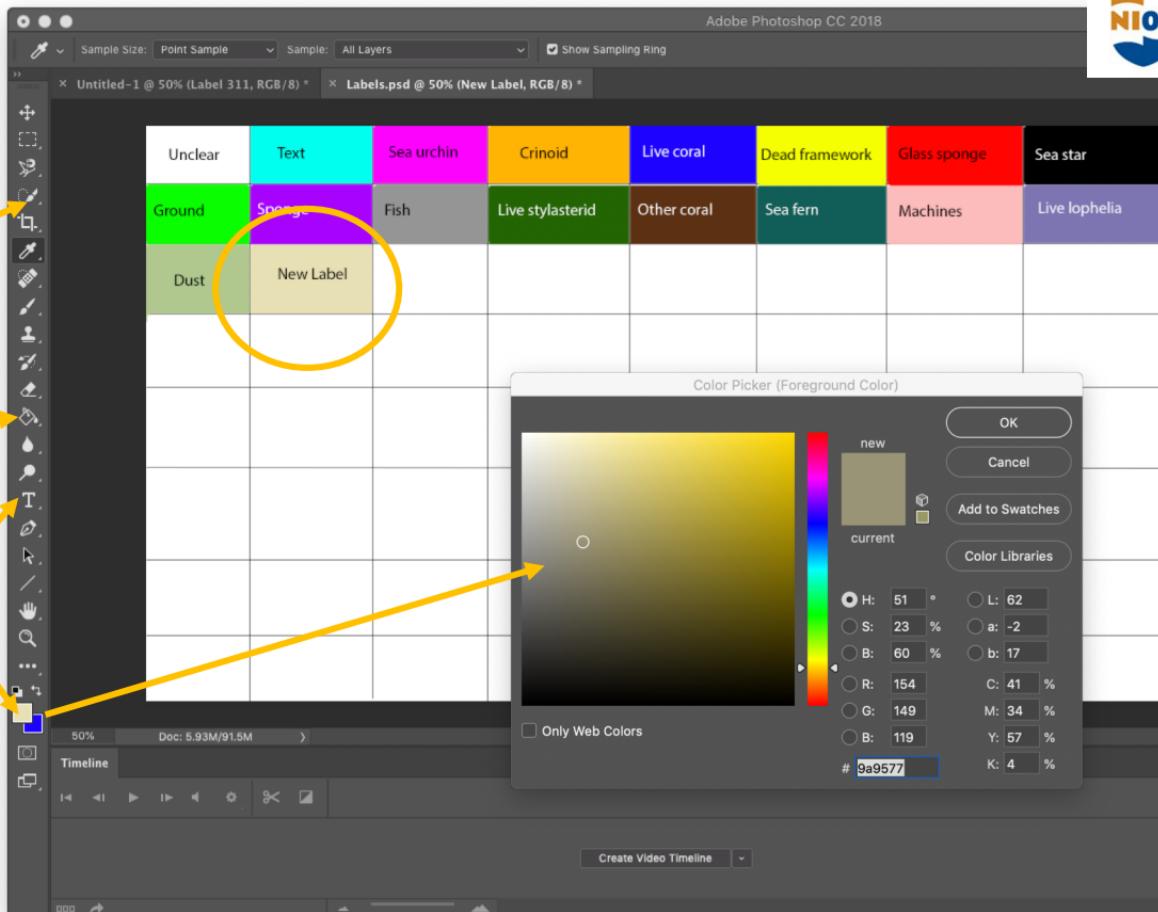
- Make sure you have selected the Label-layer when you start to label.
- Use the Quick Selection Tool to select the parts of the image you want to label.
- Drag your mouse over the area you want to label. Make sure to add to your selection.
- If your selection is larger then preferred you can also delete from your selection.



Select the Eye-dropper Tool and then select the correct colour from your labels.

