

# COLOUR CAST REDUCTION PLUGIN (Revision6)

David Marsden – June 2023

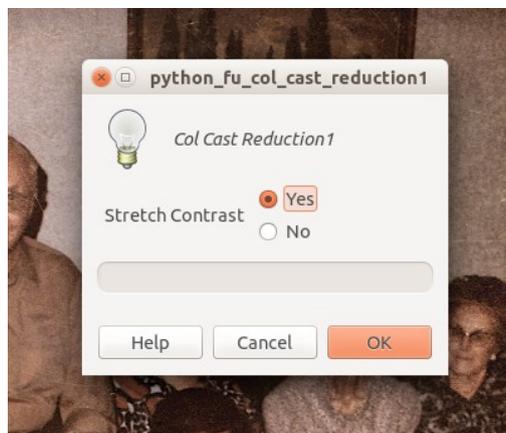
The Colour Cast Reduction plug-in, (**col\_cast\_reduction1.py**) is to be installed in the Plug-ins folder of GIMP and will be found under Python-Fu. Linux users will need to make it executable.

The plug-in can be downloaded at:

<http://gimpchat.com/viewtopic.php?f=9&t=20412&sid=0551045d676eef3c8324ae62a3eeeb69>

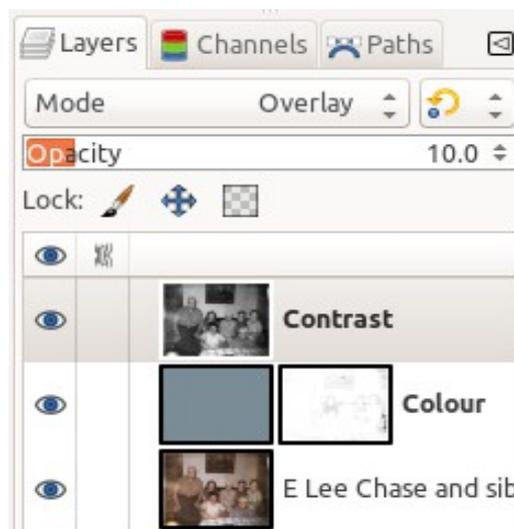
## Usage.

When the image has been loaded, go to **Python-Fu** and click on **Col Cast Reduction1...** The **Stretch Contrast** window will appear. Choose the option (usually the default “**Yes**”, but occasionally there may be an image where “**No**” produces a better result) and click **OK**.



**Stretch Contrast Window**

Two additional layers will be created as shown in the layers palette (below).



**Layers Palette**

The contrast of the image can be adjusted by changing the opacity of the **Contrast** layer. The amount of colour correction can be adjusted by making the **Colour** layer active and using **Colours/Saturation**.

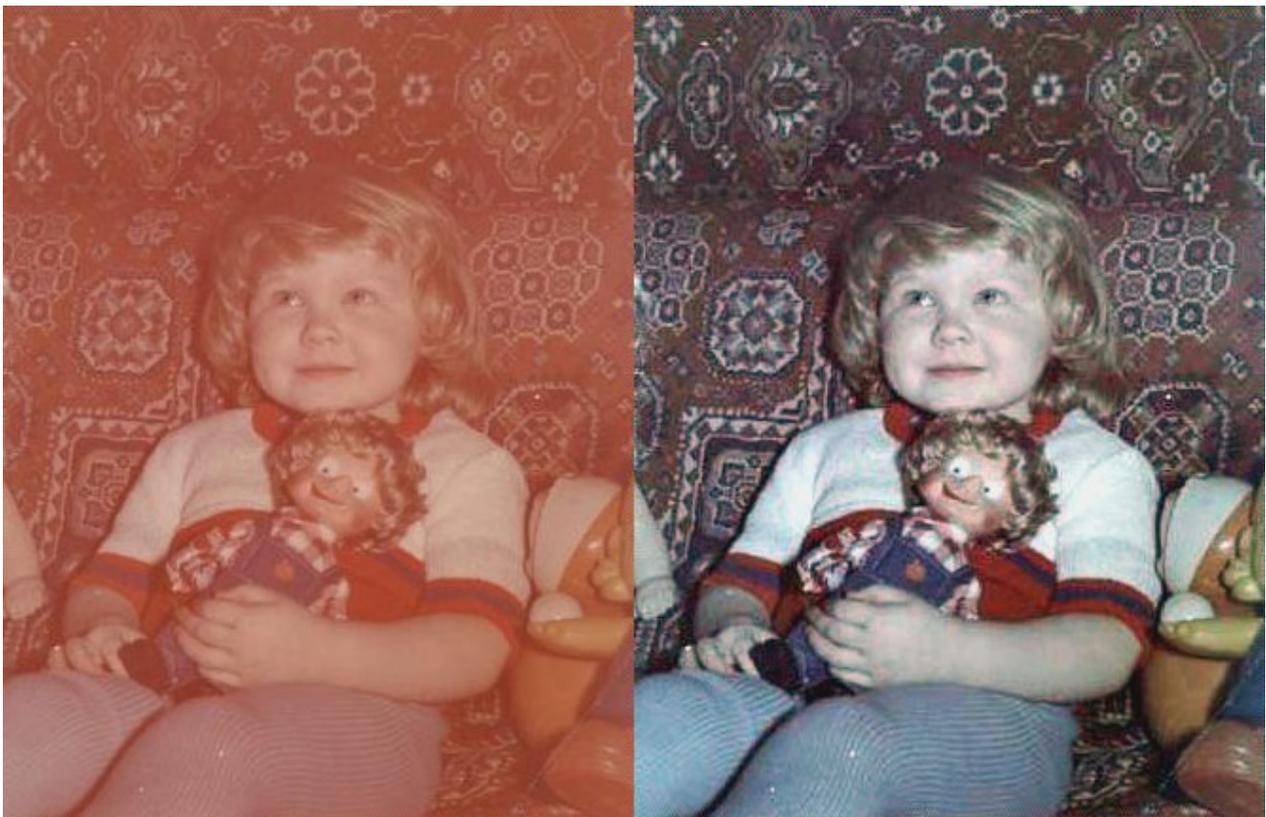
A **New from Visible** layer will allow additional editing of the result of the plug-in.

