

S T U D E N T ' S L A B M A N U A L

S t e v e n B e r k o w i t z

Tyler School of Art
Department of
Art & Art
Education
S C A T
Photo
Lab

This is the delineation of the contract between the Photo Lab, the Lab Monitors and the Students. Read these pages so you know exactly what is expected of you.

This book is designed to explain in detail how you should care for the Lab. It is hoped that you will treat the lab and its contents as if they were your own personal property. There has been a lot of personal energy invested in making this lab a great place to work. It is a major part of your job to foster an environment that inspires people.

©2004 Steven Berkowitz

All or parts of this material may be used by other instructors under two conditions:
The name of author and copyright notice remain on the pages.
The author is notified of its use.

SCAT PHOTO LAB – STANDARD OPERATING PROCEDURE

BASIC OPERATING PROCEDURE

When students enter the Lab they should follow this procedure:

go directly _____ to the Lab Monitor
say hello _____ and tell the Monitor what class you are in, and who the Teacher is
present _____ your ID Card
the Monitor will check your name against an Authorized Users list
ask for _____ the equipment that is appropriate for what you want to do
developing, printing, or toning
the Monitor will procure the necessary equipment
students should not go into the drawers
sign in _____ on the Equipment Signout Sheet
include the numbers of any special pieces of equipment
write down the Drawer number if developing film
go to work _____

When finished working, please follow this procedure:

return _____ all equipment to the Lab Monitor
let them check all items and return them to the appropriate storage area
do not do them a favor by putting things away
return _____ the Multigrade Filter Sets with the lid open
sign out _____ on the Equipment Signout Sheet
clean up _____ some area of the Lab
ask the Monitor what needs to be done
check the «*Cleanup Procedure*» sign for things to do

GENERAL RULES

NO SMOKING _____ in the building at any time!
NO FOOD _____ in the Lab or Darkroom at any time!
clean up _____ even if you didn't make the mess!!
stow _____ personal gear **under** the tables
keep _____ table tops clear for work space
don't ever leave _____ any equipment back in the Darkroom
find all the pieces _____ if something breaks, chances are it can be repaired
no storage _____ is available for students in the Lab, unfortunately

equipment must be _____ signed out by a Lab Monitor
students should not take things out or put things back
if someone takes over someone else's equipment, sign it over with the Monitor
chemistry set up _____ is done by the Monitor
chemistry breakdown _____ is done by students, but only with Monitors permission
(so they can count the amount of chemistry used before it is dumped)
last four students _____ working at the end of the night are responsible for cleaning up
see «*Cleanup Procedure*» posted in the Darkroom
let Lab Monitor know _____ when chemicals in 5 gallon vats are getting low

SPECIFIC OPERATING PROCEDURES

DEVELOPING

- develop film _____ over the tray provided in the Developing Drawer, so you do not drip over the counter or table
- wipe down _____ the counter top *immediately* if anything drips or when even gets wet. Chemistry is invisible when wet but it dries to a crusty powder that can be inhaled when it becomes airborne. This is extremely toxic and must be avoided.
- rinse all beakers _____ before and after each use, **invert** to dry
- put the tops back _____ on any chemicals you use from bottles
- stand on a chair _____ when squeegeeing the film so excess liquid drains into the sink
- return _____ all Developing Equipment to the Monitor **clean and dry**
- turn _____ the Film Dryer off when opening the door
- make _____ sure the Heater is turned on when using the Film Dryer
- keep _____ extra film clips on the bottom of the Film Dryer
- turn _____ off Light Table when not in use
- throw away _____ any film scraps on the light tables immediately when cutting film

PRINTING

- adjust _____ the enlarger head to the topmost position
- safelights _____ do not need to be all the way closed. The color of the light is safe. The wings of the safelights can be open to 10 and 2 o'clock.
- always start _____ with a contrast filter, usually a grade 2 filter for normal contrast
- never open _____ the negative slot with the light on
You may fog someone else's paper.
- recycle trays _____ back into the Darkroom, try to keep the floor dry
- don't ever leave _____ any equipment back in the Darkroom
- return _____ the Multigrade Filter Sets with the lid open
- find all the pieces _____ if something breaks, chances are it can be repaired

when finished at the end of the night:

- Close _____ the mouths of the enlarger, and filter tray if necessary
- Adjust _____ the condenser heads to the topmost position
- Cover _____ the enlargers with the dust covers
- Switch off _____ the safelights next to the enlarger

TONING

- have enough prints _____ for the amount of chemistry used. A minimum of a dozen prints is recommended. The capacity of a tray of toner is about 50 prints.
- tone with someone _____ else if possible to maximize chemical use
Do not waste chemistry – you are paying for it
- have the Lab Monitor _____ mix the chemistry for you
- do not throw away _____ any chemicals until the end of the night

LAB MONITOR and STUDENT RESPONSIBILITIES

The Photo Lab Monitors have been sent here by the grace of God. They are what makes it possible for photography to be effectively taught here in the Department of Art & Art Education. The Monitors have certain responsibilities to the students, and the students have certain responsibilities to the Lab Monitors.

