

Graphic orientation-arrows and their embedding in scientific figures  
with the free tools ImageJ and Gimp

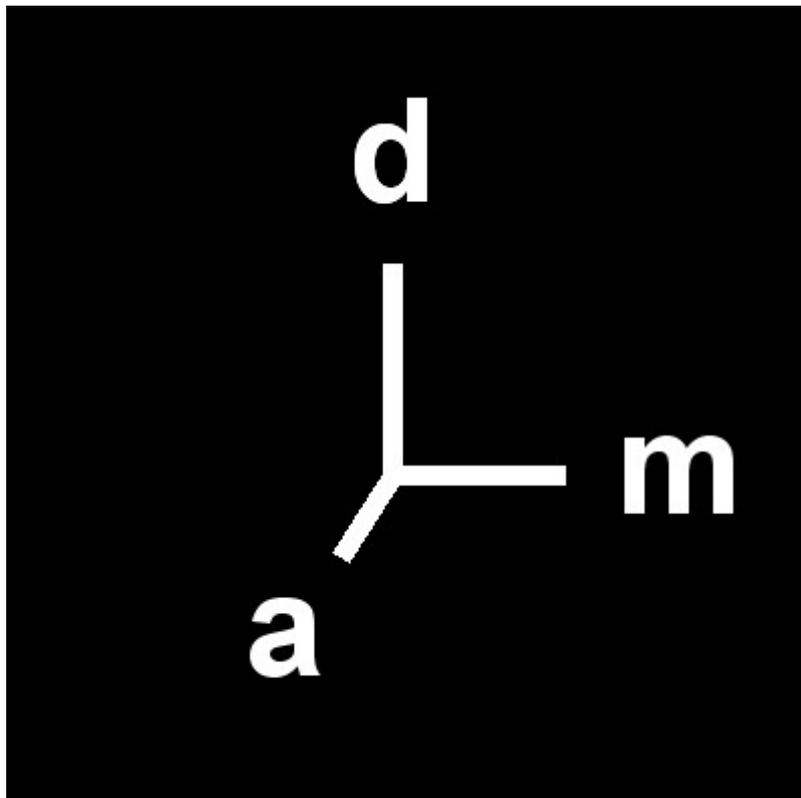
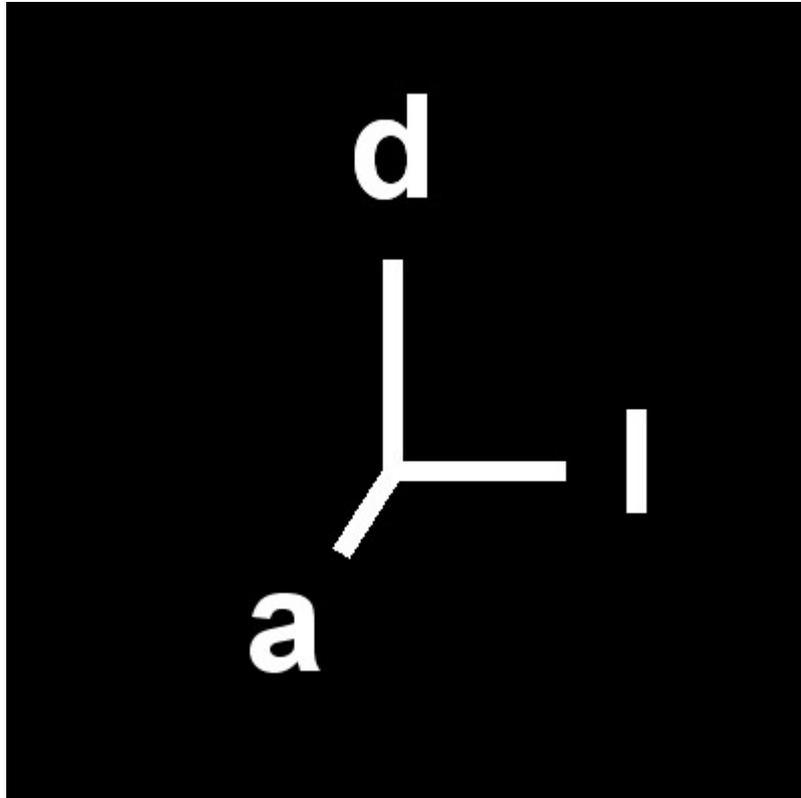
A tutorial by Klaus-Günther Coracino, V.1.3, Berlin, 4.1.2012, translated on 29.11.2013

Disclaimer: errors excepted, no liability

May be distributed freely if unchanged

The two pictures may be used as well.

I wouldn't mind being mentioned as their author and would enjoy a link.



The preparation of the orientation arrows was performed with ImageJ:

Nacheinander in ImageJ auf die 3 Menü-Punkte der nächsten Zeile klicken:  
File/New/Image. Im dann sichtbaren Fenster "New Image..."

Many of the following steps can be undone with Ctrl + z.

Successively click on the 3 menu items of ImageJ on the next line:

File / New / Image. In the window visible then, " New Image ... "

- enter the name
- 8-bit can be so , otherwise difficulties in association with other images may occur later.
- Fill With: Black This then is the background color, which can be removed later, however , so that only the lines and letters are visible on the scientific figure.
- Width: 400; Height: 400; Slices: 1

Click on OK.

Right-click on the 5th icon from the left (diagonal slash), then select "Straight Line" and double-click on it. In the now appearing window "Line Width" set the value to 10 or less. In my pictures I had taken 10. Consider that the image is reduced later.

Double-click on the icon " Color picker " with the eyedropper icon. Set foreground color to white there by clicking on the lowest range of the gray scale "ramp".

In window meanwhile appeared with the file name and the black background, it can now be painted, but before, double-click on the 5th icon again. After each of the 3 arrows press Ctrl + b, then click next to each of them.

Then double-click on the text icon "A". Font size was 72 with my pictures. Note that the font is reduced later with the image. I had chosen Center + Bold. In the figure's key I later specified: a = anterior, d = dorsal, l = lateral ( or left) , m = medial.

The picture will now be saved. ( with me as jpg).

Now start GIMP.

With File/Open load the scientific figure, which is to receive the arrows.

With File/Open as Layers load the image created above, to be inserted.

The latter is shifted by toolbox (icon with cross with arrowheads) and scaled (here: reduced).

Before, set a check mark below in "Keep Aspect". If by moving something has fallen out of the picture, choose Layer/Layer to Image Size.

Then mouse over the pasted image and

Right-Click/colors/invert (click on "Invert").

Right Click/Colors/Color to Alpha (click on "Color to Alpha")

Click in the window that appears, then click OK.

Then mouse over the pasted image and

Right-Click/colors/reverse value ("reverse value" button) .Possibly Ctrl + z.

Then mouse over the pasted image and - until it is no longer possible -

Right Click/Layer/Merge layer downward ("Merge layer downward" button)