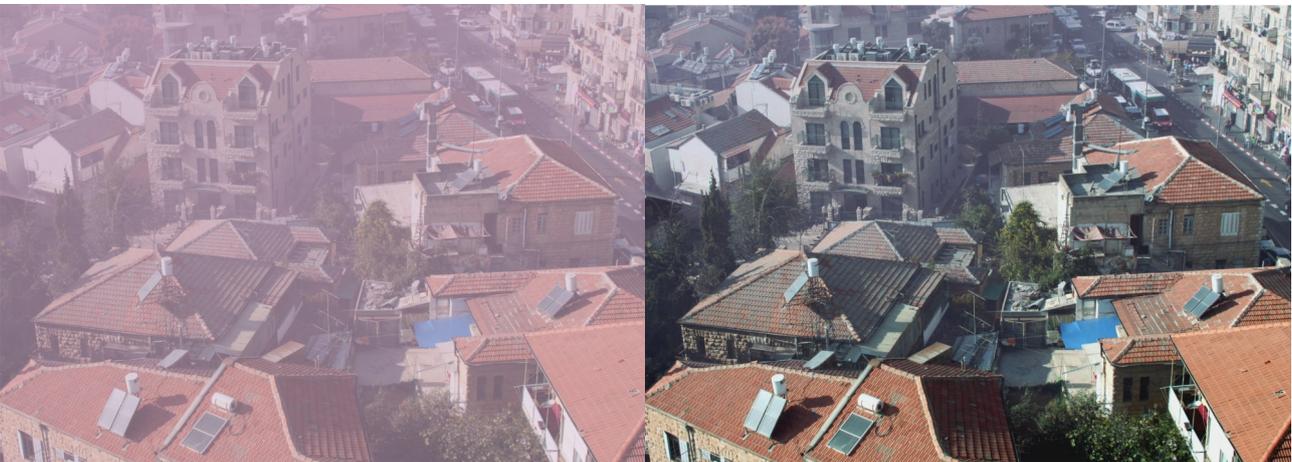
**Merge Visible Layers...** or **Flatten Image** will reduce the end result to a single layer ready for saving, or export.

### Examples.

For all the examples the plug-in was used at it's default settings – no other adjustment.

The picture that prompted the re-write of the plug-in, before and after (From Pixl.U.s).





### **Operation principles.**

If there is an existing selection it is saved to a channel and re-instated after the plug-in has run.

The plug-in decomposes the image to RGB and recomposes to a new layer. This is to eliminate any alpha channel which would have the effect of diluting the colour cast correction. If there is an alpha channel it is re-instated after the plug-in has run.

The option to stretch contrast (default “**Yes**”) uses **levels\_stretch** to increase contrast to the maximum and it is then reduced by 10%. Using the option “**No**” may prove beneficial for certain images.

A new layer is created. This layer is scaled to 100px wide with its height in proportion. It is pixelized to the full dimensions of the layer – that is the image is converted to one pixel that has the average colour of the image.

(Thanks go to **Krikor** for this brilliant idea!)

This layer is colour inverted and a sample is taken from the middle of the layer. The sample is used to set the foreground colour. The small layer is then deleted. A new layer of the full image dimensions is added and filled with the foreground colour. This layer is changed to overlay mode to provide the colour correction.

Another new layer (from the recomposed layer) is added. It is desaturated, stretched to maximum contrast, its mode changed to overlay and opacity 10%. This is to provide a means of contrast adjustment.

A mask is added to the colour correction layer containing the black and almost black parts of the original image. This prevents contamination of the black areas of the image by the colour correction layer.

Any pre-existing selection and alpha channel are added back to the image.

The base layer is renamed to the original file name.

Many thanks are due to **Tim Tran** and **Krikor** for their help and advice in the production of this plug-in.