DMC Guide

Taking Photos of Fragile Books

Setup

The purpose of this guide is to demonstrate an alternative to flatbed scanning for old or fragile books

Setup: In the videography studio setup the following components:

- Camera mounted on Manfrotto tripod with sidearm, refer to the sidearm mounting guide
- 2 Fiilex lights with soft boxes set to maximum intensity
- Ruler or paperweight to weigh down current page
- Position fragile book approximately 11in from camera lens

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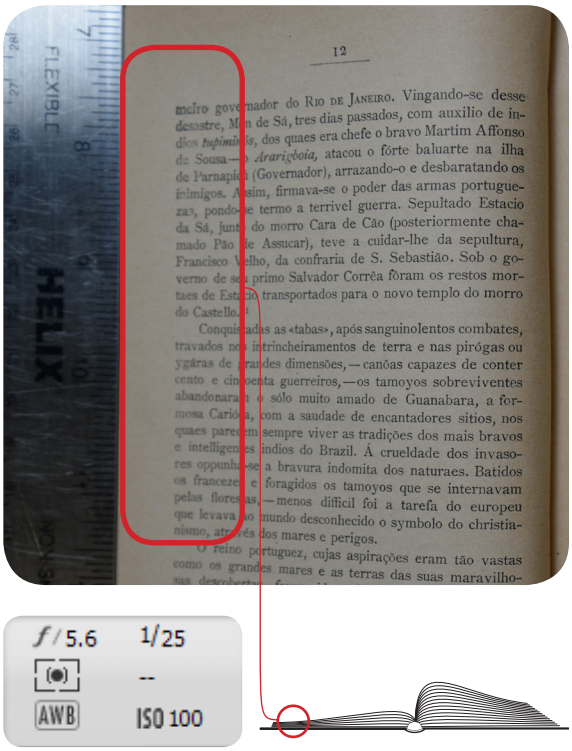
Problem

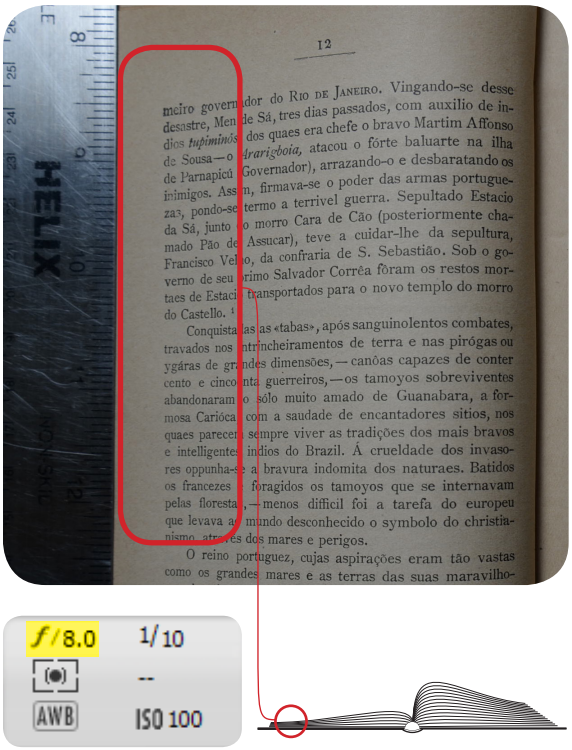
Difficulty

There are 2 main problems photographing a book:

1. The left and right edges of the page become blurry as they become further away from the lens.
2. As the book is gradually photographed page by page, the current page's distance from the camera changes.



Notice the blurry portion of the page



ƒ/8.0 gives a good depth of field but only for this portion of the book

As seen in the above figures, problem 1 can be remedied by making the aperture smaller to *ƒ/8.0* thereby increasing the depth of field. However *ƒ/8.0* would not be considered a good value for the entire book as the height on either side changes with each advance of the page. Therefore a smaller aperture must be used to accomadate an even larger depth of field.

