
Worldwide Pinhole Photography Day



Workshop and Event Planning Guide

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Introduction

So... You've decided to organize a pinhole photography event? Excellent! And you'd like to have it be part of the Worldwide Pinhole Photography Day? Better yet! This paper can help, whether or not the event is part of WPPD. It suggests ideas and lists resources for organizing and conducting the workshop. This paper is neither an exhaustive list of possibilities, nor a simple cookbook approach. Its suggestions should stimulate ideas that will save time and help make your event a success.

What type of event are you planning?

A lecture will be short, with you doing most of the talking. You could show your prints, or slides of your work or the work of others.

A social event could simply be getting together with a like minded bunch of tiny aperture photographers to view each other's work, exchange ideas, or join in on a WPPD photo expedition.

A workshop is a class that you'd be teaching to others. It could be one day, or last several weeks. Most of this document was prepared to help with workshop organization.

How many people will be attending?

The number of attendees will dictate how much you can accomplish in a workshop.

- How many people can you comfortably teach at once (this will depend on your experience as a teacher)?
- Do you need an assistant or will you be teaching with another person? If teaching at an art center, the gallery may be able to provide an assistant. Alternatively, one of the workshop students may be able to be an assistant for a break in tuition.
- The number of attendees will be limited by the size of darkroom facilities, if you're using them, as well as the classroom you'll be teaching in.



What type of cameras will you use?

- Already built cameras loaned to the students for the day. You would need to have enough to let each student use one. It would be better if all cameras were the same type, to make exposure and other operations consistent.
- Partially built cameras.
- 35mm SLR with body cap.
- Commercial pinhole camera kit.
- Kit that you've prepared the pieces for.
- Cylinder camera (oat meal box or similar).
- Cigar box.

For a workshop, how long will it be?

The length of the workshop has a major impact on the amount of material that can be covered, what types of cameras are constructed or used, and how much time is spent making images.

For a short workshop, a day or less, try either:

- Using 35mm body caps fitted with a pinhole. The film can be processed at a 1-hour lab, and the images reviewed the same day. Polaroid film can be a good choice in this situation, but it can be an expensive one.
- Nearly completed cameras. These could be cigar boxes, cans or foam-core cameras that are complete to the point of adding a pinhole (which the students will make in the workshop).

Longer workshops give more freedom for building complete kits (using a Besseler kit, assembling a camera from scratch from foam core or helping students build cameras from their own supplied materials). Longer workshops can:

- Give more time to fine-tune exposure.
- Provide more time to work with students to refine their pinhole eye.
- Allow some experiments with zone plate or slit photography.



Audience (young, old, experience level)

This is a factor on how you will balance technical information with just plain fun. Naturally, youngsters will go for the fun part. Experienced photographers can better understand the nuances of reciprocity failure, color shifts and using light meters for calculating exposure.

Darkroom and other facilities

If one is available, what can be done in the darkroom, and what is practical for the workshop?

- Film development
- Paper development
- Contact printing
- Enlarging
- Scanning into a computer (especially useful for a WPPD event)

Be sure that the room you're using can accommodate your workshop.

- Enough tables
- Enough chairs
- White boards, markers, flip charts
- Projector (if needed)

What Will the Price Be?

The price for the workshop will need to cover these items:

- Materials
- Food / snacks / beverages
- Facility rental or donation to gallery
- Copying handouts
- Profit (if you do this for a living)

Consider what the audience can afford or what other workshops cost. If your one-day workshop is geared to high-school students, the cost shouldn't be \$125. On the other hand, if an experienced, reputable photographer is offering a similar workshop to the general public for \$125, you better have a good reason to charge \$350.



Publicity

How will people find out about your workshop? Some ways to get the word out include:

- Pinhole Visions website www.pinhole.com
- Pinhole Day website www.pinholeday.org
- Other websites: yours, the gallery's site; the school's site;
- Gallery or photo club newsletter
- Mailing to select group (camera club list, etc.)
- Flyers or posters at camera stores
- Local newspapers



Where to make images

Is your workshop site in a photogenic area (at least photogenic enough to make a reasonable photo)?

- Is it within walking distance?
- Is it within driving distance? (Car pooling? Everyone drives? Bus?)
- What sort of images can be made there? Do they lend themselves to pinhole imagery?

Be sure to have an alternate plan in case of bad weather.

Handouts

There is a wealth of information that can be put into printed form and used as teaching aids or informational handout to the students. Cost and what you think is appropriate will govern the decision on which materials you hand out.

- Agenda for the workshop.
- Camera plans.
- Exposure recommendations.
- How to make a pinhole.
- Optimal pinhole sizes.
- Lists of pinhole resources:
 - o Books.
 - o Websites.
 - o Organizations / companies (where to purchase stuff).

An agenda is useful to help you keep the activities track; it is critical for a short workshop.



