

Beginning Photography 207

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BLOCK 7 / Course Objectives

This is a beginning level photography class devoted to teaching the basic techniques of B/W photography. You will be expected to understand and practice the basic technical concepts covered in our textbook including depth of field, time manipulation of the image, burning and dodging, using filters, etc. Photography will be discussed and explored primarily within an artistic context. You will be introduced to many photographers and their works. Your photographs should improve technically and conceptually. There is a great deal of technical knowledge needed in addition to learning basic formal 2D composition. Your mission will be to learn how to speak visually (without words) using a camera.

This class will provide students the time and facilities necessary to focus on learning the basics of analog B/W photography. Students will learn how to analyze photographs and create a body of work. Pushing yourself creatively is essential. In-class discussions, critiques and slide shows will stimulate and inspire your work. Historic and contemporary ideas about photography as a medium are examined in readings, videos, lectures and critiques.

Course Objectives

- Understand and demonstrate the basic technical concepts of the camera which are covered in our textbook including depth of field, time manipulation of the image, ISO, film exposure. (Knowledge, Communication, Reasoning)
- Solve compositional as well as aesthetic problems when creating a photograph in the camera. (Knowledge, Inquiry, Communication)
- Produce well-crafted, beautiful photographs in the darkroom. (Knowledge, Communication, Reasoning)
- Understand and demonstrate a knowledge of basic 2D composition. (Knowledge, Communication, Reasoning)
- Research and present on a selected artist, including pertinent historical research as well as showing visual connections among the works of all of the artists covered. (Inquiry, Communication, Intercultural Literacy)
- Gain a personal understanding of why artists make work. (Inquiry, Well-Being)
- Evaluate and analyze photographs— Learn to read visual language. (Knowledge, Inquiry, Communication)
- Gain basic historical knowledge of the history of photography. (Inquiry, Knowledge)
- Consider and integrate various cultural and historical ideas into your work. (Intercultural Literacy, Knowledge, Inquiry)
- Create a cohesive body of work. (Vocation, Communication, Knowledge)
- Discuss and evaluate your photographs as well as your classmates' works during class critiques. (Communication, Reasoning)

Requirements

Attendance and participation in all class discussions, meetings and field trips. *Email me in advance if you are going to miss a class because of illness and explain how you will handle missed class work.* **Be on time.** *If you are consistently late, it will affect your final grade.* **No screens in class. Take notes using paper. Turn off phones.** If you become ill and must miss three or more days because of illness, *the class should be dropped.*

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BRING YOUR BOOK TO CLASS - Use pen and paper to make notes.

Grading: If your work is finished on time (and if it is satisfactorily completed), attend class and participate, you are ensured a C. A's and B's are reserved for students who excel beyond average and competent work. I do not grade individual works with letter grades. If you are concerned with your grade at any time, please talk to me. You will learn by doing. Your work will improve if you practice, it is like everything else in life. Ideas, creativity, experimentation & understanding your craft make for good art. A camera is a machine and you must learn how to use it.

Projects

There will be 3-4 Projects due during the block. Artist presentations will be required (see syllabus). Exams over technical and conceptual understanding of photography is a possibility.

Black & White Photography, A Basic Manual, 3rd Ed. (required) by Henry Horenstein
Darkroom Fee: \$45. Chemicals and some materials will be provided. Equipment is rented and included in lab fee. If you lose equipment, the cost to replace it will be charged to your student bill. Students must buy their own paper and film. *Supply List is on Moodle.*

Grading

- A** Show personal insight in your projects, *extra thought, effort and creativity.*
Mastering of camera and darkroom techniques. 90-100%.
Printed/presented extremely well. *NO absences unless ill and excused.*
- B** Do above average work. 0-2 absences. 80-90%.
- C** **Complete all the requirements, but not exceed them.**
Print quality not up-to-par. 0-3 absences. 70-80%.
- D** Failure to complete requirements. 0-4 absences. 60-70%.
- F** Failure to complete requirements. 0-5 absences. Below 60%.

PROJECTS 55%

There should be steady improvement in both your technical expertise and your artistic vision. Shoot, shoot, shoot. Print! PRINT A LOT. Experiment! Spend time STUDYING photographs. I am adamant about checking out books from the library.