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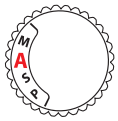
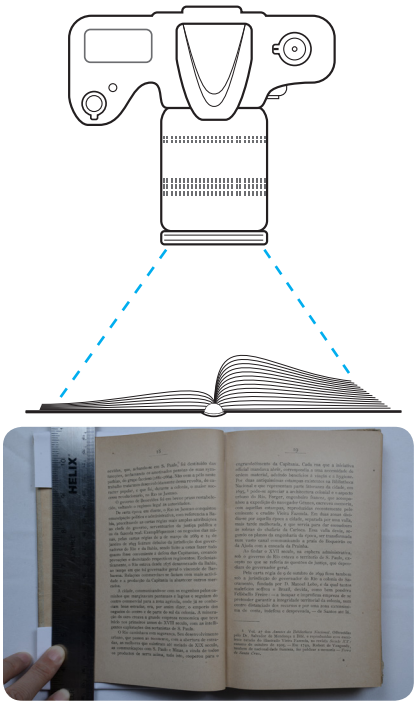
Solution, Process

Process

1. Open the book near the center page. Use autofocus to focus onto the letters and then switch to manual focus.
2. 

Set your camera to aperature priority. For a small size book 11in from the lens, start around *ƒ/13*. Be aware that a larger, thicker book may have an even smaller aperture.
3. For the file type and quality in camera settings, JPEG and "medium" size is legible and best for a portable pdf. For archival quality or detailed pictures, "high" or raw photos would work best. Uncompressed images can be batch processed to smaller file sizes in Photoshop
4. In 3 different portions of the book, experiment with an appropriate depth of field which will accomodate every page. In the example below, *ƒ/13* is tested at the beginnig, middle and end.



ƒ/13.0 1/20
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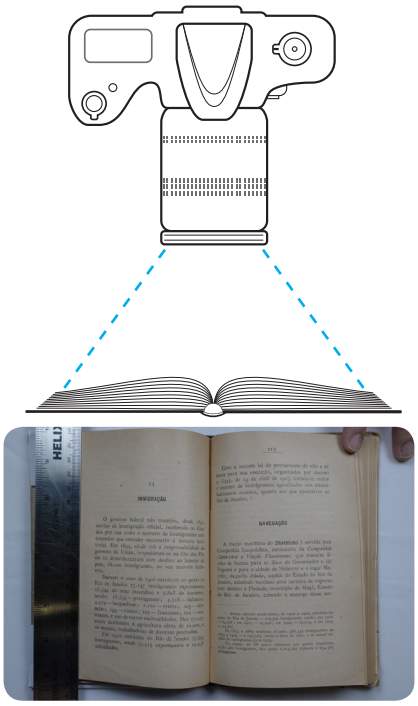
AWB ISO 250

page 18



ƒ/13.0 1/20
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AWB ISO 250

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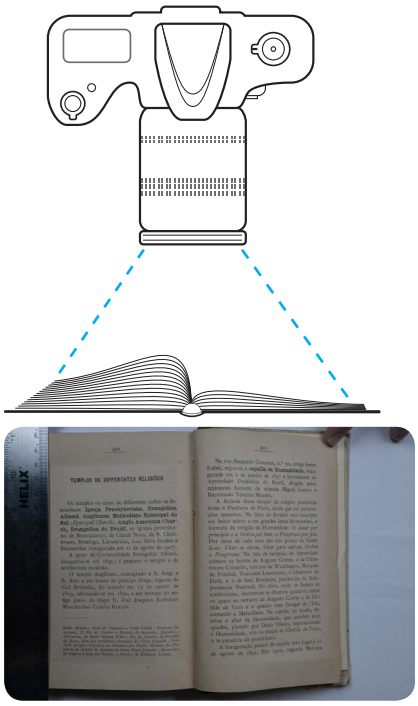

ƒ/13.0 1/25
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AWB ISO 250

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