Pinhole Image Samples

You may want to show students samples of pinhole images. The samples may be your work or slides of other photographers' work. They could be examples of the many image characteristics that make pinhole photography a unique joy.

- Infinite depth of field.
- Soft but even focus.
- Time and movement.
- Zone plate (softness).
- Multiple-pinhole images.
- Slit photography (double-slit; single-slit).
- Wrong sized pinhole.
- Close-up.
- Anamorphic images.
- Curved or twisted film plane.
- Vignetting.
- Extreme wide-angle.
- Extreme tele-photo.
- Long exposures (hours, days, weeks, etc.).

Why Pinhole?

There can be a lecture or lively discussion on this topic alone, especially if some one in the group has experimented or worked with pinhole in the past.

- What good is soft focus?
- What good is infinite depth of field?
- Pinhole slows down the photographer, making them more intimately aware of the surroundings.
- Pinholers utilize intuition heavily, especially knowing when a scene calls for pinhole treatment.
- The camera can be an integral part of the work of art.



Materials

This is a list of things that may be helpful in your workshop:

- Photographic paper.
- Film.
- Film holders? (or Polaroid back?).
- Rubber bands.
- Chemicals.
- Developing trays.
- Developing tanks.
- Tongs.
- Chemical bottles.
- Electrician's tape.
- Masking tape.
- Duct tape.
- Glue.
- Paint (flat black).
- Mat board.
- Foam core.
- Knife.
- Print frames or glass for contact printing.
- Drill (to make larger hole around where the pinhole will be mounted).
- Pinhole materials:
 - o Shim stock, aluminum cookie sheet, etc.
 - o Needles.
 - o Holder for needle (pencil eraser, clothespin-style holder, etc.).
 - o Ultra-fine sandpaper (600 grit).
 - o Stiff cardboard (the back of pads of writing paper).
- Light meter.
- Loupe (for checking pinholes and negatives).
- Safe light.
- Light tight materials to cover windows.



Film Choices (pros and cons)

Film Format	Pros	Cons
35mm	<ul style="list-style-type: none">- Readily available- Inexpensive- 1-hour processing- Easy with body caps- Multiple exposures per roll- Inexpensive	<ul style="list-style-type: none">- Not using a self-made camera- Enlarges poorly
126 cartridges	<ul style="list-style-type: none">- Easy to make a camera out of mat board	<ul style="list-style-type: none">- Difficult to find- Enlarges poorly- Only available in color
120	<ul style="list-style-type: none">- Inexpensive- Can enlarge well- Kits available (Besseler, etc.)	<ul style="list-style-type: none">- Could take a long time to make a 120 camera from scratch; even kits can take a couple of hours.
4x5	<ul style="list-style-type: none">- Enlarges well.- Easy to make a home-made camera for this format.	<ul style="list-style-type: none">- Expensive- Tricky processing
Paper negatives	<ul style="list-style-type: none">- Inexpensive- Easy to develop- Easy to contact print- Works well in cylinder cameras	<ul style="list-style-type: none">- Difficult to enlarge
Transparencies	<ul style="list-style-type: none">- No printing required	<ul style="list-style-type: none">- Sensitive to color shifts- Difficult to process outside of a lab
Infrared	<ul style="list-style-type: none">- Beautiful, haunting images	<ul style="list-style-type: none">- Extremely light sensitive
Polaroid	<ul style="list-style-type: none">- Immediate results	<ul style="list-style-type: none">- Need either a converted Polaroid camera or a Polaroid back.- Expensive



Resources

The resource page of the Pinhole Day is one of the best pinhole information lists on the Internet. Its topics cover all major areas of pinhole photography, including exposure calculation, pinhole constructing and measuring, zone plates and how to build many types of cameras. All links are exceptionally high quality. <http://www.pinholeday.org/support/>

A selection from this page and a couple of other sites:

Stewart Woodruff's Oatmeal Box Camera Building Instructions:
<http://www.nh.ultranet.com/%7Estewoody/makecam2.htm>

Zernike Au's Oatmeal Box Camera Instructions:
<http://www.zeroimage.com/freeproject/oatmeal/oatmealcan.html>

Chris Patton's Pinhole Instruction Site (great for workshop teachers)
<http://www.stanford.edu/%7Ecpatton/pinhole.html>

Eric Nelson's Pinhole Camera Instructions
<http://www.marshfield.k12.wi.us/art/cameramake.html>

Two important websites:

www.pinhole.com

Pinhole Diary; discussion group; newsletter; gallery; links

www.pinholerresource.com

Pinhole Resource (Eric Renner and Nancy Spencer, co-directors): Pinhole Journal; books; supplies; cameras; gallery; workshops



What to cover in the workshop

This is an outline that the author uses when giving introductory or overview talks to college students and other interested groups. This could be used as a handout. It can serve as a starting point for a workshop agenda.