John Szarkowski's book entitled *The Photographer's Eye* (1966) is "an investigation of what photographs look like, and why they look that way." Looking at photographs and asking yourself questions about WHY a photograph LOOKS the way it does is something you can do outside of class in addition to shooting. This practice will teach you multitudes about 2D composition as well as learning to see LIGHT.

PRESENTATIONS: 20% The presentation you give in class is extremely important. I expect a lot of time and research on this assignment. Present your artist in a professional manner and keep it tight. Books are extremely important. Use the library. I am adamant you include books from the bibliographies on Moodle. Artists are included in many collections. You are required to find information in books beyond monographs.

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EXAM(S): 15% - if there are no exams, I will rely more heavily on the artist presentations and your ability to be part of our class discussions.

DISCUSSIONS AND PARTICIPATION 10%

Your attendance is taken into account. If you are not attending class, you cannot be participating. *I expect you to participate in every class.* Take yourself seriously. If you are truly ill, please talk to me. There may also be written responses in class.... Be prepared! Be prepared to drop for health reasons if you are ill and miss three or more classes.

Course Expectations:

1. Learn how to use the 35mm manual Camera
2. Shoot and Develop 35mm B/W Film
3. Learn how to make high quality RC prints in darkroom
4. Experiment with subject matter, lighting, blur, vantage point and composition (using the frame)
5. Obtain a basic understanding of using this camera to make art
6. Obtain a basic understanding of what photography is, how it is used in our culture, as well a medium to make art. This includes modernist, post-modernist, conceptual and contemporary photography.
7. Obtain an understanding of numerous artists in the past and the present using photography to make art.
8. Work passionately and obsessively as an artist - Content, Technique, Creativity are all KEY
9. **Research is especially important. Learning how to research artists is a course expectation.**
10. Obtain an understanding of why artists make work. *What is the artist's intention?*

Cornell College expects all members of the Cornell community to act with academic integrity. An important aspect of academic integrity is respecting the work of others. A student is expected to explicitly acknowledge ideas, claims, observations, or data of others, unless generally known. When a piece of work is submitted for credit, a student is asserting that the submission is her or his work unless there is a citation of a specific source. If there is no appropriate acknowledgement of sources, whether intended or not, this may constitute a violation of the College's requirement for honesty in academic work and may be treated as a case of academic dishonesty. The procedures regarding how the College deals with cases of academic dishonesty appear in The Compass, our student handbook, under the heading "Academic Policies – Honesty in Academic Work."

Students who need accommodations for learning disabilities must provide documentation from a professional qualified to diagnose learning disabilities. For more information see cornellcollege.edu/disabilities/documentation/index.shtml

Students requesting services may schedule a meeting with the disabilities services coordinator as early as possible to discuss their needs and develop an individualized accommodation plan. Ideally, this meeting would take place well before the start of classes.

At the beginning of each course, the student must notify the instructor within the first three days of the term of any accommodations needed for the duration of the course.

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“The camera is an instrument that teaches people how to see without a camera.” Dorothea Lange

WEEK 1 Learning to See Like a Camera

Week 1 is devoted to learning how to use the camera, developing film, contacting negs and researching *many* artists including Alfred Stieglitz and John Szarkowski.

Become familiar with artists who use cameras to make art.

MON 1 9-11 Introduction [Quick History of Photography](#) - youtube
 1-3 View History of Photography (Introduction to Photography and Visual Literacy on Films on Demand)
 [Pictorialist and Straight Photography: Stieglitz \(youtube\)](#)
 [Pictorialism in America](#) — MET (read for class Tuesday)

- *Why was photography NOT included as a medium of fine art? Be able to articulate why. Quiz in class tomorrow. Read, listen to links on syllabus as well as Moodle.*
- Key terms to understand this block: Photo-Secession, Pictorialism, Straight Photography, f/64 Group, the New Vision (Experimental photography of the 1920s in Europe, Surrealism, the New Objectivity, Post-Modern Photography and Conceptual photography. **Where does the artist you will present on fit in and why? Who were they influenced by?** [A-Z of Modernist Photography](#) — TATE

WHO IS ALFRED STIEGLITZ? *It is important to understand how important his influence was. “Born in Hoboken, New Jersey, in 1864, and schooled as an engineer in Germany, Alfred Stieglitz returned to New York in 1890 determined to prove that photography was a medium as capable of artistic expression as painting or sculpture.”*
http://www.metmuseum.org/toah/hd/stgp/hd_stgp.htm

Artist Presentations: Your artist must be chosen by WED Week 1. Please note there is an Artist Presentation guideline in your syllabus and a hand-out. Include Alfred Stieglitz.

