The Film Developing Cookbook Errata

It seems that the most troublesome error in both printings of The Film Developing Cookbook is in the formula for FX-37 on page 61. For one litre of stock solution, we specify 50 ml of a 1% solution of Benzotriazole. This is ten times greater than what Crawley specified. The correct amount is 50 ml of a 0.1% Benzotriazole solution, or 5 ml of a 1% Benzotriazole solution. Please note that this error has also been carried over into the first printing of the 2nd edition of The Darkroom Cookbook. We apologize to everyone who has tried this interesting formula with the wrong amount of Benzotriazole.

The second major error in the first printing of the Film Developing Cookbook occurs on page 126, where the formula for FX-1 stock solution is completely erroneous, even though the working solution formula, on page 59, is correct. The formula for FX-1 stock on page 126 should read:

Stock Solution A:
Metol, 5 grams
Sodium sulfite anh., 50 grams
Potassium iodide 0.001%, 50 ml
Water to make 1 liter
Stock Solution B:
Sodium carbonate anh., 25 grams
Water to make 1 litre

Our special thanks to Luc Novovitch for catching this one, which has been corrected in the 2nd printing.

We have also discovered that some editions of The Darkroom Cookbook contain erroneous information on FX 1. The amount of carbonate in the working

solution is 2.5 grams per litre, not 3.0. In addition, sodium metaborate cannot be substituted for carbonate, and the working solution of the developer cannot be diluted by a further 1:3.

In the exceedingly unlikely event that you would want to dilute FX 1, proceed as follows: use half the amount of metol, triple the carbonate, and leave everything else exactly as it is. In FX 1, it is particularly important to keep the sulfite at 5 grams per litre of working solution.

Although some think FX 1 has a tendency to soot and chalk gradation, we think this is a misleading characterization. Geoffrey Crawley best characterizes this developer when he speaks of its engraving-like effect. It is unquestionably one of the two or three sharpest developers ever formulated for slow and medium speed conventional grain films.

Changes in the 2nd printing

There have been numerous small changes in the 2nd printing of the Film Developing Cookbook, which has been available from mid-1999. Each one is listed here for the benefit of readers of the 1st printing. Perhaps the most significant change is in the formula TF-3 on page 106, listed beow.

Telling the difference between the 1st and 2nd printings is not easy. Here's how: go to the page with the copyright information at the front of the book. The very last line on the page reads 'Printed in the United States of America'. Right above this line is a line of numbers. In the first edition, the line reads as follows:

10 9 8 7 6 5 4 3 2 1

In the 2nd edition, the number 1 has been removed and the line reads as

follows:

10 9 8 7 6 5 4 3 2

Besides the change on page 126 noted above, the changes in the 2nd printing are as follows:

p. vi. ID-68 has the page number 111 (before there was no page number)

p. 3. The paragraph under the heading ‘Negative quality’ has been rewritten as follows:

If there is any secret to obtaining high sharpness and fine grain, it is to ensure that the negative has a low density range. Maximum density should not exceed 0.9 above base+fog for small negatives, or about 1.2 for larger negatives. This means that 35mm negatives of normal scenic contrast should ideally be developed to print well on grade 3 paper. Medium and large format negatives should be developed to a slightly higher contrast, to print on grade 2 paper.

p. 32. The second to last paragraph has been rewritten as follows:

To invert the tank, lift it with both hands, your right hand covering the lid to prevent it from popping off, and your left hand under the base. Twist the tank away from your body, clockwise, as you turn it upside down. Twist it back to the starting point as you turn it right side up. One complete inversion should take about 2 seconds. For the next inversion, reverse the twisting direction: twist the tank towards your body, counterclockwise, as you turn it upside down. Before placing the tank down, gently tap the base on a hard surface to dislodge air bubbles.

p. 48. There are two very slight corrections in the formula for Promicrol (in the left margin) which now reads as follows:

PROMICROL
Hydroxyethyl-o-aminophenol 6 g
Sodium sulfite anhydrous 100 g
Glycin 1.16 g
Sodium carbonate anhydrous 11.5 gWater to make one liter

p. 56. The paragraph which starts ‘A high acutance developer ...’ has been slightly rewritten as follows:

A high acutance developer does not have to have a minute concentration of developing agent if the sulfite is very low. In both Kodak HDD and Windisch Pyrocatechin, the developing agent is 2 g/L while the sulfite is less than 2 g/L, ensuring controlled decomposition of the developing agent. However, this approach is both more expensive and less environmentally sound than the more elegant technique used in FX 1, where the smallest possible amount of developing agent (0.5 g/L) is used in combination with a higher amount of sulfite (5 g/L) to maintain the desired protective effect.

p. 59. In the chart, 3.75 grams of sodium sulfite is given under FX 2; this now reads 3.5 grams.

p. 66. After the sentence ‘we doubt contemporary toxicologists would agree’ there is a comma, where there should have been a period.

p. 71. After the paragraph on FX 5, there is a new heading (Modern film developers with ppd derivatives) and paragraph, as follows:

Modern film developers with ppd derivatives

In Germany, ppd derivatives have been used in black and white film developers to a much greater extent than elsewhere. Ultrafin SF and Emofin are two popular examples from Tetenal, Germany's prestigious photochemical supplier. A49 from Calbe (the former East German Agfa) is reported to be the same as the now discontinued Agfa Atomal F and is finding new popularity amongst European photographers with contemporary ISO 400 films.

