

HANDMADE EMULSION

Workshop Proposal - Updated August, 2014



Overview

Workshop Description

Working with motion picture film today is both an intimidating prospect as well as an exciting one -- prior to this point in history, film was the product of a highly competitive industrial science which rapidly developed from the primal photographic processes of the late 18th century to the multi-layered, monopack films of meticulously engineered silver halide grains produced today. Despite this maturity, however, film was never anything more than a means-to-an-end for an industry which never really cared to understand what film was or what film could be. Given the comparative convenience of digital photography, therefore, both the technological and theoretical development of film has undergone a widespread abandonment among industry figures. However, in the wake of this abandonment, we've also been left with perhaps the most intriguing of opportunities: to take this industrial science and build within it a new medium with new ways of speaking, new ways of thinking and new ways of seeing...

In this two day workshop, participants will study the craft of producing black and white, silver gelatin emulsion by formulating, mixing and coating emulsion onto cellulose acetate and various other materials. Theories concerning emulsion chemistry and emulsion production will also be explored in this workshop, providing participants with a foundation to develop their own processes and methodologies.

Workshop Specifications

Workshop Duration: 16 hours over 2 days

Maximum Number of Participants: 12 participants, or maximum occupancy of space.

Requirements for Participation: None, though previous experience with film processing is strongly recommended.

Workshop Estimated Cost

Instructor Per Diem.....	50.00	EUR / day	
Instructor Travel Stipend.....	100.00	EUR	
Approx. Material Expenses.....	100.00	EUR	(see list below)
Approx. Equipment Expenses.....	0.00-120.00	EUR	(see list below)
 APPROX. TOTAL COST.....	 300.00 - 420.00	 EUR	

Press Materials

Images: http://processreversal.org/public/workshops/handmade_emulsion_EU/high_resolution_frames.zip

Video Examples: [1] <https://vimeo.com/101746043> [2] <https://vimeo.com/90145013>

PR Logo: http://processreversal.org/public/workshops/handmade_emulsion_EU/logo.jpg

Equipment Requirements

Below is a complete list of recommended equipment for the facilitation of the proposed workshop. Please note the following color coding:

Items marked in red **must be provided by the host**

Items marked in yellow should be provided by the host, but are **considered optional**

Items marked in blue will be **provided by the workshop facilitator**

Additionally, pictorial examples have been provided for each item...

Darkroom Equipment

1 x	Sink with Running Water	(example image)
3 x	Safelight, Kodak OC or equivalent	(example image)
1 x	LOMO tank, 2x50ft or 100ft model	(example image)
2 x	4L, Plastic or Glass Amber Bottles for Chemistry	(example image)
1 x	100 meters, string	(example image)
30 +	Uncoated paper clips	(example image)
1 x	Mortar & Pestle for chemistry	(example image)
1 x	50 ml graduated cylinder [glass preferred]	(example image)
1 x	100 ml graduated cylinder [glass preferred]	(example image)

Emulsification Equipment

1 x	Griffin, Low-Form, Glass Beaker - 600.0 ml	(example image)
2 x	Griffin, Low-Form, Glass Beaker - 250.0 ml	(example image)
2 x	Griffin, Low-Form, Glass Beaker - 100.0 ml	(example image)
1 x	Thermometer, 0-100 degree celsius scale	(example image)
1 x	Hot Plate, unexposed element	(example image)
1 x	Metal cooking pot, approx 3 Liter capacity	(example image)
1 x	Stainless steel processing tank with lid	(example image)
2 x	Luer-Lock, Syringe - 50cc	(example image)
2 x	Luer-lock, IV Extensions - 500mm	(example image)
1 x	30G Blunt, Luer-Lock Syringe Tip	(example image)
1 x	25G Blunt, Luer-Lock Syringe Tip	(example image)
1 x	Thermostatic Magnetic Stirrer & Hotplate	(example image)
1 x	30mm Cross Stirbar	(example image)
1 x	20mm Stirbar	(example image)

Washing Equipment

1 x	Fiberglass Mesh Screen, 500mm x 500mm or greater	(example image)
1 x	Packet of unbleached cheesecloth	(example image)
1 x	Bucket with spout, 5 Liter capacity or greater	(example image)

Coating Equipment

2 x	Unmounted, Identical film rewinds	(example image)
4 x	Clamps for mounting the rewinds	(example image)
2 +	20mm Hake Style, Unbleached Brush	(example image)
1 x	Additional, unmounted film rewind	(example image)
2 x	Hub Disk	(example image)
12 x	5mm x 200mm rod	(example image)
6 x	5mm x 1000mm rod	(example image)

Photography & Printing Equipment

1 x	Reflex Bolex	(example image)
1 +	C-Mount Lens	(example image)
1 x	Rewind crank for Bolex	(example image)
4 x	30 Meter x 16mm, Daylight Spool	(example image)
1 x	Medium Tripod	(example image)
1 x	Sync Block	(example image)
2 x	120+ Meter Take Up Reel	(example image)
1 x	Light Meter	(example image)

Analyzing Equipment

1 x	16mm Projector	(example image)
1 x	120+ Meter Take Up Reel	(example image)
1 x	Light Table	(example image)
1 x	Loupe	(example image)

Material Requirements

Below is a list of expendable materials which will need to be invested in for the workshop. The color coding is the same as before:

Items marked in red **must be provided by the host**

Items marked in yellow should be provided by the host, but are **considered optional**

Items marked in blue will be **provided by the workshop facilitator**

Additionally, pictorial examples have been provided for many of the items...

Emulsion Chemistry

40.0	Grams	Silver Nitrate -- AgNO_3	(example image)
50.0	Grams	Potassium Bromide -- KBr	(example image)
50.0	Grams	Sodium Chloride -- NaCl	(example image)
500.0	Grams	Unflavored Food Gelatin	(example image)
500.0	Milliliters	Kodak Photo-Flo 200	(example image)
16.0	Liters	Distilled Water	(example image)
10.0	Kilograms	Ice	(example image)

Processing Chemistry

4.0	Liters	Kodak D-76, or equivalent	(example image)
4.0	Liters	Hardening Fixer	(example image)

Print Stocks

120.0	Meters	Kodak 7302 Print stock, or equivalent	(link)
120.0	Meters	Pre-subbed acetate base	(example image)