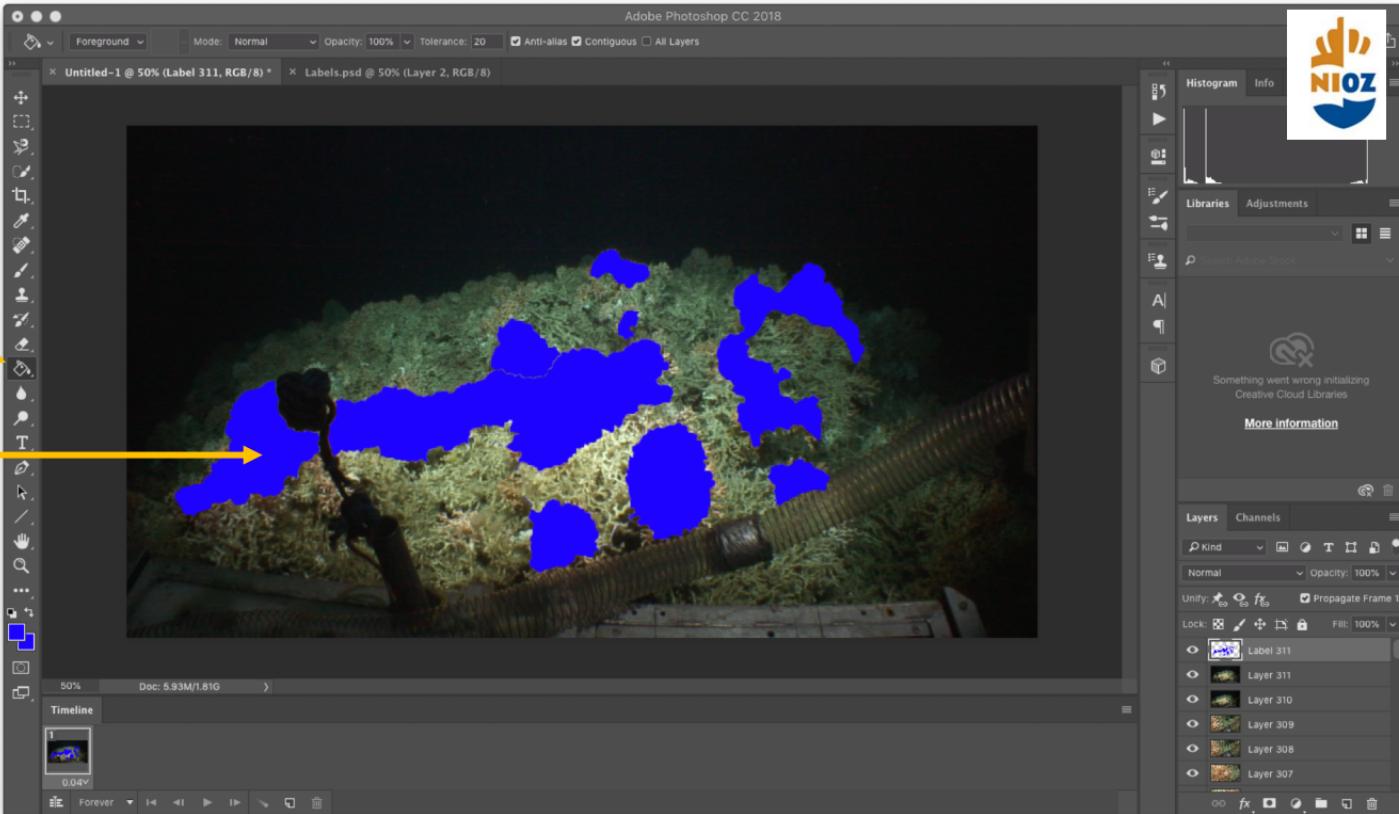


- You can add labels by choosing a new label colour.
- Select a rectangle with the Quick-Selection tool
- Colour it in with the Paint-Bucket Tool
- Add text and change the text-colour
- Deselect by right-clicking with the Quick-selection tool

