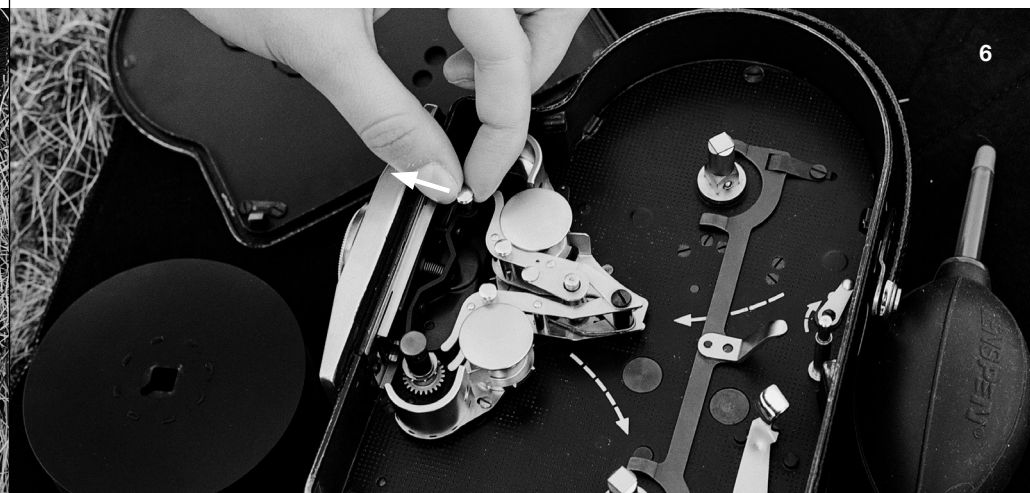
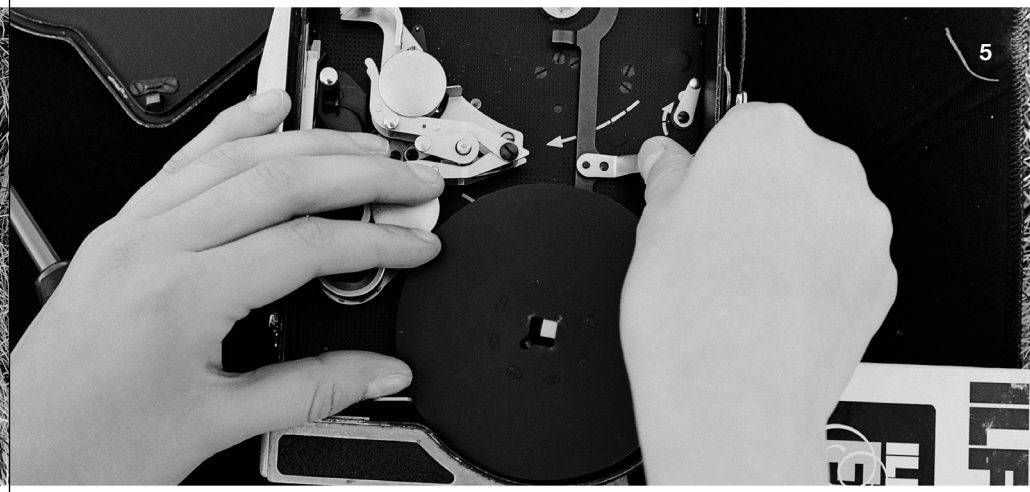


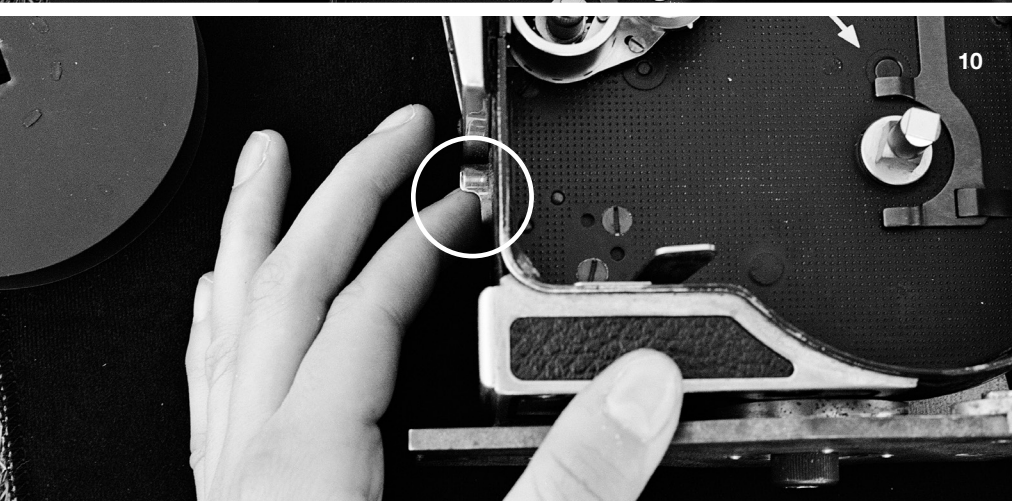
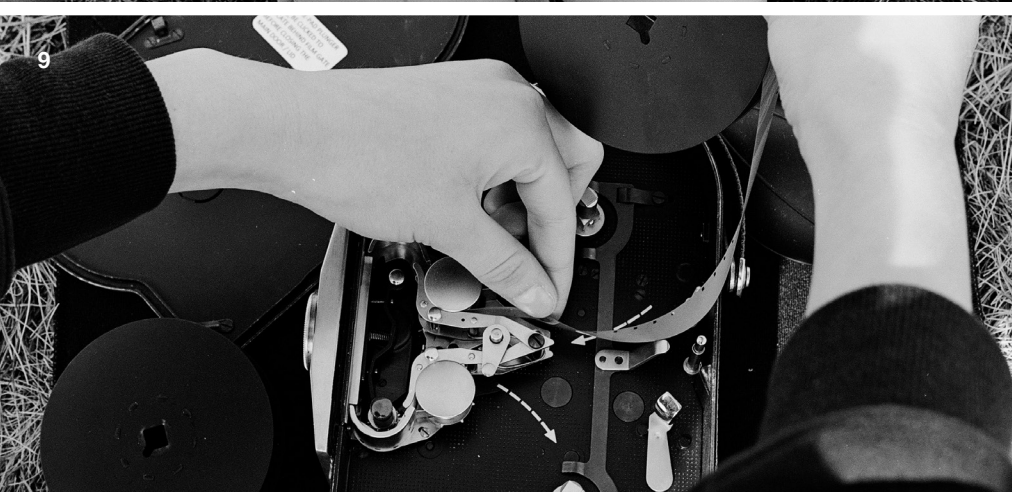


