DIGITAL LIBRARY OF THE Caribbean

SECTION 8

Image Correction

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Image Correction

The intent of any digitization should be a faithful reproduction of the original document. Toward this goal, images will need to be deskewed and cropped to fit the in-hand original. In addition, it may be desirable to perform color correction either to reproduce the in-hand original, or the original state of the document. In addition, stains can often be removed and the image generally enhanced by replacing colors. Applying these techniques in Adobe Photoshop is the topic of this section.

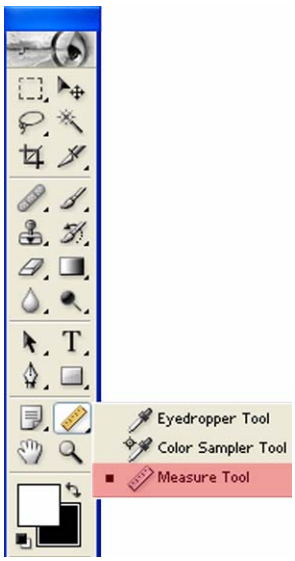
To better facilitate image correction and ensure accurateness of colors your monitor should be calibrated about once a month. This quick and simple procedure can be done by using the Adobe Gamma program already installed in your computer.

1. Under My Computer select: *Program Files* → *Common Files* → *Adobe* → Calibration
2. Open Adobe Gamma
3. Follow the Step by Step Wizard to calibrate your monitor

Image Correction in Adobe Photoshop

1. To straighten drastically skewed images:

    a. Click and hold the Eyedropper Tool in the Photoshop tool box – Select the Measure Tool



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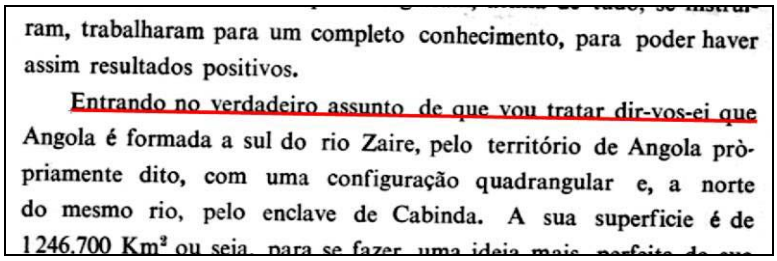
b. Click and draw a line to follow the bottom of any printed text, line or image
(*line is red, here, for purposes of illustration*)


ram, trabalharam para um completo conhecimento, para poder haver assim resultados positivos.

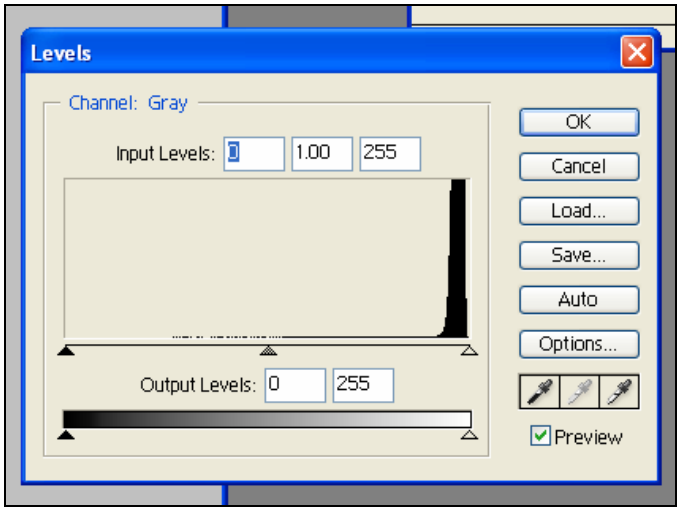
Entrando no verdadeiro assunto de que vou tratar dir-vos-ei que Angola é formada a sul do rio Zaire, pelo território de Angola pròpriamente dito, com uma configuração quadrangular e, a norte do mesmo rio, pelo enclave de Cabinda. A sua superficie é de 1 246.700 Km² ou seja, para se fazer uma ideia mais perfeita de que

c. Select: *Image* → *Rotate Canvas* → *Arbitrary* (*DO NOT change the angle*) → click *OK*

2. Crop the image to remove any excess borders added during straightening using the crop tool

DO NOT crop into the image, maintain its original size and ratio

3. If necessary (e.g., if the image is muddy), adjust the levels/histogram by selecting
Image → *Adjustments* → *Levels*



Adjust the black, white and midpoints to improve your image quality and contrast.