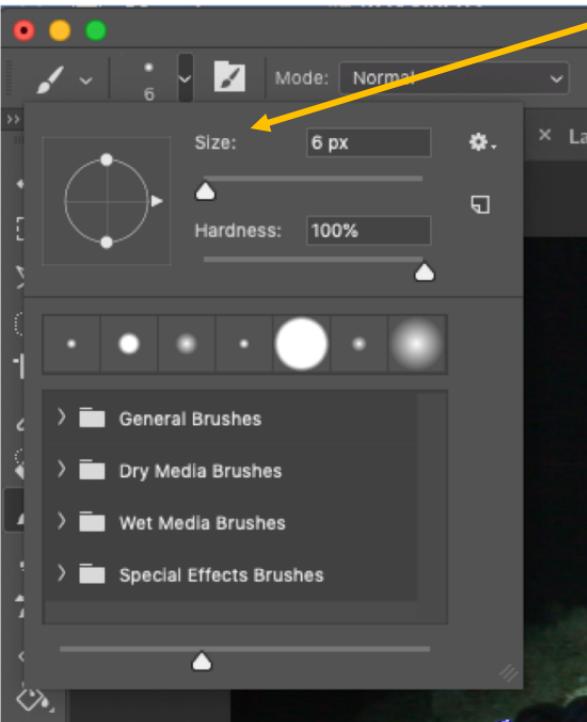


If you have the right colour selected, select the Paint Bucket Tool

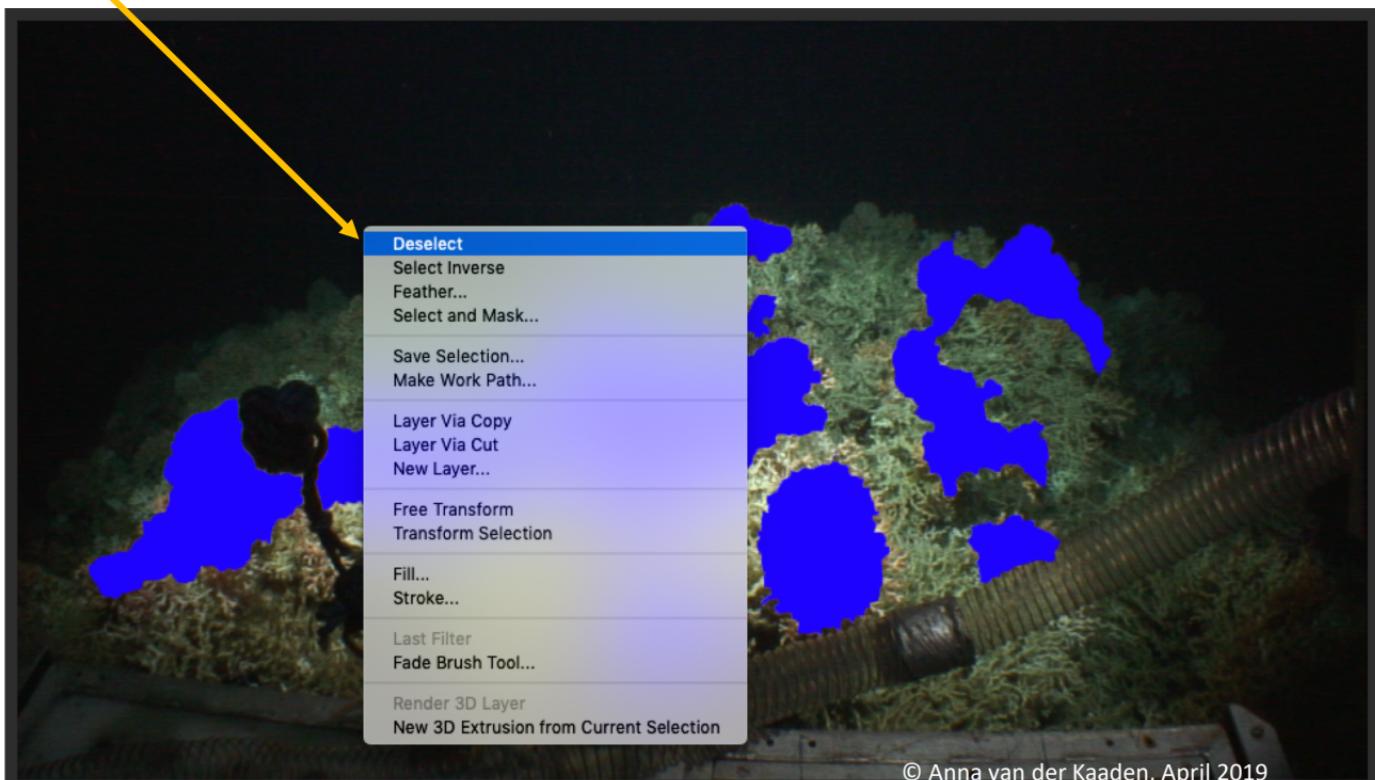
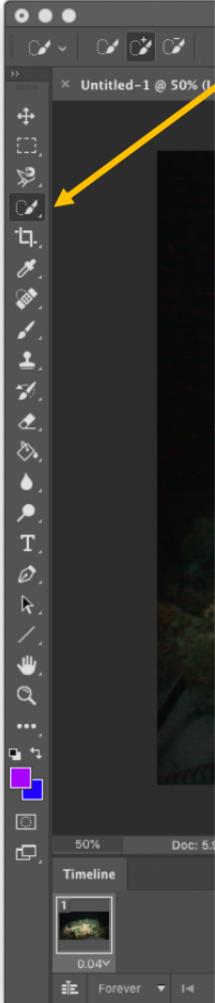
Then click in the selected area to colour in the whole region