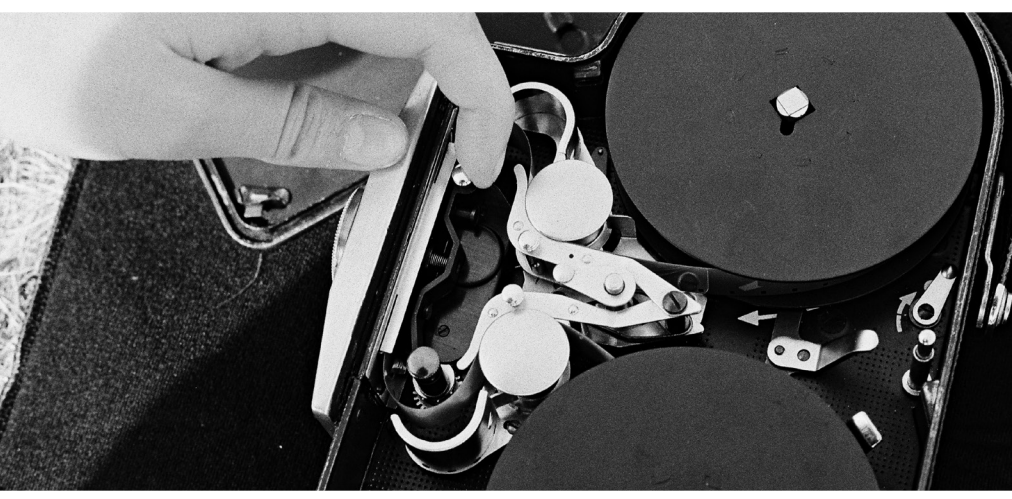
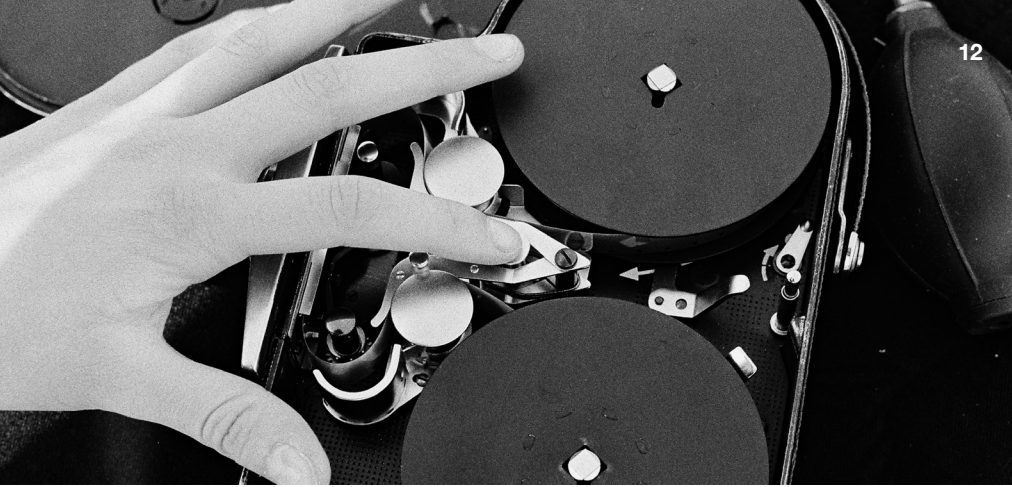
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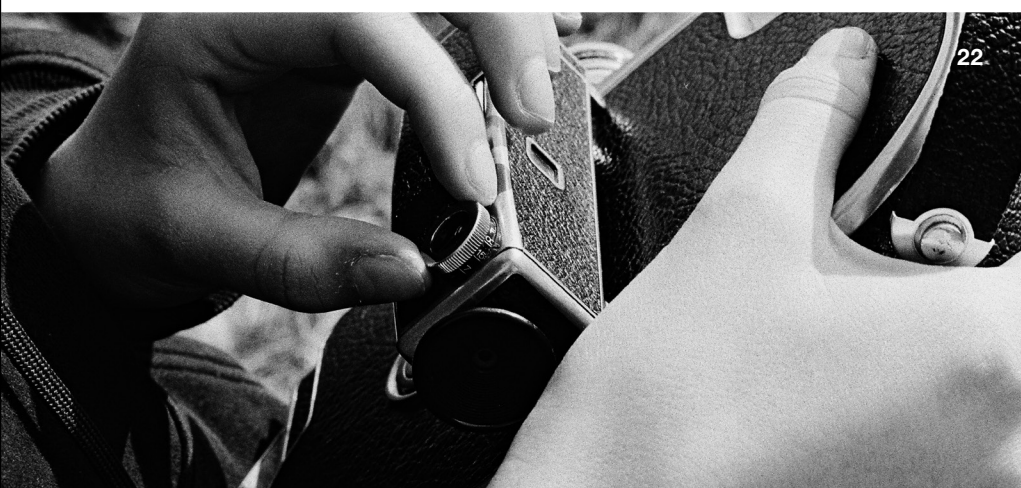
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PAILLARD BOLEX H16 NON-REFLEX 16MM CINE CAMERA
with Eglantine Salmon Wiand, on Ben Lomand, Scotland

LOADING THE CAMERA

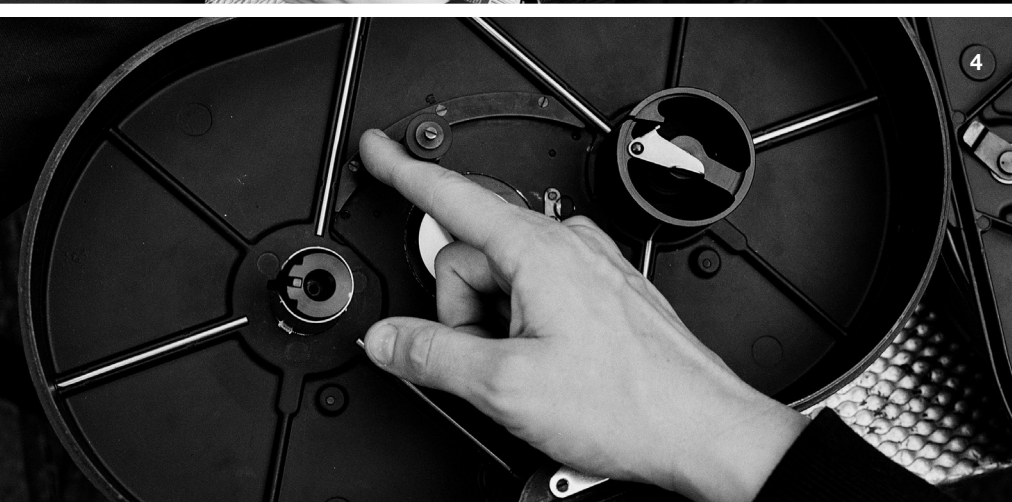
- 1 Place your camera in a shaded, dry spot with the footage counter side facing you. If there is no shade, use your body to shield the camera from the sun.
- 2 Set the frame rate to 12; this is not necessary but something I like to do in case there is a film jam.
- 3 Unlock the lever and wind counterclockwise until it stops. Then lock back into place.
- 4 Turn the camera over and open the cover by moving the lock into O position.
- 5 Remove the take up spool by pressing the release lever.
- 6 Move the pressure plate into the locked position and close the loop formers.
- 7 Use a blower or canned air to remove any dust or particles from the body.
- 8 Take your 100 ft daylight loading spool out from its box and remove the tape. I usually put the tape onto the box lid to make sure it's out of the way.
- 9 Feed your film leader into the upper sprocket, it should be snug in the guide. Bolex suggests placing it on the upper spool shaft and feeding it from there. I hand hold it for loading, then place on the shaft.
- 10 Briefly run the camera to automatically load the film through loop formers and out the end of the mechanism.
- 11 When you have approx. 20 cm of film free, feed the end onto the take-up daylight loading spool through the slot in the centre. Wind a few turns and then secure the spool on the lower spool shaft.
- 12 Open the loop formers and make sure the film plate is locked in position.
- 13 Close the lid and lock. Make sure the lid is secure and the lock set. Tape if necessary.