If the image is COLOR, you may make histogram adjustments for each RGB channel: Red, Green and Blue.

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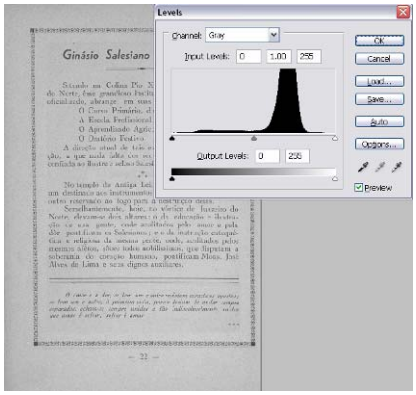
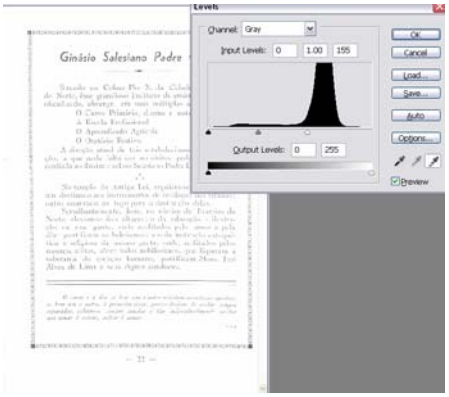
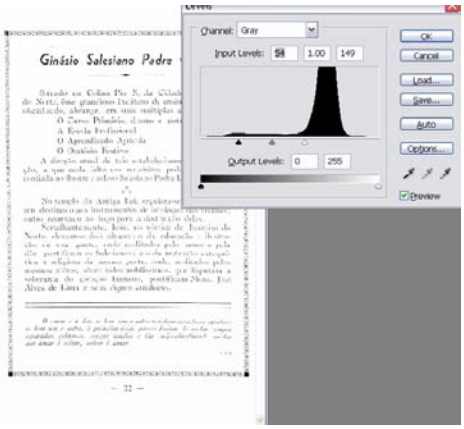
But, do not over correct and eliminate detail. A histogram shows the distribution of tones over a range. The image characterized by the histogram above is predominantly white. While the image contains shades of gray, deeper tones of black are almost entirely absent.

4. Images with good, thick printed text can also be quickly corrected by selecting the document's white point. This is done by opening the levels/histograms by selecting *Image* → *Adjustments* → *Levels*. In the levels window select the eyedropper furthest to the right and then select the point in your image that should be the brightest white. The images below show this effect before and after the white point selection.





You will notice that the background becomes almost uniformly white, but the text is also lightened. Before selecting OK in the levels/histograms you will need to bring in the black point in order to improve the text. This is done by moving the arrow furthest to the left, in towards the right. You will notice that the numbers in the Input Levels boxes increase.



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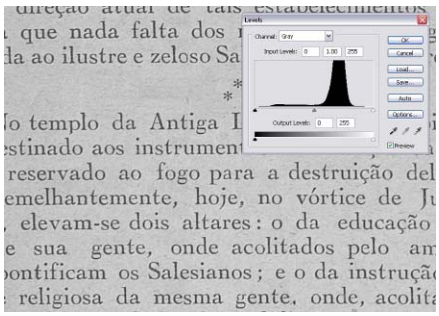
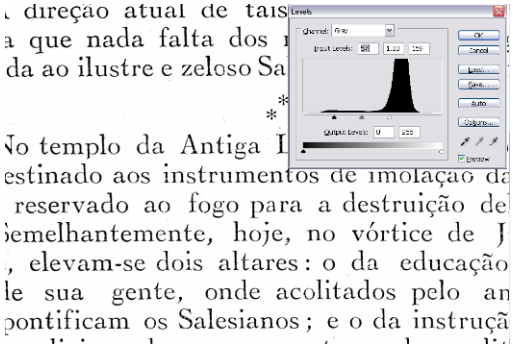
It is helpful to perform this correction while zoomed in to 100% on your image, as shown below.