[In the upcoming second edition, we plan to cover developers in Europe more thoroughly.]

p. 84.

In the chart, under ADAMS, the amount of metol now reads 7.5, instead of 5, and under LEITZ, Solution B now includes 6 grams of sodium sulfite.

p. 85. In the chart, the dashes in the line 'Water to make 1 liter' have been removed.

p. 93. The text in the right margin was rewritten as follows:

According to Bob Schwalberg, the best normal developing time for Tri-X (EI 400)in D- 76 1:1 is 8 to 10 minutes at 68F / 20C. To push one stop (EI 800) he recommended undiluted D-76 for 9 to 10 minutes. For pushing two stops (EI 1600) he recommended at least 12 minutes and found development beyond 15 minutes useless. These recommendations contradict Kodak's. A recent Dataguide recommends 9 minutes for normal time processing of Tri-X in D-76.In Schwalberg's system that amounts to a one–stop push. Schwalberg's thirty year dispute with Kodak over development times is legendary. According to Schwalberg, Kodak's longstanding policy is to build a generous safety factor into development times to prevent accidental

underdevelopment. Whatever the case may have been in the past, in the mid-1990s Kodak achieved an unprecedented level of rationality in its extensive development time charts for XTOL, which were supervised by Silvia Zawadzki, XTOL's formulator.

p. 106. The formula for TF-3 Alkaline Fixer has been changed as follows:

Instead of 50 grams of sodium sulfite there should be 60; and instead of 20 grams of sodium metaborate, there should be 5 grams. For help in fine-tuning this formula we greatly appreciate the insights and testing of Jed Freudenthal of the Netherlands.

p. 111. In the formula for Ansco 17M, the amount for sodium metaborate now reads as 2 grams, instead of 3 grams.

p. 112. At the top of the page, instead of pH meter, we now have pH meters, and midway down the page, instead of polyethylene plastic, we now have polyethylene bottles.

p. 115. Under section 5, instead of 'weight out' we now have 'weigh out'. Midway down, instead of 'cystal' we have 'crystal'. The last paragraph has been slightly rewritten to read as follows:

In the Jacobson developer, the grade of potassium carbonate is not specified, but it can be assumed to be anhydrous. Better results will be obtained with the crystalline grade. There is probably not a well-known developer that has been misprinted as frequently as the Windisch Pyrocatechin developer. It has been printed in dozens of books with substantial errors. This is the definitive formula with the definitive dilutions--we think (overleaf).

p. 116. In the left margin, under the formula for the Windisch Pyrocatechin Compensating developer (which we boasted we were printing correctly for nearly the first time--how pride doth go before a fall), we had ‘tock Solution A’ which now reads ‘Stock Solution A’. And instead of saying ‘We do not recommend presoaking . . .’ we now say ‘Generally, we recommend neither presoaking, nor the use of wetting agents during development.’

p. 118. Under the heading Monobath Formulas, the word ‘gitate’ now reads ‘agitate’.

p. 119. The paragraph just above ‘ACID STOP BATHS’ now reads as follows:

Washing time after monobath processing is exceedingly rapid because the solution is alkaline. No more than five minutes is needed for a wash to archival standards. However, as sodium thiosulfate is no longer considered the optimum fixing agent for modern films rich in iodide, it is hard to recommend the use of these traditional monobath formulas unconditionally. We have seen no formulas published for ammonium thiosulfate monobaths. Development would have to be exceedingly rapid.
p. 120. In the formula for F24, we incorrect wrote 250 grams of thiosulfate. As with most Kodak fixer formulas, the correct amount is 240.

p. 121 ‘Yetanother’ has been changed to ‘yet another’.

p. 126. The formula for FX 1 Stock Solution has been fixed, as already discussed at the top of this page. The formula for FX 1 working solution was always correct.

p. 132 Under the section ‘Protecting your lungs’, the third sentence now begins ‘Henry states: “Proper . . .” [i.e., a quotation mark was missing in the first printing.]

p. 139. very minor typographical corrections

p. 140. ‘Hupersensitized’ now reads ‘hypersensitized’.

p. 150. In the second column, the times for XTOL undiluted 32/64 were moved up two lines.

p. 153. At the top of the 2nd column on this page, the first three lines now read:

Acufine 400 5
Acufine 650 6
Acufine 800 7

p. 155. In the second column, under Kodak Verichrome Pan, near the bottom of the page, the time for PMK now reads ASA 125 for 11 minutes, instead of ASA 64 for 7 minutes.

p. 156. At the very top of the page, first column, the heading now reads ‘Kodak Verichrome Pan (continued)’ instead of ‘Ilford Delta 400 Pro (continued)’.

The footnote ‘continuous agitation’ has been removed.

The two Ethol UFG lines have been switched, so 400 comes before 1280.

The times for Rodinal 1+100 are now listed after the times for 1+75.

p. 158. At the top of the page ‘((continued))’ now only has the usual number of parentheses.

p. 159. The very last time given on this page was 1 minute for XTOL 1+3--an obvious error. The correct time is 17 minutes.

pp. 162, 163. some missing spaces were added, and ‘nozrmal’ now reads ‘normal’

The Film Developing Cookbook by Steve Anchell and Bill Troop is published by Focal Press, an imprint of Butterworth-Heinemann. It can be purchased directly from the publisher by calling 1-800-366-2665, or from Borders, Barnes & Noble, Amazon, and the other usual suspects.