Read pps. 3-67 in book. Study glossary terms in syllabus. I will hand out a list of questions to answer in hard-copy. Bring papers to class tomorrow. Hand in.

TUES 1	12:30	Go over cameras and technical info covered in text. Go over answers to questions. View slides and discuss Project #1, composition Depth of Field, Aperture, Shutter Speed
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Read chap. 6, 8 and 9. Choose your artist for presentation.

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WED 1 12:30 **Have Artist Chosen for Presentation**
Film Exposure, Lighting, *Light Meters*
How to load your film into the camera
<https://www.youtube.com/watch?v=IP5rBpxfhJI>
Load film, check ISO, and begin Project #1 (one roll at a time)
How to Develop Your Film - DEMO

See Project #1. Partner with someone in class. *HP5+ 400 ISO film. Use outdoor light. Pay attention to your light meter. Focus. Use the FRAME. Pay attention to your background. When this roll of film is successfully shot & developed, you may continue to work on Project #1. Total of 3 successful rolls. Develop 1st roll of film w/partner. Have first roll shot and developed by Thursday. Put negs in negative preservers.*

Check List: Load Film correctly. Set ISO. Remember to Focus and Advance Film. When you REWIND your film, *PRESS the REWIND button before attempting* (page 8 in text.)

- **For Thursday - Read Chapters 9 & 10.** Know the parts of the enlargers, the chemicals, their function. Know what an easel, grain focuser, etc, is.
- **READ Film Development + Darkroom Use in Syllabus.**

Bring in your negs in negative preservers tomorrow afternoon. Bring photo paper.

THUR 1 12:30-3 **Darkroom Intro & DEMO + Camera Help**
How to make a CONTACT SHEET
Bring your negatives and your photo paper to class
Have your artist chosen for presentation

On Friday: Lab Groups

FRI 1 **10-Noon** **Lab Group A:** Bring contact sheets, negs & photo paper
 1-3 **Lab Group B:** Bring contact sheets, negs & photo paper

Work on Project #1. Have a total of 3 rolls shot, developed and contacted by next lab. Next week at Printing Labs: bring all developed & contacted film for project #1.
Week 2 is devoted to learning to print + working on Projects #1 and #2.

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WEEK TWO: What Does a Photograph Look Like and Why Does it Look This Way?

Work Diligently to make good negs & beautiful prints - work on Projects

Read: [*The Photographer's Eye*](#) by J. Szarkowski (see Moodle)

Re-Read Chapter 10 on Printing + Handout in syllabus before your LABS.

It is critical that you practice printing!

LABS - Have 3 contact sheets ready to print from. Hang finished 2 - 8x10 prints.

MON 2	<u>10-Noon</u>	Lab Group A - Printing: Bring Negs, 3 contacts & paper
	<u>1-3</u>	Lab Group B - Printing: Bring Negs, 3 contacts & paper

TUES 2	12:30-3	DUE: 2 VERY GOOD PRINTS from Project #1 (hang) Intro to Project #2: View slides & Staged Photography Individual Meetings with you to discuss your prints Print another 8x10 from contacts. Due Wednesday. Begin shooting Project #2
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WED 2	12:30-3	New 8x10 print is due - have it hung up by Noon Today Exercise: What does the photograph look like and why does it look this way?
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THURS 2	12:30-3	Hard copy (5 pages) of artist presentation paper DUE Discuss Reading: J. Szarkowski, <i>The Photographer's Eye</i> <u>John Hilliard - Contacts</u>
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FRI 2	12:30-3	Artist Presentations Begin
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WEEK THREE: Photographers Who Make Art using Cameras

It is critical to practice making prints — strive for good print density. If your negatives are good density your prints will be easy to print. Note: This week you will be working on two projects.