5. If the image is extremely stained the document should be scanned in RGB and if possible, the stains should be lightened using *Image* → *Adjustments* → *Replace Color*

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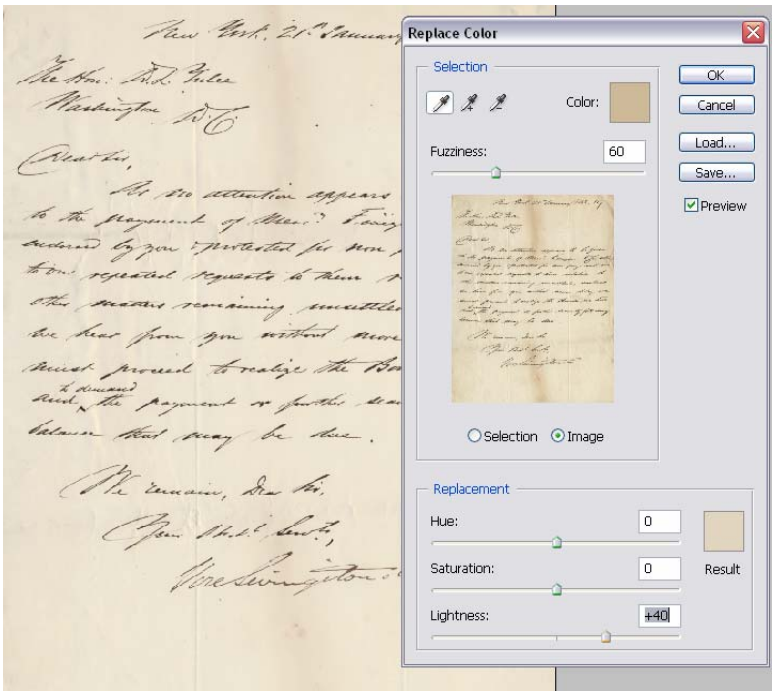

Select "Image" and not "Selection" in the Replace Color Window. Then using the eyedropper tool select the darker color of the stain. Adjust the Lightness, Saturation and Hue slider bars as needed to minimize the stains. The fuzziness meter indicates how closely a color must match the selected color to be replaced. Be aware that stains may be similar in color to text and therefore not too much manipulation is desired in order to not lose information.

Often it is useful to zoom into one section of text while performing the color replacement. One must be careful not to make the text harder to read for the OCR engine.

6. Remember that any adjustments done to images can be undone as long as the file remains open. Maintain your history window open by selecting *Window* → *History* in Photoshop, then simply select the previous step done. You can always go back several steps and re-correct your image.

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Adobe Photoshop Shortcuts

A complete list of shortcuts can be found by selecting *Edit* → *Shortcuts* in Photoshop. Below is a list of frequently used shortcuts.

New	Ctrl+N
Open	Ctrl+O
Close	Ctrl+W
Close All	Alt+Ctrl+W
Save	Ctrl+S
Save As	Shift+Ctrl+S
Exit Program	Ctrl+Q
Undo/Redo	Ctrl+Z
Print with Preview	Alt+Ctrl+P
Print	Ctrl+P
Step Forward	Shift+Ctrl+Z
Step Backward	Alt+Ctrl+Z
Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Levels	Ctrl+L
Auto Levels	Shift+Ctrl+L
Auto Contrast	Alt+Shift+Ctrl+L
Auto Color	Shift+Ctrl+B
Curves	Ctrl+M
Color Balance	Ctrl+B
Hue/Saturation	Ctrl+U
Arbitrary Rotation	Alt+I+E+A
Zoom In	Ctrl++
Zoom Out	Ctrl+-
Zoom to Actual Pixels (100%)	Alt+Ctrl+0

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Other Adobe Photoshop Resources

The original Adobe Photoshop installation package should include a tutorial of the software you purchased.

In addition, Adobe has an on-line resource at the following URL:

http://www.adobe.com/products/tips/photoshop.html

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