

HANDMADE EMULSION

Workshop Proposal - Updated October, 2015



16mm still from "Handmade Emulsion" workshop with Sight Unseen - Summer, 2014

Overview

Workshop Description

While in no way a replacement for commercially produced film stocks, hand making and coating silver gelatin emulsions can lead to new and creative ways of forming cinematic images. In this two day workshop, participants will learn to exercise this technique by adopting various D-I-Y strategies to generate black & white emulsions for both in-camera photography and printing purposes. Along the way, theories concerning emulsion chemistry and production will also be discussed so that participants can expand upon them in their own work. Finally, the basic procedures for cinematography, photo-processing and contact printing (with a bolex) will be demonstrated, forming a complete practical overview of the silver-gelatin process.

Workshop Specifications

Ideal Workshop Duration: 16 hours over 2 days

Minimal Workshop Duration: 6 hours over 1 day

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

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

Workshop Estimated Cost

Instructor Per Diem ¹	30.00	USD / day	
Instructor Travel Stipend ²	100.00	USD	
Projected Material Expenses ³	90.00	USD	(detailed list attached below)
Projected Equipment Expenses ⁴	40.00	USD	(detailed list attached below)
 APPROX. TOTAL COST.....	 320.00	 USD	

Promotional 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/press/logos>

¹ The per diem is intended to offset the cost of living expenses incurred by the facilitator during travel, workshop preparation and facilitation of the workshop itself.

² The travel stipend is intended to offset the cost of all travel expenses related to the workshop, including get to and from the venue.

³ The material cost is all cost related to expendable (non-reusable) items, such as chemistry and film stock.

⁴ The equipment cost is any projected cost for reusable items, such as film reels, projectors, etc. This cost varies depending on what is readily available at the venue or otherwise...

Facility Requirements

Ideally, this workshop would make use of several separate rooms as described below, but this is rarely the case. Rather, this workshop has been done in anything from professional laboratories to massive daylight lite warehouses to tiny garages. Typically, a **traditional darkroom** is used for the workshop, but anything that can be made to accommodate the following needs can also be used:

Dark Space

This space will be used to make the emulsion, coat the emulsion and photograph a contact print. It must be...

- Completely Light Tight
- Able to be entered and exited from without introducing light
- Ventilated
- Large enough for all the participants (and facilitators) to stand in without feelings of suffocation.
- Contain Safelights, Electrical Outlets, and a table / work surface that everyone can see.

Processing Space

This space is where the emulsion will be washed and the film will be processed. It must be...

- Completely light
- Contain a sink and running water
- Contain Safelights
- Fit at least 3 participants

Projection / Lecture Space

This space will be used to eat food, lecture and discuss emulsion chemistry, and to watch the results (eventually). It must be...

- Large enough to fit all participants and a projector
- Have access to electrical outlets

Outside

Somewhere outside with alot of daylight and cool things to photograph.

Photography & Printing Equipment

4 x	100 foot (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	Photo Enlarger	
1 x	Reflex Bolex	(example image)
1 +	C-Mount Lens	(example image)
1 x	Rewind crank for Bolex	(example image)
1 x	Light Meter	(example image)

Analyzing Equipment

1 x	White Board, or something to write on!	
1 x	16mm Projector	(example image)
1 x	400 foot (120 Meter), or greater, Take Up Reel	(example image)
1 x	Light Table	(example image)
1 x	Loupe	(example image)
1 x	Digital projector	

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

30.0	Grams	Silver Nitrate -- AgNO ₃	(US Supplier , or Purchase from PR)*
50.0	Grams	Potassium Bromide -- KBr	(US Supplier , or Purchase from PR)*
50.0	Grams	Potassium Iodide -- KI	(US Supplier , or Purchase from PR)*
10.0	Grams	Sodium Thiosulfate, Pentahydrate	(US Supplier , or Purchase from PR)*
40.0	Milliliters	Kodak Photo-Flo 200	(US Supplier)*
50.0	Grams	Sodium Chloride -- NaCl	Grocery Store
500.0	Grams	KNOX Unflavored Food Gelatin	Grocery Store
16.0	Liters	Distilled Water	Grocery Store
10.0	Kilograms	Ice	Grocery Store

Processing Chemistry

4.0	Liters	Kodak Dektol, or equivalent	(Supplier)
4.0	Liters	Hardening Fixer	(Supplier)

Print Stocks

60.0	Meters	16mm ORWO PF2 print film	(Purchase from PR)
60.0	Meters	Pre-subbed acetate base	(Purchase from PR)

*In Canada, contact Nymoc Chemicals in Toronto by phone: <https://plus.google.com/111988851146358298635/about?hl=en>