The people who work as Monitors have had numerous classes in photography and many have exhibited work. Most of all they are people whose aesthetic opinions we trust.

Basically, the Monitors are here to -

OPEN THE LAB according to the schedule posted on the Office door.

- Monitors volunteer to supervise the Lab for a specific length of time every week.
- Monitors are responsible for notifying students if they cannot cover their time slot, and if they cannot find another Monitor to cover for them
- Inevitably an unforeseen disaster will prevent a Monitor from working sometime during the semester. If they cannot find anyone to cover for them, they can call the Post Production Studio, next door in Room 19, at 204-8483 and ask that a message be posted on the Photo Lab door. If this happens, please be forgiving. (Sometimes the messages do not make it all the way down the hall.) note: the Post-Production Studio may not be open during the weekend hours.

SIGN-IN STUDENTS

- Monitors will check the student's names against an 'Authorized Users List' to make sure they are enrolled in an Art class this current semester. JPRA students are not supposed to be working during Art hours and vice-versa.
- Students will then hand in their ID card in return for equipment.
- The numbers of all equipment must be written down on the Equipment Signout Sheet.
- The ID card will be returned when the student returns all equipment clean, dry and unbroken.

HAND OUT EQUIPMENT and/or chemicals for printing, developing or toning.

- Monitors are responsible for dispensing and receiving equipment, etc. This is not a self-service joint. Students should not do anyone any favors by taking things out or putting things away themselves. The Monitors are responsible for equipment management.

ASSIST STUDENTS with developing, printing, toning, etc.

- Monitors are not teachers but they should assist students. Monitors have been taught not to give direct answers, but to respond to questions with other questions to guide you in learning how to do this for yourself.
- They are not here to show you how to do everything. You are responsible for LEARNING. Do not saturate them with too many questions.
- There are a great many details in photography. Too many, in fact, to be comprehensively covered, let alone be completely absorbed in a couple of demos. So do ask questions, even stupid ones at first. In the long run you are encouraged to be inventive, and to share any discoveries with your classmates. We are all trying to help each other learn as much as possible.
- Off-Duty Monitors are quite often doing their own work outside of their own shift time. They should serve as inspiration. They should not give you a "leave me alone, I'm too busy working" attitude, however, you should respect their personal work space and work time. It is a matter of mutual respect.

RESPONSIBILITIES, cont'd

MIX NEW CHEMISTRY when needed. (Students should *NEVER* mix chemistry!)

- Raw chemistry should never be left out in the lab. It should always be stored in a cabinet.
- Careful records are kept on the amounts of chemicals used. If things are not kept organized the whole lab goes to hell.
- Checking the printing chemicals in use in the Darkroom should be done by the students and if they need to be replaced, the students should do so with Monitor supervision. The instructor will show how this is done, and dilutions are written on each individual vat.

OVERSEE the maintenance of the lab.

- It is the responsibility of the students to keep the lab clean.
This means rinsing the beakers BEFORE and AFTER each use and invert them to dry. (If you come into the lab and see beakers dry and upright, rinse them and invert them.)
This also means washing down the sinks after developing film.
This means drying your developing tank and reels before returning them.
This means not only not leaving trash lying around the lab, but also, picking up anyone else's trash that may have been overlooked.
- If someone is doing something incorrectly, the Monitor is correct in pointing this out.
This situation may arise only because the instructor was not clear in his demonstration or because the student did not absorb every detail of the demo.

FIX EQUIPMENT, change bulbs, or report faulty items to the instructor to be dealt with.

- If something breaks, tell someone, and find all the pieces! Chances are it can be fixed.
- If something is not working, let's get it fixed as quickly as possible.
(We've seen enlargers sit for days because no one told anyone the bulb was out.)

SIGN STUDENTS OUT

- All equipment should be returned to the Lab Monitor when finished working.
- The Monitor will check the condition of all equipment. It should be clean, dry and unbroken.
- The Monitor will cross off the student's name from the Equipment Signout Sheet.
- The student's ID card will then be returned.
- The student should then clean something before they leave, under Monitor supervision.

CLOSE AND SECURE THE LAB at the end of each day.