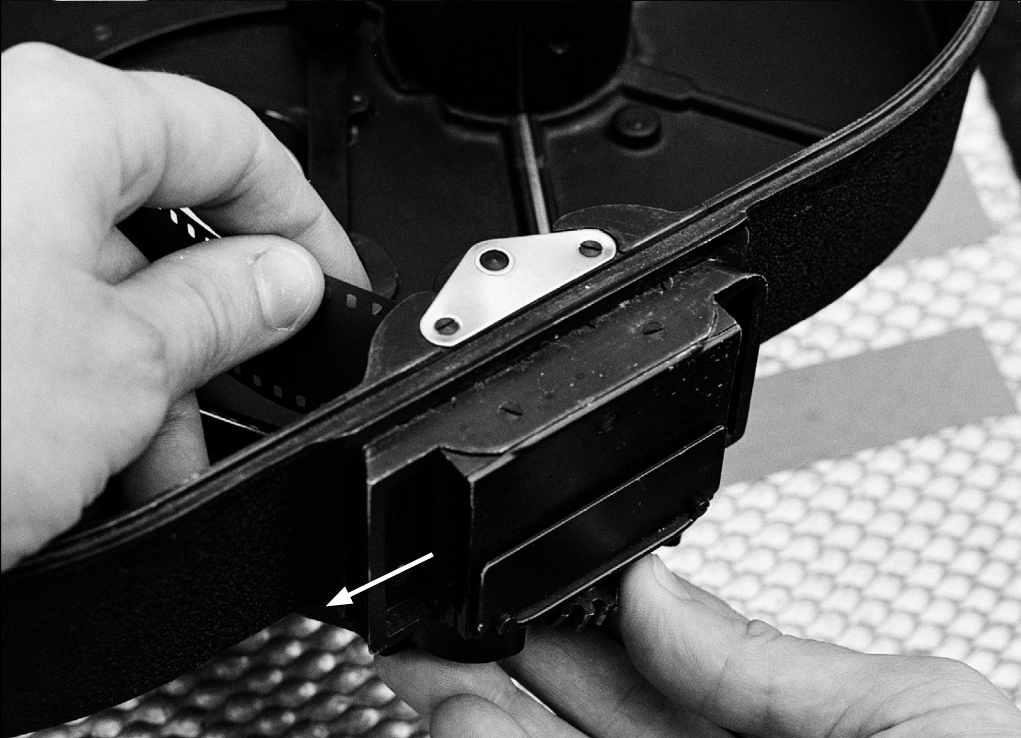
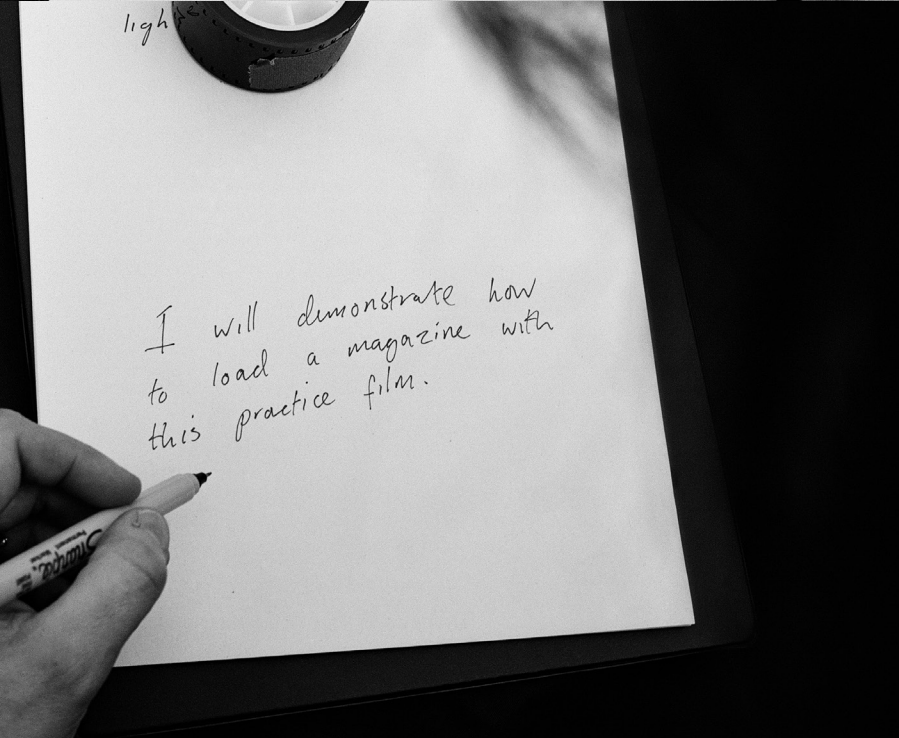
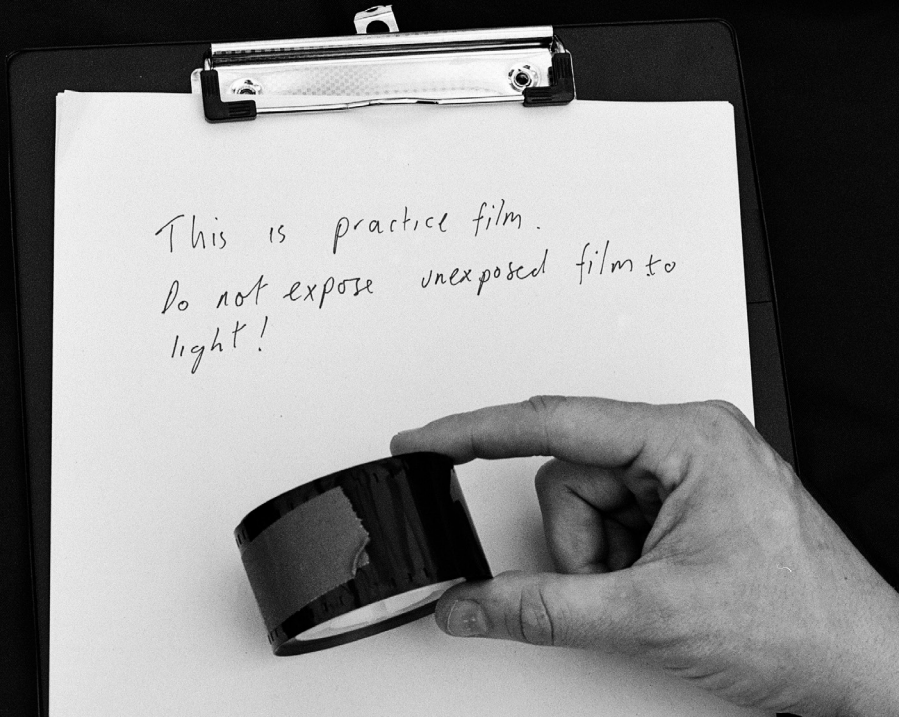
FILMING

