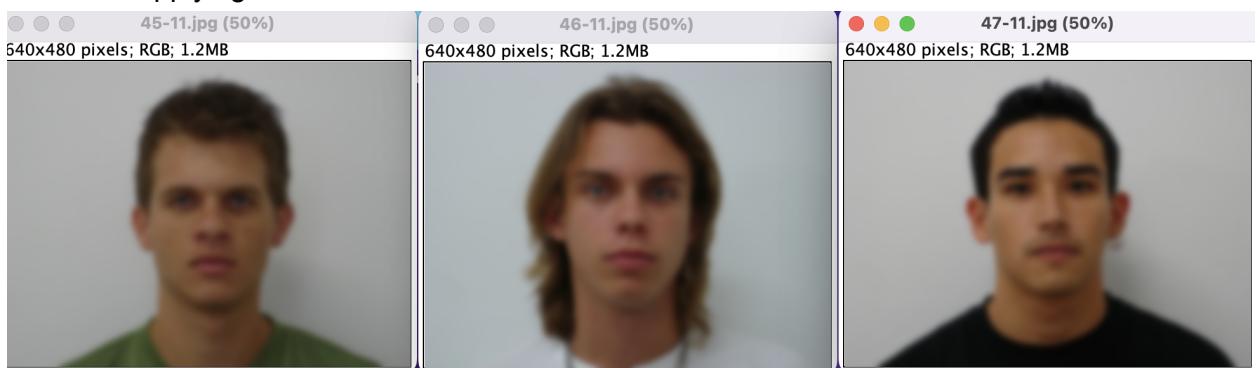
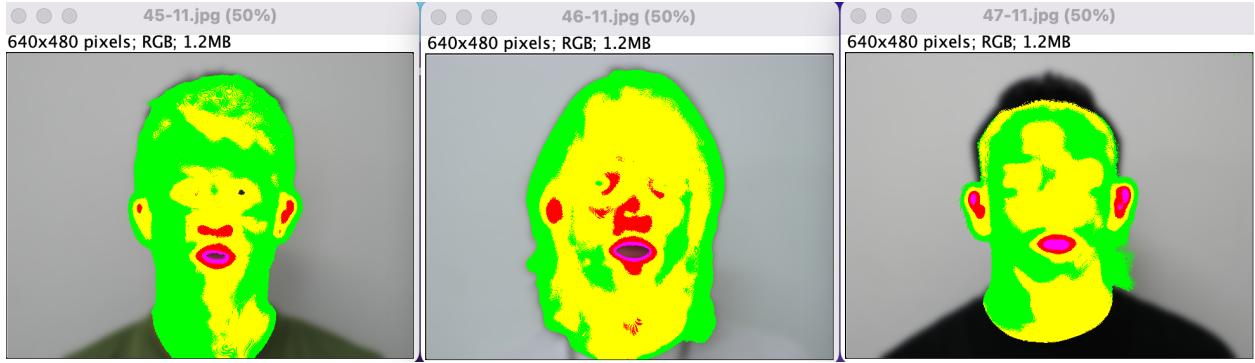




we chose three images from our data set without applying any filters. We applied all layers plugin and we can see the face recognition layers. We can see green red yellow and purple. The first image is the most clearest one and the second one has the most noise in it and the third one also we can see the central face the bounds, ears and lips. So in order to modify this and also get rid of all noises let's apply some filters.