- The building officially closes at 11 P. M., and we are required to vacate the premises by that time.
- When the Monitor tells you to finish working and start cleaning up, please do so promptly.
(Usual clean up time is called at 20 after, lights go on in the lab at half past.)
- Do not hang around the lab waiting for your prints to dry. If you really want to take them home tonight, finish printing a little earlier.
- The last four people working, not the Monitor, are responsible for cleaning up.
see «*Cleanup Procedure*», posted in the Darkroom.

PROVIDE GUIDANCE to students trying to mat their photographs.

- This does not mean they should cut your mats for you. (Let alone rent their services out.)
- Students are expected to LEARN how to mat photographs. If someone holds your hand the entire way, you will not learn very much, except maybe how to be dependent.

If anyone has a problem with a Monitor, please talk to the instructor. Lord knows the monitors complain about students sometimes!

SCAT PHOTO LAB - CLEANUP PROCEDURE

The last three or four people working, *not the Monitor*, are responsible for cleaning up. The Lab Monitor is, however responsible for selecting and supervising the cleanup crew.

DARKROOM SINK

Dump _____ chemical trays down the drain, starting with the developer
Rinse _____ all the trays and invert them to dry
store them under the sink at the very end of the cleanup
Rinse _____ all the tongs and store them in a beaker
Wash down _____ the sink using softscrub and a scouring pad

ENLARGERS

Close _____ the mouths of all the enlargers, and filter trays if necessary
Adjust _____ the condenser heads to the topmost position
Cover _____ the enlargers with the dust covers
Switch off _____ all safelights next to the enlargers
Return _____ any filters, carriers, easels, etc., to the Lab Drawers
write down who, if anyone, signed them out without returning them

TRAYS

Return _____ all the small transport trays to the Darkroom
Straighten _____ up all the other trays in both the Darkroom and the Film Lab

FLOORS

Mop _____ the floor areas in front of all sinks
Sweep _____ all floors, especially under tables and in the Film Loading rooms

DEVELOPING SINK

Wash down _____ the sinks, counters, and tables using a sponge and spray cleaner
Rinse _____ all beakers and invert them to dry, and line them up neatly
Fill _____ the Stop Water vat back to the 5 gallon level
Return _____ any tanks, thermometers, beakers, etc., to the Lab Drawers
write down who, if anyone, signed them out without returning them

WASHING SINK

Wash down _____ the sinks and counters using a sponge
Rinse out _____ any toning trays

FILM LAB

Wipe down _____ the table tops with spray cleaner
Open _____ **every** Lab Drawer and check the contents
locate and return any stray carriers, easels, or filter sets to their proper locations
write down who, if anyone, signed them out without returning them
Inspect _____ all adjustable easels in their rack, adjust stay springs if necessary
Count _____ the filed carriers in the B1 Drawer and straighten their placement
Throw away _____ anything and everything that shouldn't be lying around the lab
including test strips and any unclaimed prints, let alone newspapers!
Straighten up _____ the tables and chairs
Put _____ all 4 trash cans in the hallway for pickup

LIGHTS

Turn off _____ all lights
the key switch near the pass-thru in the Darkroom is for the white lights
the switch in the back near the clock is for the ceiling safelights
the master light switch is in the hallway

LOCKS

check _____ all doors and make sure they are locked

EQUIPMENT HANDLING

Many items in this lab are very expensive, and we have *no* budget for replacing any of it. It is therefore imperative that you take care of things as if they were your own.

ENLARGERS-

Carriage Locks -

- make sure you unlock the carriage before you move the enlarger up or down.
- failure to unlock the carriage will result in stripping the gears, making the enlarger unusable.
- failure to lock the carriage means your image will eventually slip out of focus.

Head Position -

- make sure the head of the enlarger is in the proper position for the negative size you are using.
- adjust the head position to all the way up for 35mm negatives.
- do this every time *before* you start printing.
- failure to do this will give your image a dark haze along the edges.

Negative Mouth -

- never open the mouth of the enlarger with the light on!
- you will ruin your neighbor's paper by doing so.
- close the mouth of the enlarger when you are finished working.
- this will keep the dust out of the interior of the lens chamber.

EASELS-

Adjustable Blades and Handles -

- move the blades carefully, with the easel slightly open.
- the small semi-circular handles can come off easily.
- they are held in place by flat silver metal pieces.
- if these come apart find all the pieces and return them to the Monitor and let the staff fix it.

Prop Bars, Springs and Screws -

- the prop bar on the left side holds the easel open.
- the small rivet on the side comes out of its slot easily.
- don't return the easel with the prop bar dangling.
- the screw on the left-hand side comes out easily.
- if the screw is loose, tighten it finger tight.
- the spring works to keep the easel open and makes it close easily.
- if it has broken, please notify the Monitor.