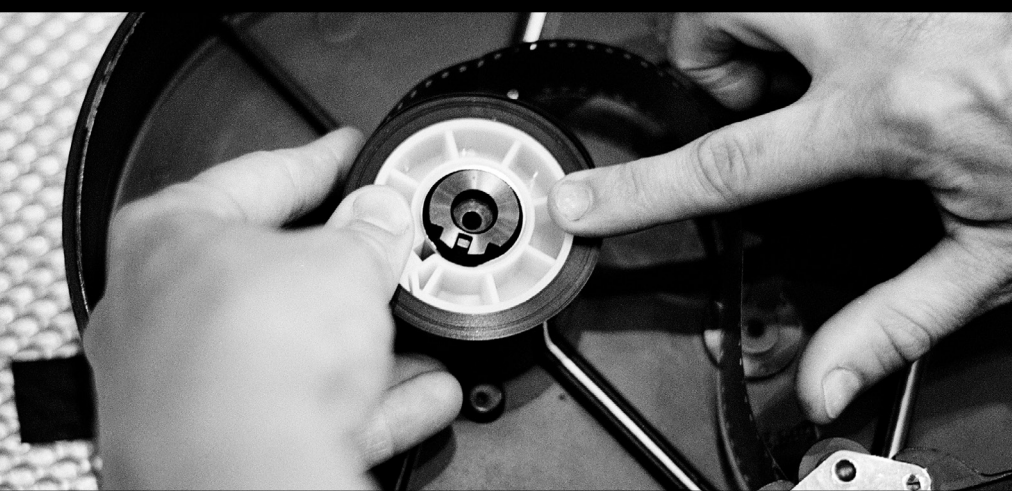
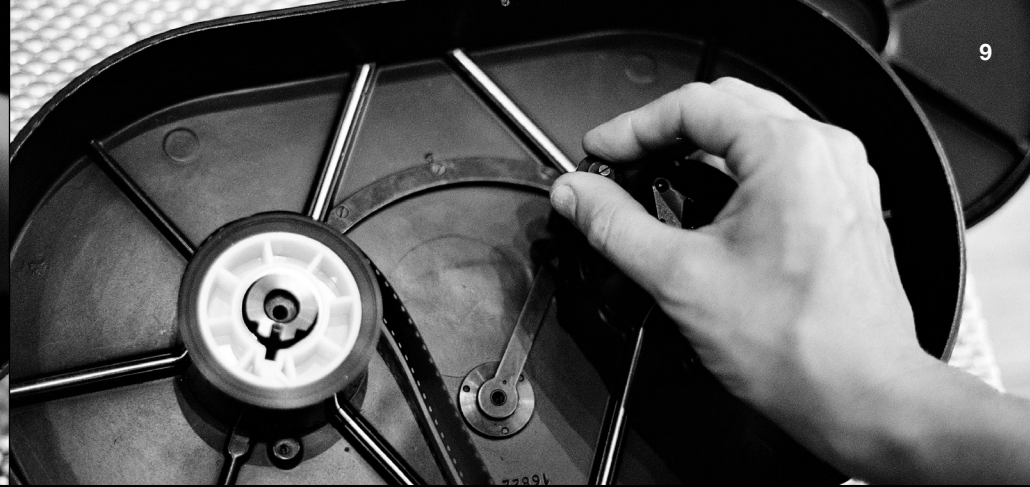
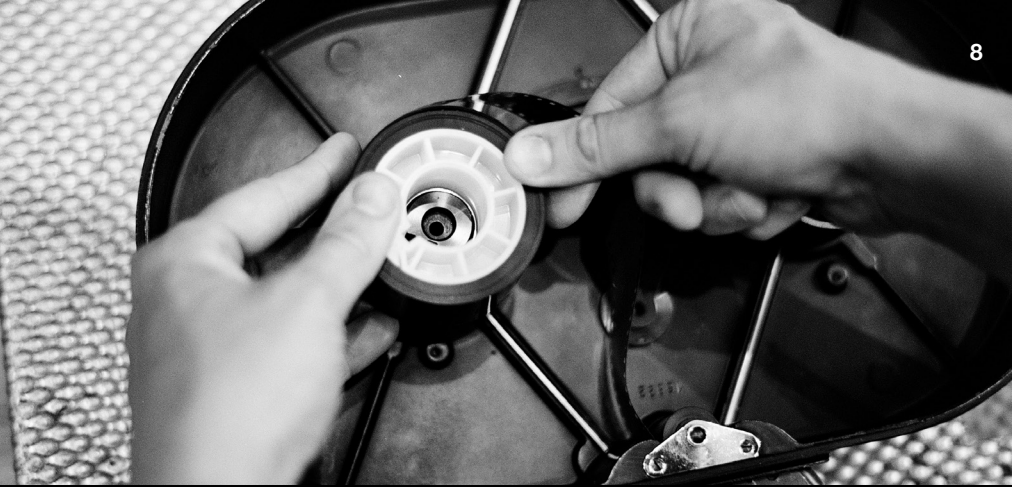
- 14 Remove the camera body cap and place a lens of your choice onto the lens mount. (Bolex has two types of mount, this one is a C mount, which is screwed on.) Remove the lens cap.
- 15 Place the multifocal viewfinder in position and lock into place.
- 16 Set the correct focal length for your lens on the multifocal viewfinder.
- 17 Set desired frame speed; 24/25 frames per second (fps) is considered standard to capture and represent "normal" motion. Higher fps will appear slower, whilst lower fps will appear faster, in general, when projected/scanned.
- 18 Take a meter reading of the highlight and shadow in the place you are filming. Make sure to set your ISO and fps on the meter. The reading will help you decide the appropriate f-stop for the lighting conditions of your shot. A general rule is to expose more for your shadows in negative film and for your highlights in reversal film. Make sure to take a new reading if the lighting or location changes!
- 19 Put the correct aperture setting onto your lens.
- 20 Then, either by estimating or with a tape measure, set the focal distance on your lens using the guide on the lens barrel.
- 21 Wind your camera counterclockwise until it stops, then lock the lever back into position.
- 22 Set this distance in your multifocal viewfinder. Use the viewfinder as a guide for framing—remember that on this model you are not looking through the lens. A non-reflex system will take some practice to use, but it will become intuitive over time.
- 23 Take a deep breath and film. You will need to rewind your camera after approx. 28 seconds filming at 24 fps.