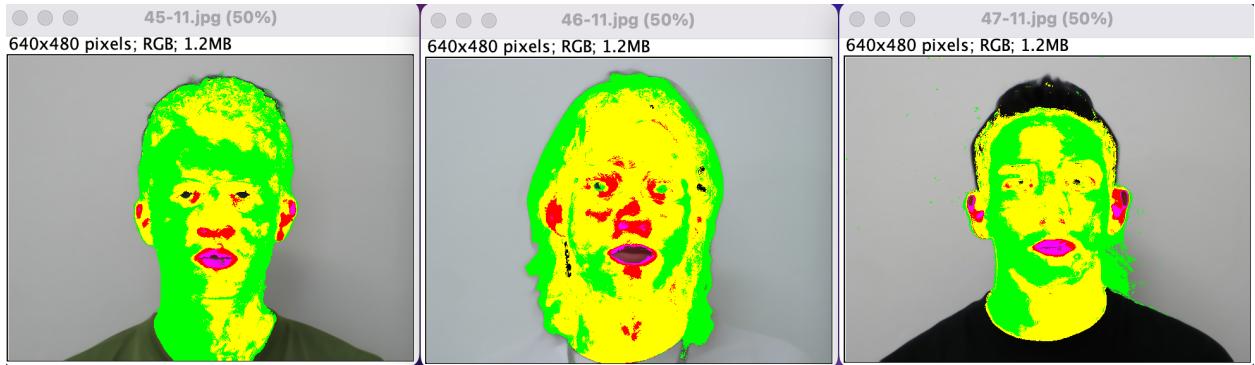
Let's start applying Gaussian Blur with radius = 5





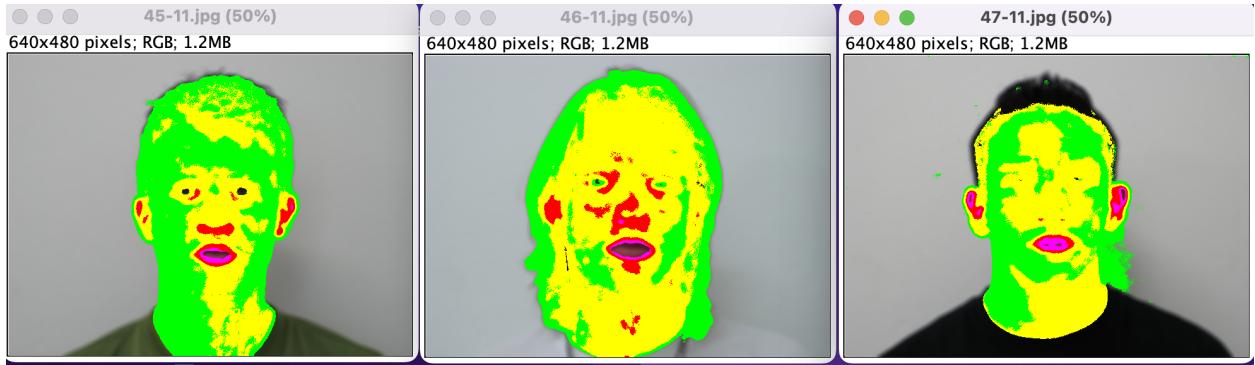
After applying Gaussian Blur filter and applying the plugin again, we can see that the noise ratio is reduced, and we can see that the second image is still too noisy to detect face parts. But from the first picture and especially the last one, we can see that the noise is too low and we can detect the facial bounds, ears and lips, and center face colored with yellow.

Let's apply a median with a radius = 5



We can see that the second image is still too noisy to detect something. The first image is the clearest to detect ears, lips, face center, and bounds. The last image, it is also somehow detectable but still has a little bit of noisiness.

Let's apply a mean with a radius = 5



We can see that the second image is still too noisy but it has better results than the median. The first image is the clearest to detect. The last image is also detectable and it has better results than the median.

so we can conclude that the first image is the best image to do some filters on it in order to expand our research let's apply some filters, especially the median after applying all layer filters and let's increase the radius as much as we can and see what we will get and how much noises we will get rid of.



so what we did here is that we applied a medium filter after applying all layers plug-in with radius equal to 5 8 10. As we can see from the images the first one still has some noises but it's okay the second one is the clearest one with a radius equal to 8 but we're started losing some areas on the left ear. With radius equal to 10 we can see that we completely lost the left ear so we get into the confusion where the best radius to practice on this image is with radius 5 and using medium filter so let's continue our study and our task with this image with radius 5.