MON 3		DUE: 2 contact sheets for Project #2 /Using blade easel
	10-Noon	Lab Group A: work in darkroom & meet with me
	1-3	Lab Group B: work in darkroom & meet with me

TUES 3	12:30-3	<i>Artist Presentations & Discuss Project 3</i>
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WED 3	12:30-3	Critique Project #2 - (Hang work by NOON) Discuss Project #3 - FINAL: Letters From the People
THURS 3	12:30-3	Artist Presentations
FRI 3	10-? 1-3	EXAM TBA, Individual Meetings?

FINAL WEEK...

“I believe in the imagination. What I cannot see is infinitely more important than what I can see.” Duane Michals

MON 4	————	TBA
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TUES 4	12:30-3	Critique Project 3: Letters From the People Clean darkroom & classroom Return all equipment! <i>DO NOT MISS or your grade will drop one grade level</i>
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WED 4		NO CLASS
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“You know exactly how I feel about photography. I would like to see it make people despise painting until something else will make photography unbearable.” Marcel Duchamp—Letter to Alfred Stieglitz, New York, 22, May 1922

“To me, photography is an art of observation. It's about finding something interesting in an ordinary place... I've found it has little to do with the things you see and everything to do with the way you see them.” Elliot Erwitt

“It's all about light. Be conscious of the quality of light at all times.”
Barbara Crane

Photo terminology to study and understand:

emulsion	stop bath	density of a negative
SLR (single lens reflex)	depth of field	equivalent exposure
film speed	TLR (twin lens reflex)	pushing film
ISO	wide-angle lens	fog
film base	grain	panning
light meter	normal lens	flat
latent image	fixer	contrast
focal length of lens	RC paper	fast lens
silver halide	developer	density
shutter speed	slow film	reciprocity failure
aperture	fast film	f/stop
exposure	test strip	camera obscura

PROJECT #1 — Light, Shadows, Shapes and Lines



This project is about finding objects, forms, lines, light and shadows. **3 ROLLS Total. 400 ISO.**

We will be emulating specific photographers. Pay attention to how the image LOOKS as a whole. You as a maker of images, must go beyond only noticing the subject matter. Check out books/library.

- Use various **VANTAGE POINTS** for same subject.
- Shoot one roll with main subject matter filling frame.
- Pay close attention to what is in the **FRAME** and what is outside of it. *Look at every part of the frame.*
- Composition is important. It is like grammar is to writing. *(photos by Andre Kertesz)*
- Use *depth of field* to create various interpretations of the same image.
- The very first roll of film will developed with a partner. Use Ilford 400 iso HP5+ film. **Print 3 well-printed 8x10 inch prints.**



See: Micheal Wolf - Paris Tree Shadows <http://thefoxisblack.com/2014/09/10/michael-wolf-photographs-the-shadows-of-trees-in-a-film-noir-style/>

“Photography is about finding out what can happen in the frame. When you put four edges around some facts, you change those facts.” Garry Winogrand

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“Photographs also show the way that the camera sees. It’s not just me or you or anybody else. The camera does something that is different from our own setting.”
– Lee Friedlander

PROJECT #2 —TIME: The Shape of Light

SET ISO on camera and shoot 2 rolls of 100 speed film. (Development time for the film will be different.) **Print 2 - 11x14 prints.** No cropping. Research artists whose photographs involve blur to create surreal photographs. This work must be planned out, however, you will not know what the image will look like until you develop the film. *We are experimenting with using slow shutter speeds. You must use blur in your photographs. Discuss your ideas with me before taking photos.*

Artists to View: Ralph Eugene Meatyard, Francesca Woodman, Victor Cobo (online only), Duane Michels, and more.



PROJECT # 3 FINAL: Letters From the People

This assignment must take you off of the campus and outside. We will use Lee Friedlander’s book for inspiration. Study the images in his book before you shoot. This is an EMULATION assignment. **Shoot 4 rolls of 400 ISO film.** Review bullet points from Project #1. Consider depth of field, frame, detail and vantage point.

Emulate the work “Letters From the People.”

Print 3 well-printed 8x10 prints and 1 - 11x14 print.

No cropping unless absolutely needed.