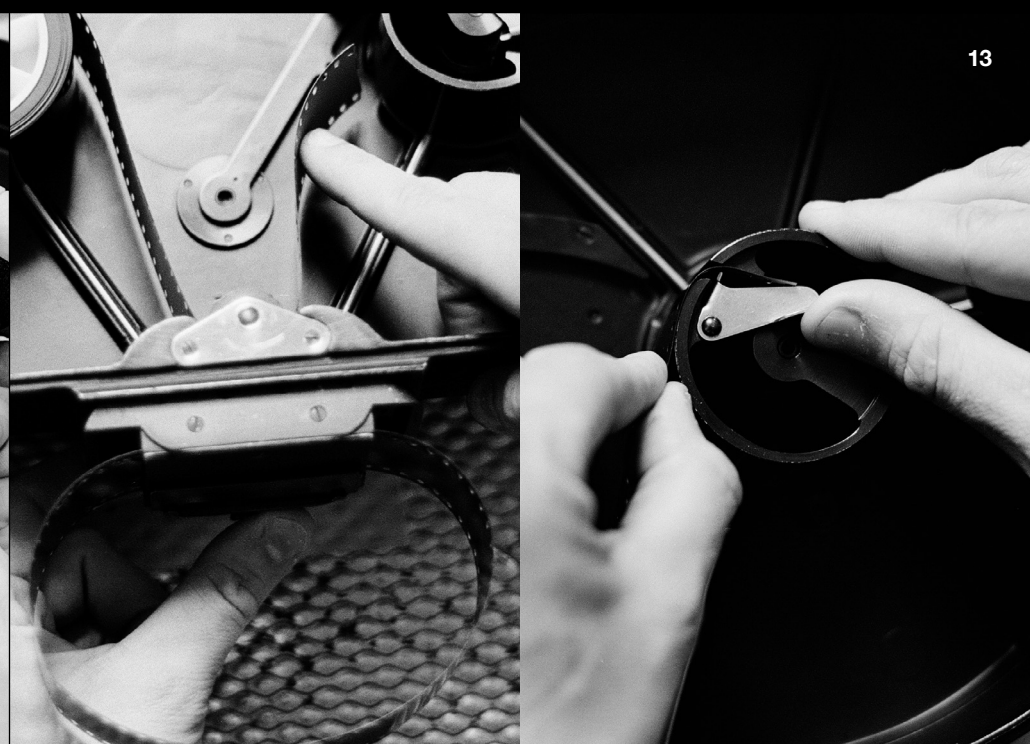
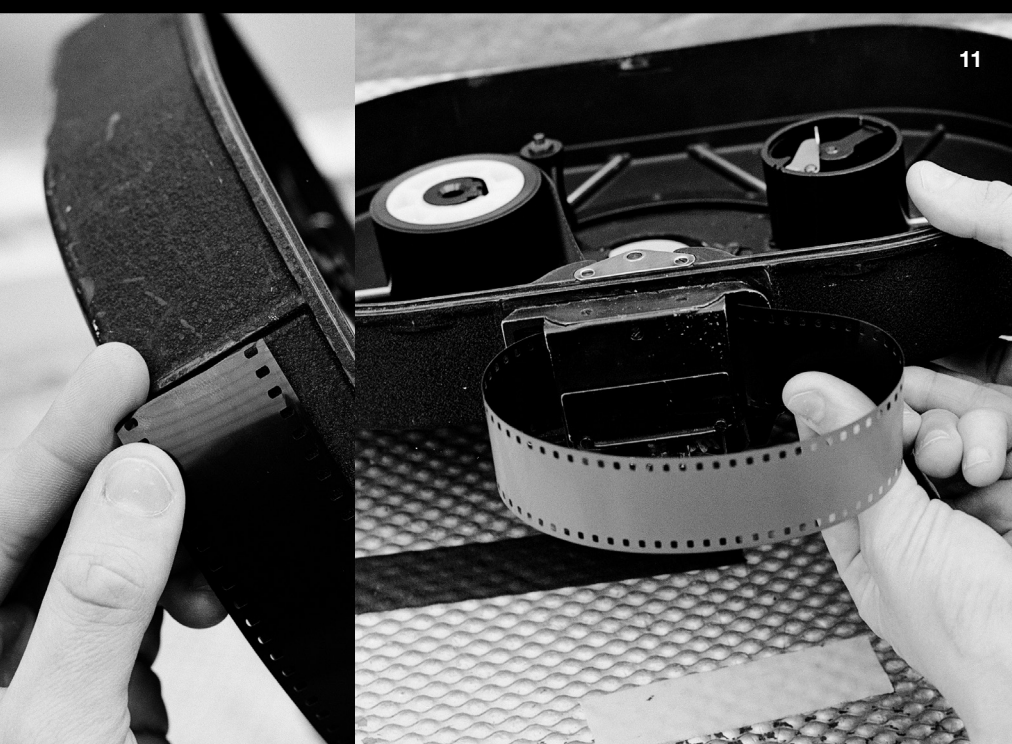