1) What is it? (introduction)

- a) Photography using a tiny hole as an aperture rather than a lens

2) Why pinhole? (what makes it unique, what can it do easier/better than lens photography)

- a) Image characteristics:
 - i) Infinite depth of field; everything in equal, soft focus
 - ii) Capture time.
 - iii) Distort the image.
- b) Personal preferences:
 - i) Do it yourself
 - ii) Camera as art.
 - iii) Low Cost.

3) Practical Pinhole

- a) Start with a light-tight box... Common camera materials:
 - i) Oatmeal box
 - ii) Cookie tin; Republic of Tea tin
 - iii) Sheet film box (100 sheets of 4x5)
 - iv) Cigar box; mat board box
 - v) Cartridge camera
 - vi) Convert an old camera – Box camera; Polaroid; folding camera
 - vii) Purchased – Leonardo; Santa Barbara; Besseler; Zero 2000; Finney
 - viii) Body caps for standard cameras.
- b) Focal Length:
 - i) Distance between the pinhole and the film
 - ii) Determines wide-angle, normal or telephoto
- c) Pinhole Materials:
 - i) Aluminum disposable cookie sheet
 - ii) Brass shim stock
- d) Pinhole size:
 - i) Mathematical formula
 - ii) Charts: Optimal diameter; needle size
 - iii) Close is OK: some people measure all pinholes; some never do
- e) Shutters:



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- i) Black electrical tape
 - ii) Slides
 - iii) Lens caps
 - iv) Shutter on or from an old camera
 - f) Aiming: X principle
 - i) Draw sight lines on camera
 - ii) Or, use imaginary ones
 - iii) Visualize how the image will look on a curved plane
 - g) Exposure – Tom’s Method
 - i) Determine BDE for each camera/film combination
 - ii) I.e., 15” at EV16 at ISO 100
 - iii) Adjust as necessary according to light meter EV reading, or use rules of thumb: double exposure times for each stop as needed

Rules of thumb:

Light Condition	Adjustment
Bright, sunny day	No adjustment
Haze in sky	Add 1 stop (2 times as long)
Slight overcast (you can see the outline of the sun)	Add 2 stops (4 times as long)
Heavy overcast	Add 3 stops (8 times as long)
Early morning; late afternoon	Add 1 more stop to above (double the exposure again)

4) Lensless alternatives:

- a) Zone Plate - soft, faster
- b) Slit Photography – way distorted, faster

5) Last Step in Building a Camera / Pinhole Making Demo

- a) Spray paint with ultra flat black
- b) Light trap: build in or use black tape.
- c) Film holder (or just stick paper in a cylinder)
- d) Pinhole:
 - i) Place 1” square of metal on stiff cardboard, like the back of a paper pad.
 - ii) Use tape or a pencil with eraser to hold the needle (prevents stabbing you finger).
 - iii) Spin the metal to drill with the needle (rather than spinning the needle).
 - iv) Sand off burrs.
 - v) Tape in place.



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- e) Use black tape for a shutter.
 - f) HAVE FUN!

6) Pinhole miscellany:

- a) Worldwide Pinhole Photography Day is April 28, 2002 (always last Sun. in Apr.)
- b) Don't have the sun shining on the pinhole during an exposure
- c) A pinhole casts a 125° cone of light onto a flat film plane
- d) The ratio of focal length to cone of light is 1:3.5. (A 2 inch focal length casts a 7 inch cone of light.)
- e) Darken pinholes for more contrast (I haven't; but some people do).
- f) You can dodge the image outside of the camera (Helpful if image is wide angle with significant light drop-off around the edges).
- g) Use Ilford paper for negs: no marks on back; use mat surface single weight if you can find it.
- h) Camera obscura – room size pinhole camera.
- i) Be careful using filters; the dust on them is in focus, too.

7) Resources:

- a) Books:
 - i) Pinhole Photography, Rediscovering a Historic Technique, 2nd. Ed.; Eric Renner; Focal Press
 - ii) The Beginner's Guide to Pinhole Photography; Jim Shull; Amherst Media
- b) Web Sites, start at:
 - i) www.pinhole.com - Discussion group; newsletter; gallery; links
 - ii) www.pinholeresource.com - Pinhole Resource; Pinhole Journal; books; supplies; cameras; gallery
 - iii) www.pinholeday.org - official Pinhole Day site



This document is a living work originally compiled as part of the organizing efforts for World Wide Pinhole Day 2002. If you have suggestions for improvement, please send an email to events.coordinator@pinholeday.org.

Last update: January 29, 2002

Author:

Tom Miller

Many suggestions and help from:

Diana Bloomfield

Guy Glorieux

Ed Levinson

Zemike Au

Gregg Kemp

Eric Nelson