ARTIST PRESENTATIONS FOR PHOTOGRAPHY 207

Research an artist in depth and present their work. Explain how their work fits into the *history of photographic images*. Show 5 photographs from your artist's works, one at a time (no text other than the title) using powerpoint. Choose *important* images and make sure you use a title and date. Do not crop the images! *Note: with the contemporary artists, select photographs from two or three of their bodies of work. Show several images for each body of work.*

Everyone must research and include Stieglitz in your presentation. Show ONE of his photographs in your presentation and intelligently connect it to your presentation. His work might be the antithesis of your artist's work or very similar in style or idea. Stieglitz was very influential; he played a major role in championing photography as fine art. As critic Andy Grundberg writes "Stieglitz, who was active as an art photographer from the mid-1880's to 1937 (he died in 1946), was a tireless advocate not only of modern photography but also of modern painting".

Do your research primarily in our library. Look at books containing collections of photography - such as histories of photography and collections that are about certain ideas is photography, in addition to any monographs the artist may or may not have. This presentation should *not* go over 15 minutes. The discussion and questions can go on longer. Be prepared to answer questions. *There is an extra hand-out for the Artist Presentation. Be sure to read it and cover all questions asked. See Moodle.*

Bring in the monographs/books of your chosen artist to pass around to the class. On Moodle there are several bibliographies with titles of books in our library.

Early Photography

Eugene Atget

Julia Margaret Cameron

Postmodernism and Conceptual

Cindy Sherman

John Baldesarri

Gillian Wearing

Carrie Mae Weems

New Vision Photography

Laszlo Moholy-Nagy

Alexander Rodchenko

August Sander

Surrealism/Dada

Florence Henri

Brassai

Claude Cahun

Man Ray

Straight Photography (Early Modernism)

Walker Evans

Imogen Cunningham (Pictorialism to Straight)

Berenice Abbott

Gordan Parks

Late Modernism (personal)

Diane Arbus

Lee Friedlander

Robert Frank

Garry Winogrand

Dusseldorf School of Photography

Bernd & Hilla Becher

Conceptual art is primarily about the IDEA and not about self-expression or about beauty and the sublime. It is the IDEA and not the aesthetic that is most important.

Identity in Contemporary Photography

Art Term: Conceptual Photography TATE MODERN

John Baldesarri - Pure Beauty

John Hilliard - Contacts - "Photography Itself"

Synopsis

Conceptual art is a movement that prizes ideas over the formal or visual components of art works. An amalgam of various tendencies rather than a tightly cohesive movement, Conceptualism took myriad forms, such as performances, happenings, and ephemera. From the mid-1960s through the mid-1970s Conceptual artists produced works and writings that completely rejected standard ideas of art. Their chief claim - that the articulation of an artistic idea suffices as a work of art - implied that concerns such as aesthetics, expression, skill and marketability were all irrelevant standards by which art was usually judged. So drastically simplified, it might seem to many people that what passes for Conceptual art is not in fact "art" at all, much as Jackson Pollock's "drip" paintings, or Andy Warhol's Brillo Boxes (1964), seemed to contradict what previously had passed for art. But it is important to understand Conceptual art in a succession of avant-garde movements (Cubism, Dada, Abstract Expressionism, Pop, etc.) that succeeded in self-consciously expanding the boundaries of art. Conceptualists put themselves at the extreme end of this *avant-garde* tradition. In truth, it is irrelevant whether this extremely intellectual kind of art matches one's personal views of what art should be, because the fact remains that Conceptual artists successfully redefine the concept of a work of art to the extent that their efforts are widely accepted as art by collectors, gallerists, and museum curators.

Key Ideas

- Conceptual artists link their work to a tradition of Marcel Duchamp, whose Readymades had rattled the very definition of the work of art. Like Duchamp before them, they abandoned beauty, rarity, and skill as measures of art.
- Conceptual artists recognize that all art is essentially conceptual. In order to emphasize this, many Conceptual artists reduced the material presence of the work to an absolute minimum - a tendency that some have referred to as the "dematerialization" of art.
- Conceptual artists were influenced by the brutal simplicity of Minimalism, but they rejected Minimalism's embrace of the conventions of sculpture and painting as mainstays of artistic production. For Conceptual artists, art need not look like a traditional work of art, or even take any physical form at all.
- The analysis of art that was pursued by many Conceptual artists encouraged them to believe that if the artist began the artwork, the museum or gallery and the audience in

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some way completed it. This category of Conceptual art is known as 'institutional critique,' which can be understood as part of an even greater shift away from emphasizing the object-based work of art to pointedly expressing cultural values of society at large.