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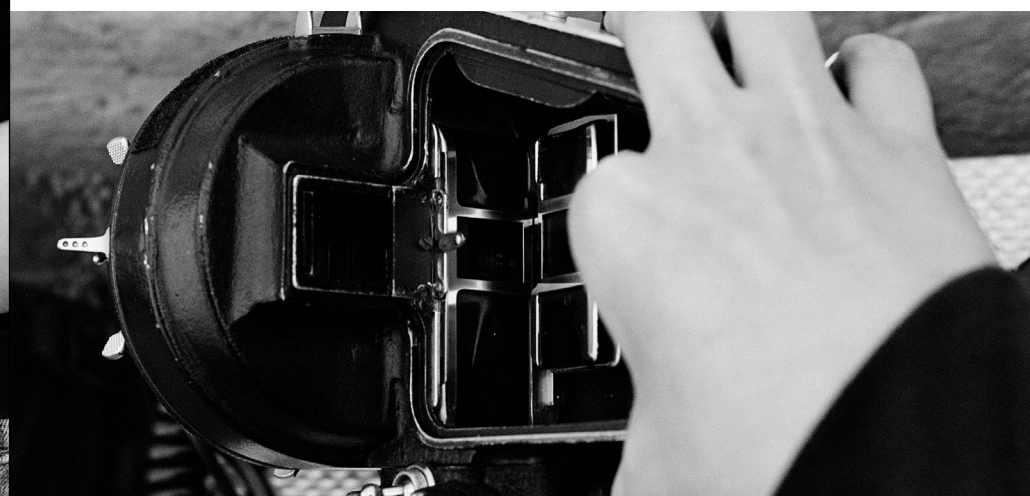
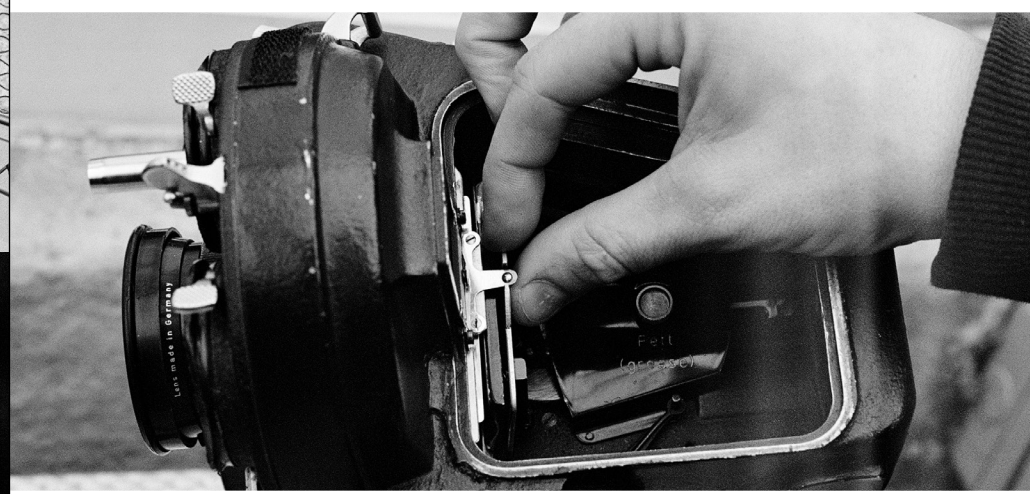
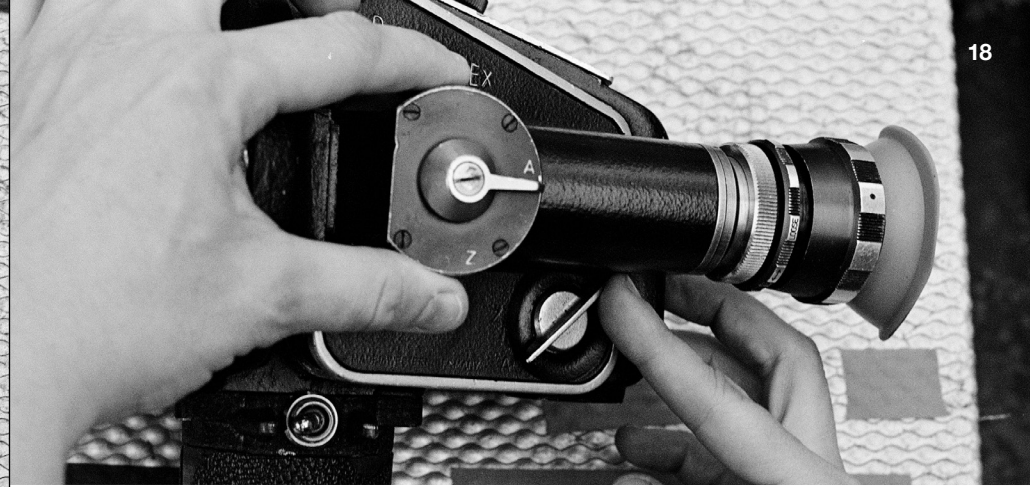
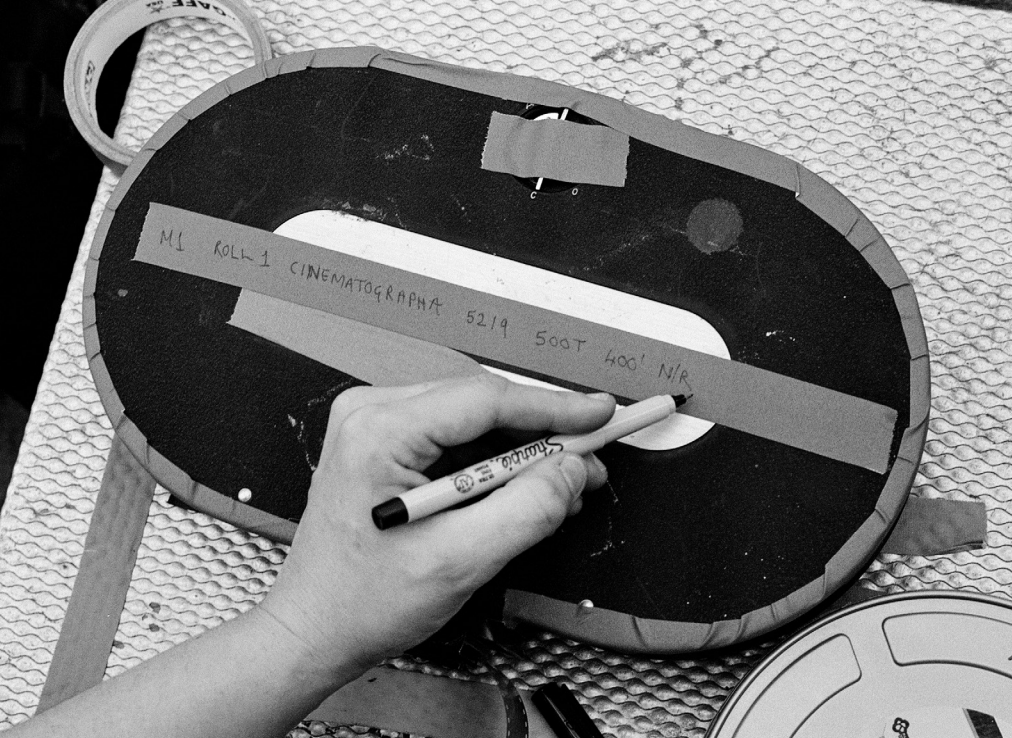


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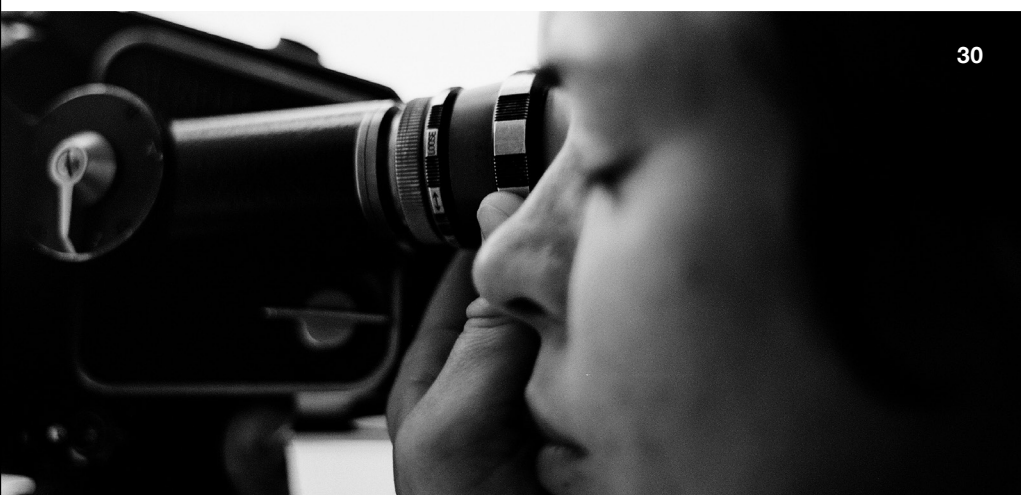
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ARRIFLEX IIC 35mm CINE CAMERA with Jen Martin at Kibble Palace, Glasgow Botanic Gardens

LOADING THE MAGAZINE

- 1 Find a clean, flat surface. Place your changing bag/tent on the surface and take out your film, magazine and canned air.
- 2 Unlock the magazine cover, lift it off by angling it downwards, and put it to the side.
- 3 Use your canned air or blower to clean dust and particles from the inside of the magazine
- 4 Move the film tension roller inside to the right.
- 5 Unzip your changing bag and place the magazine and film can inside, then zip closed. If you are working on location and do not have access to a completely dark, light-tight room, use a changing tent or changing bag.