Easel Bases -

- don't draw marks, or put tape on the easel bases!
- if you want to make multiple prints on a single sheet of photo paper, use a separate sheet of paper as a guide, taped to the easel bottom.
- «see: *Multiple Prints* page»
- think about the next person who has to use the easel.

EQUIPMENT HANDLING, cont'd

MULTIGRADE FILTERS

Filter kits must be handled with care. At \$35 a box we can not afford to have these get misplaced or damaged.

CHECK

- Check every box as it is handed out to see that it is complete
- Check every box when it is returned to see that it is still complete
- Check every enlarger at the end of the night
 - Double check that no filters have been forgotten.
 - If they have, go back into the Darkroom and find the missing filters

IF LOST or BROKEN

- If a filter kit is incomplete,
 - find out at which enlarger station they were last used
- If a filter has come apart, give it to the Lab Monitor
 - They will leave it in the Lab Tech's drawer with a note to be repaired
- If a filter kit has a damaged filter, give it to the Lab Monitor
 - Again, they will leave it in the Lab Tech's drawer with a note for repair

NEVER

- Never check out an incomplete filter kit
- Never put incomplete filter kits back into a drawer
- Never just leave stray filters on the table
 - Find out where they came from, and replace them
 - This may mean taking every filter kit out of the drawers and inspecting then all to see which one is missing a filter
 - Do this with the assistance of the Lab Monitor

GRAIN MAGNIFIERS

don't over-tighten the screw on the side of the magnifier
these screws strip easily
it is impossible to focus your prints with the top piece of the
magnifier all the way down!
the line across the middle should be in focus for your eye
this happens when the top piece protrudes about 1/8th of an inch

CHEMISTRY SETUP

Lab Monitors are responsible for mixing all chemicals, and dispensing all chemicals into trays for the students to use. No students should be taking chemicals out of the vats! All Monitors, especially those from previous semesters - please take note of the changes in the way we are mixing Non-Hard Fixer and Stop from the Raw chemistry. There are new Chemical Recipe sheets in the Lab and on the Web Site, and there are new Chemical Mixing Charts on the wall above the Art chemical vats.

Typically, the chemistry in vats is called **Stock Solutions**, made from **Raw Chemical Concentrate** that comes in bottles or cubes from the manufacturer. The Stock Solutions are then diluted further to become **Working Solutions** that are poured into trays in the darkroom or trays and developing tanks in the Film Lab.

PRINTING CHEMICALS (Darkroom Sink)

Typically there will be two sets of chemicals set up in the Darkroom sink – one for RC prints and another for fiber prints. The Stop Bath and Wash tray are shared by all. The RC chemicals are on the left, and consist of Dektol Developer, Sprint Stop Bath, New Fixer (with hardener). The Fiber chemicals are usually Platinum II, the same Sprint Stop Bath, and Non-Hardening Fixer.

FINISHING CHEMICALS (Finishing & Toning Sink)

Finishing Chemicals consist of PermaWash trays and Water Wash trays. There may also be toner trays set up, depending on the needs of the students on any given night. Monitors should distribute all chemicals into trays in the Finishing & Toning sink. Do not dump these chemicals prematurely! One setup should last an entire evening.

MAKING WORKING SOLUTIONS

The recipes for making Working Solutions of chemicals from the Stock Solutions in the vats are on the wall above the vats near the Finishing Sink.

For the Darkroom		a typical 14 x 17" tray holds 60 oz. of chemistry
Dektol	used at 1:2	add 20 oz. from the Dektol vat to 40 oz. of water
Platinum II	used at 1:9	add 6 oz. from the Platinum II bottle to 54 oz. of water
Stop	used at 1:9	add 6 oz. from the Sprint Block Stop vat to 54 oz. of water
New Fixer	used at 1:1	add 30 oz. from either New Fixer I or II vat in the Film Developing sink to 30 oz. of water
Non-Hard Fix	used at 1:1	add 30 oz. from the Non-Hard Fix vat to 30 oz. of water
Wash	just water	running constantly from the spigot
For the Finishing & Toning Sink		a typical tray holds 32 oz. of chemistry
Non-Hard Fix	used at 1:1	add 30 oz. from the Non-Hard Fix vat to 30 oz. of water
Perma-Wash	used straight	from the Perma-Wash
Wash	just water	running constantly into a Wash Tray
Sepia Toner	one-shot	mix Bleach and Sepia Toner directly from the packets
Selenium	used straight	from the Selenium vat