- Much Conceptual art is self-conscious or self-referential. Like Duchamp and other modernists, they created art that is about art, and pushed its limits by using minimal materials and even text.

<https://www.tate.org.uk/art/art-terms/c/conceptual-art>

<http://www.theartstory.org/movement-conceptual-art.htm>

This will help you understand how photography shifted from modernist to post-modernist/conceptual.

The aesthetic of "straight" photography, which frowned on significant darkroom manipulation, was deeply entrenched in art photography circles in the early postwar era. By the mid-1960s, however, a new generation of artists had begun to chafe at the constraints of photographic modernism and sought to expand the medium's expressive vocabulary beyond that of the pristine black-and-white print. Many young photographers revived earlier techniques of image manipulation to create works that self-consciously and often humorously highlight the mutability of the photographic image.

At the same time, conceptual artists were taking up the camera to record ephemeral actions and situations, using deadpan humor to undercut photography's claims to documentary authority. Other artists turned their attention to the media-saturated culture of postwar America, exploring the collusion between photographers who alter images and viewers who willingly suspend their disbelief, if only for a moment.

List of Books to View + see bibliographies on Moodle:

[The Last Picture Show: Artists Using Photography, 1960-1982](#)

[Light Years: Conceptual Art and the Photograph, 1964-1977](#)

[Original Copy: Photography of Sculpture, 1839- Today](#)

Photography Fast Forward

[Art and Photography \(Phaidon\)](#)

Conceptual Art, edited by Peter Osborne

How You Look At It: Photographs of the 20th Century - Thomas Weski

[Cruel and Tender: The Real in the 20th Century Photograph](#)

[Moving Pictures: Contemporary Photography and Video from the Guggenheim](#)

[Under the Big Black Sun: California Art 1974-1981](#)

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Faking Death: Canadian Art Photography and the Canadian Imagination
[New California Art Circa 1970; State of Mind](#)

[Various Small Books: Referencing Various Small Books by Ed Ruscha](#)

Click doubleclick : the documentary factor

Auto focus : the self-portrait in contemporary photography /

Acting out : invented melodrama in contemporary photography

Reflections : woman's self-image in contemporary photography ; <photographs by Ellen Carey

[New Topographics / Robert Adams ... Lewis Baltz, Stephen Shore](#)

Art photography now / Susan Bright. (two editions 2011 and 2005)

websites:

<http://www.americansuburbx.com>

<http://intermedianow.blogspot.com>

[Photography & Surrealism - YOUTUBE](#)

[Photography: Beginning #207 - Youtube](#)

[John Szarkowski - Photography - Youtube](#)

[Women Photographers - Youtube](#)

E-Resources: Films on Demand (library)



Claude Calhoun, Studies for a Keepsake, 1925

DARKROOM RULES RULES RULES RULES

KEEP IT CLEAN! Clean Up Your Mess!

Use paper towels to soak up liquids that have spilled. Wash with soap and water the area you have contaminated with chemical spills. Wash your hands - don't rub your eyes!

Thoroughly rinse all processing tanks and utensils, reels, funnels, etc...

Put EVERYTHING AWAY - CLEAN - BEFORE YOU LEAVE

Tongs - **RED** for developer, **YELLOW** for stop bath, **BLUE** for fix.

Keep them out of the other chemicals! Don't use your fingers in place of tongs.

Do not carry wet prints around. Use a tray -- always.

NOTE! Wear an old apron or shirt to stay clean. Chemicals STAIN.

***ILFOSOL-3 *FILM DEVELOPER** - used only for film. Use only once and throw away. Mix it as you need it. *Time and Temperature are very important!!! This varies with the type of film.*
68 degrees is standard temperature for developing.

MIXING CHEMICALS FOR *Working Solutions*

PRINT (paper only) DEVELOPER

Read directions on container. Mix print developer 1:9. This means one part developer to 9 parts of water. It gets re-used until it is depleted. It turns to a tea color when depleted.

STOP BATH (use in printing only)

Read directions on bottle. Use until depleted (turns lavender). Prints ONLY.