IN DARKNESS

- 6 Place the magazine flat, with the rollers facing your position. Take your film out of the light-safe bag and put the bag back inside the can. Detach the end of the film from the roll. Put the tape on the inside of your film can or someplace out of the way.
- 7 Holding the film roll carefully so that it doesn't unravel, place the roll over the magazine as if the film leader is going downwards, clockwise, and insert it into the left side feed sprocket until it emerges from the left-hand film channel.
- 8 Slide the film roll onto the left-hand spindle; turn the spindle with the roll static until the spring snaps into the core groove. It will click when in place.
- 9 Flatten the film roll and core against the magazine; make sure the film is not deformed or misshapen. Unlock the tension roller and swing back so that it is touching the newly loaded roll of film.
- 10 Well done! Pull the end of the film along the outside of the magazine (left side) until it reaches the raised line—the "marking rib". This is the correct length to form a film loop for your camera. Do not pull more film out of the magazine after you have measured your "loop". If you do, then use the spool to roll some back on and remeasure your loop using the marking rib.
- 11 Bring the film back to the film channel (without twisting!). Gently guide the film leader into the right film channel.
- 12 Using the gear mechanism and making sure that the loop is intact, move the film leader through to the empty take-up core.
- 13 The film leader is then inserted into the slot on the core, moving clockwise, and locked into place.
- 14 Wind the film onto the core a few turns and make sure that the film is running through smoothly, with the loop stable.
- 15 Close the lid and lock the magazine. Check that the lid is on and locked before you remove the magazine into the light. I pick up the magazine by the outside cover and test that it's fully attached.

IN LIGHT

- 16 Place gaffer tape over the magazine lock and edges of the lid. Using a strip of gaffer tape across the centre of the magazine, write a label identifying the roll/DOP/production/film type/length etc.



LOADING THE CAMERA

- 17 . . . Have your external battery and power cable charged and nearby. I use a battery belt for my camera.
- 18 . . . Unlock and remove the camera door by moving the lever from Z to A, then open the film gate.
- 19 . . . Using canned air, gently blow away any dust or particles from the inside.
- 20 . . . Move the magazine lock into the opening position by turning the knob to the left and pulling it out, releasing the body cap.
- 21 . . . Now pass the film loop carefully through the opening at the top of the camera, making sure not to extend your loop.
- 22 . . . The magazine will click into place on top by angling the bottom edge first and then the top. You will need to pull the knob to the left and out again, then once the magazine is in place, turn the knob to the right to lock. This is a very important step! Make sure the magazine is snug and locked, and that there is no film jammed between the magazine and the camera.

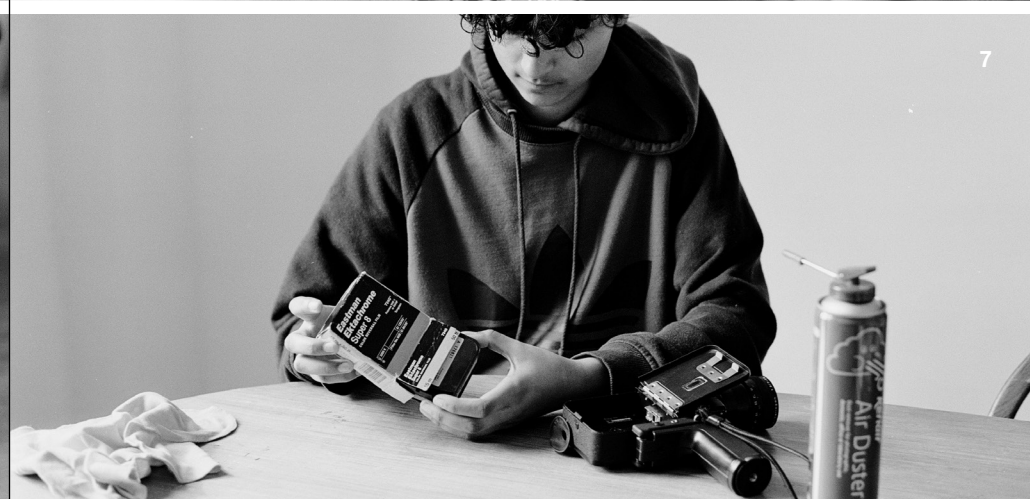
The loop you have formed should sit nicely in the camera body, and roughly follow the guideline provided on the upper left corner. If you are unsure of the correct tension, as this will affect the stability of the image (if you care about stability!), Arri suggests that there should be “fifteen perforation holes between the mouth of the magazine and the uppermost point reached by the claw in its travel.”
- 23 . . . Use the driving gear on the opposite side of the camera, as well as your fingers, to finesse the position of the claw and the film so that the loop tension is correct, and the claw is lined up with a perforation. Also make sure that the emulsion side of the film is facing the gate.
- 24 . . . Close the film gate. This should be a simple click into place; if the film is not lined up with a perforation it might be more difficult to close, and you'll have to refine your loop/film position.
- 25 . . . Plug in your battery and lower your frame rate. I do this to save film and avoid any big jams if something is wrong.
- 26 . . . Run the camera and test that the film is moving smoothly.
- 27 . . . Replace the camera door and secure the lock.
- 28 . . . Tape around the edges of the door and over the lock.