- You can make small additions with the Brush Tool.
- Or remove small parts with the Eraser Tool
- Their size can be changed at the top.

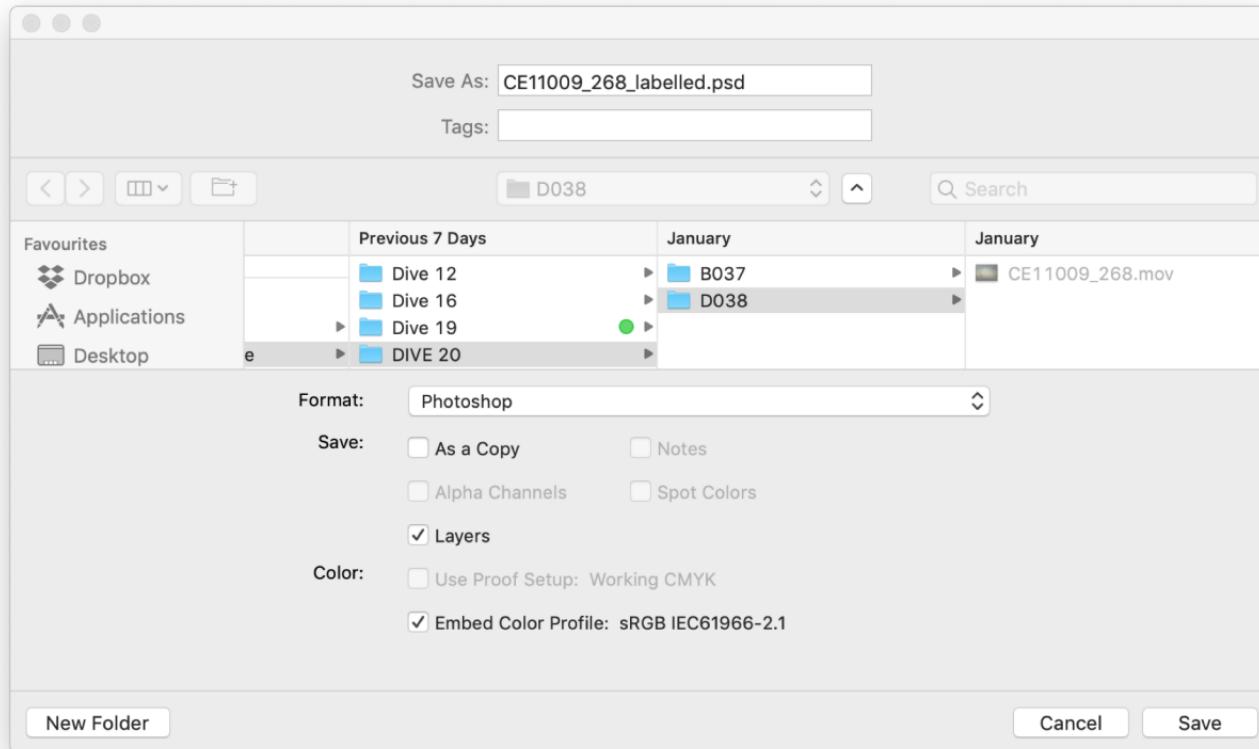


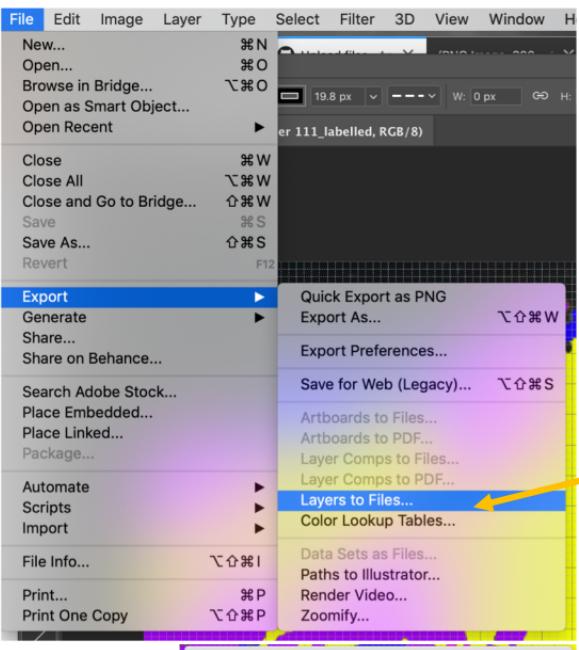
- Select the Quick-Selection Tool again.
- Right-click in the image to Deselect the selection.



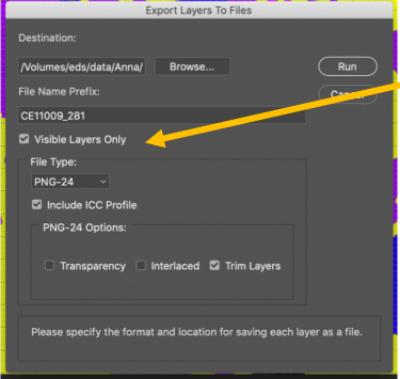
Now you can continue selecting other parts of the image.

When you're done save the file as the "[Name\_of\_video]\_labelled"

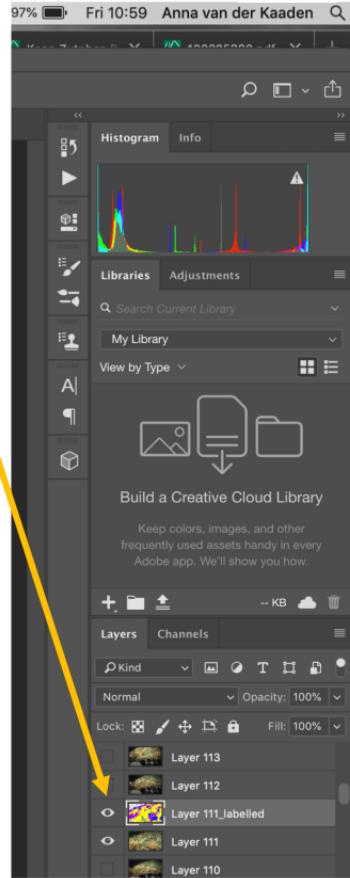




- When you're done, make all labelled files and their corresponding original visible, by clicking on the eye-icon next to the layer.



- Go to File → Export → Layers to Files...
- And choose “Visible Layers Only”



# Recommendations

- Have general categories of which you know you can recognize with certainty
- If unsure → leave blank (“trash category”)
- Do not be too precise: it takes a lot more time and often doesn’t add much value.
- Choose images of similar height above the seabed (or similar size → label the laser dots and you can easily calculate the image size with the provided scripts).
- You can use the data from the annotated images directly, or use them to train automated recognition algorithms. For the latter you need the entire image to be annotated.