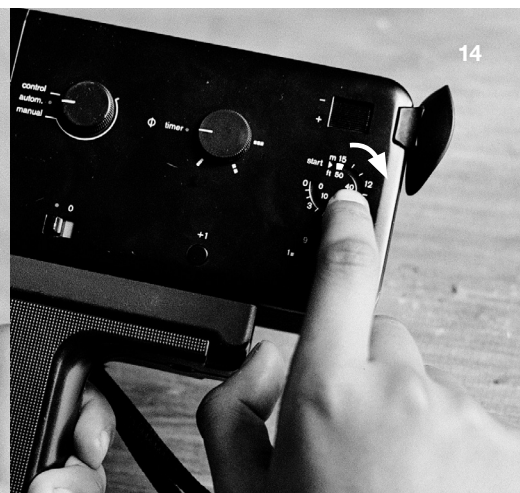
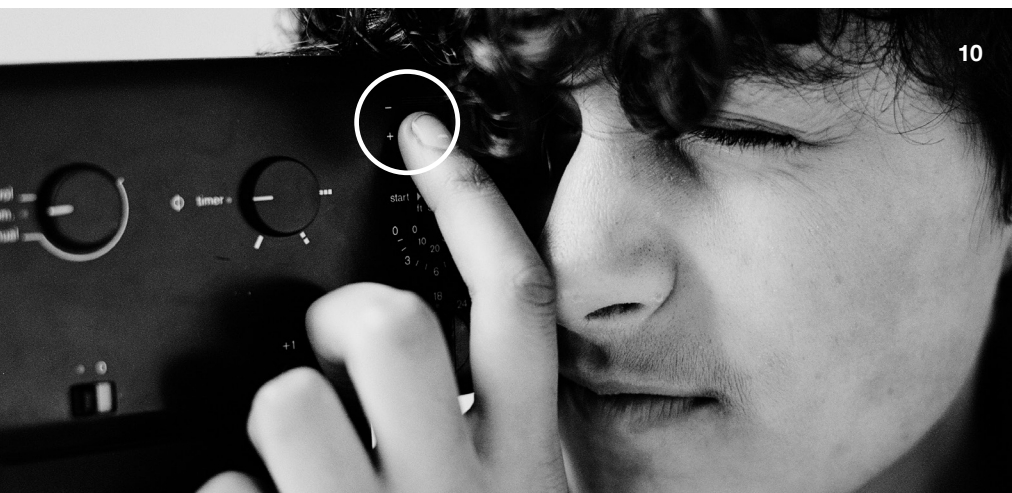
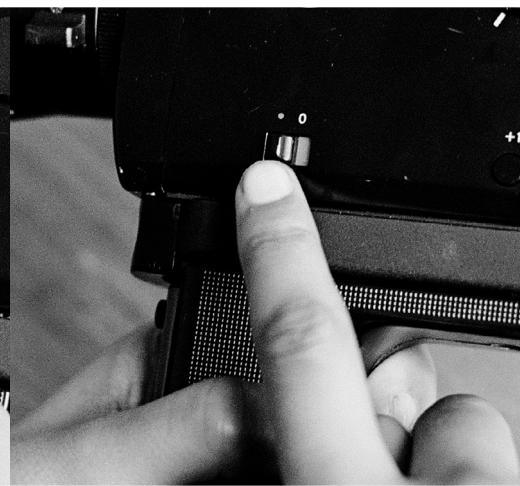
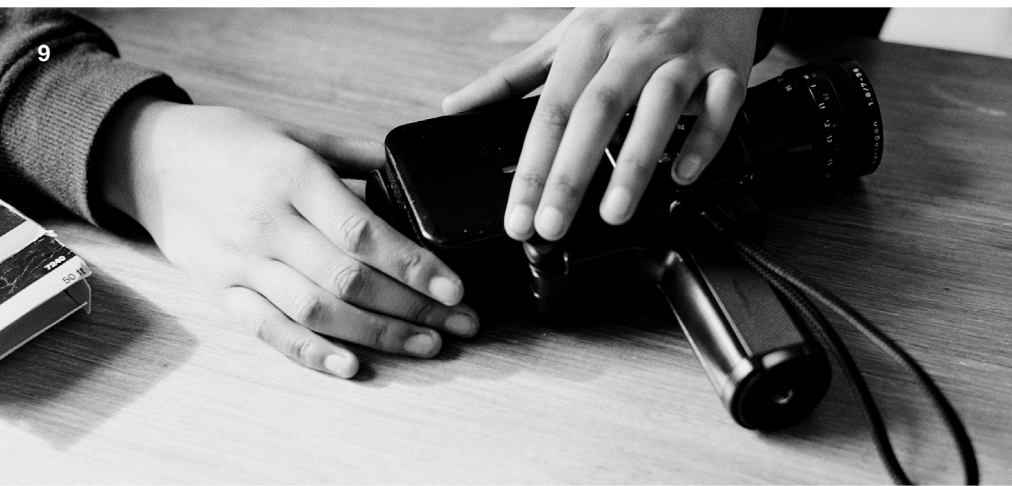
READY TO FILM!

- 29 . . . Set your frame rate to 24/25 fps; this is around 9 on the variable speed motor base on my camera.
- 30 . . . Check the diopter on the viewfinder is set to your eyesight. You know it is correctly adjusted when the lines and writing on the viewfinder screen are sharp.
- 31 . . . Take a light meter reading of the highlight and the shadow in the place where you are filming. Make sure you have the correct ISO and fps on your meter. If the lighting conditions change, read the light again and alter your exposure, or if you are in a rush, make an informed guess.
- 32 . . . Take off your lens cap and adjust your aperture setting on the lens to correspond with your exposure readings.
- 33 . . . Check your fps by running the film and looking at the tachometer.
- 34 . . . Focus and film. You might want to use a shoulder brace and/or lean against something stable in order to work with this particular camera model.

BRAUN NITZO SUPER 8mm CAMERA







BRAUN NITZO SUPER 8mm CAMERA
with Lida Vincent Agarwal at Clouston Street, Glasgow

- 1 Find a clean flat surface and prepare your materials. It is useful to have canned air and a lens cloth at hand. Also check that you have fresh batteries for the camera!
- 2 Unscrew the cap, load batteries into the battery compartment in the handgrip and close.
- 3 Swing the handgrip into position and lock.
- 4 Gently clean the lens with a soft cotton cloth.
- 5 Press the release catch on the rear end of the camera and open the cartridge compartment.
- 6 Clean away any dust or particles in the cartridge compartment with canned air or an air blower.
- 7 Take the film out of its box, preferably in the shade or low light.
- 8 Insert the film cartridge at an angle and with the film facing the lens of the camera. The cartridge label should be facing you.
- 9 Close the compartment door. It should click shut and lock into place.
- 10 Adjust the diopter to your vision using the dial to the left of the viewfinder.
- 11 Set your (auto exposure guide to daylight or interior light.
- 12 Turn your camera on.
- 13 Set your frame rate; 18 fps is a standard speed for Super 8mm.
- 14 Run through a tiny amount of film. Check on your footage counter that the film is running through. If it is not, double check that the film is winding forward; sometimes it's helpful to set a faster fps to help the winder catch.
- 15 Frame, focus and film.



The title, *guide*, is apt; it implies a social process, which all learning (and teaching) is. How we think about and use our tools and materials affects the work that we make, and how we learn informs it too. In this pamphlet you'll find a *friendly* learning visual and written guide to the loading and basic use of three cine cameras. The techniques illustrated are based on a self-taught, artist's practice. You can follow just the photographs or just the text but the two are also linked together numerically.

The photographs were made with friends and family using my own cameras and technical know-how. You might not agree with everything I suggest; there is certainly much more to learn, so pick and choose what is helpful to you. These cameras invite a ritualistic, repetitive process, but that process can be altered and adapted to suit the creative intentions of the person at work. I look forward to seeing what you make. Enjoy!

Many thanks to Jen Martin, Eglantine Salmon Wiand and Lida Vincent Agarwal for demonstrating the cameras and sharing their images.

Photographed with a Nikon F1, 50mm 1.4 lens on Ilford XP2.

Margaret Salmon

AN ARTISTS' GUIDE TO ANALOGUE CINEMATOGRAPHY