FIXER/HYPO

Mix it 1:4. This means one part fix to 4 parts water.

We use *working solution* fixer until it is depleted. Same chemical for film & paper. We use "hypo check" to determine if the fix is depleted. Milky means it is depleted. Just use one drop.

PERMA WASH/ WASH AID/ HYPO CLEAR

See bottle for direction for mixing up *working solution*. Mix up a gallon in brown bottle and use for about 10 (35mm) rolls of film. Keep track of how many rolls on paper.

WETTING AGENT -- OR PHOTO FLO - add a dash to 32 oz. of water in a bowl or large beaker. Swish reels in it for 1 minute. Our lab manager usually does the mixing of this for you.

FILM PROCESSING MADE EASY: 35mm Film

Have your chemicals mixed & ready before beginning this developing process. Load tank with two rolls of film. **RINSE FILM** (in tank) w/ running water for one minute *before* processing it.

CHECK TIME & TEMPERATURE 68 degrees! FOR THE DEVELOPMENT OF FILM

1) MIX 1:9 WITH WATER =2 OZ. DEVELOPER + 18 OZ. WATER = 20 OZ.

This is for TWO rolls of film. **USE ILFOSOL 3 FILM DEVELOPER ONLY**

Start TIMER and Pour mixed developer (check temp!) into tank.

Agitate for 30 seconds once, then agitate for 5 seconds every 30 seconds until time is up.

Tap tank lightly to get the air bubbles out after each agitation.

2) STOP BATH with WATER: Rinse for 30 SECONDS WITH WATER.

3) FIXER: FIX FILM FOR 5 MINUTES. You need 20 oz. of *working solution* fixer.

You must completely **agitate** fixer every 30 seconds for about 5 seconds for 5 whole minutes.

Use the *working solution* Fixer in Brown Bottle until depleted. Be sure to check the fixer several times when you are fixing your film and especially when you are finished fixing!

Check the working solution fixer with Hypo Check. Do this before you fix your film and during the fixing time (after a few minutes of time and right before you dump it out) IF MILKY - Make NEW FIXER and RE-FIX.

FIXER IS RE-USED UNTIL DEPLETED.

MAKE SURE TO CHECK IT BEFORE USING & DURING

If you need to make FRESH *working solution* FIXER: Mix 1:4 with water.

4 oz. of fixer + 16 oz. Water = 20 Ounces of *Working Solution* Fixer.

AFTER FIXING - RINSE WITH RUNNING WATER for TWO MINUTES

4) PERMA WASH - HEICO - HYPO CLEAR

USE 20 OZ. OF WORKING SOLUTION chemical— See STOCK bottle for mixing amounts of chemical + water. After mixed, it will be in labeled Brown bottle - Working Solution.

AGITATE Your Tank FOR 2 MINUTES with this solution. It washes off the Fixer on your film.

5) WASH FILM: TAKE THE REELS OUT OF TANK - 10 MINUTES IN FILM WASHER

6) PUT REELS INTO A BOWL OF WATER WITH A DASH OF PHOTO FLO (or wetting agent). Swish it around for 45 seconds. Remove film from reels. Squeegee with fingers and hang to dry in the cabinet. SHUT cabinet! Takes about 20 min. to try a roll of film.

PRINTING MADE EASY

Start with a great negative. Make sure it is clean. Use the loupe to scrutinize it. Use an orange static cloth to clean. If it has water spots, rewash in photoflo and hang to dry. *You can use emulsion cleaner IF it is not a water spot.* Use sparingly and carefully w/ Q-tips.

PRINTING TIME is dependent upon the **density of your negative** and **how large your print will be**. How long you expose your paper to light will determine the **PRINT DENSITY**. Print density refers to the overall brightness or darkness of the print. Generally, good print density means you have a range of tones from light to dark in the print. Average exposure time for an 8x10 print from a good negative will be 9 - 17 seconds.

Exposure time (with the enlarger) will adjust your highlights. Filters will adjust your shadows. Low number filters will lessen contrast and high numbers (3 and above) will increase contrast.

Multi-grade Paper means you can use **FILTERS** to print with. Use a 2 1/2 Filter to begin with. Use a 2 1/2 filter to make **CONTACT SHEETS**.

Put in your negative and filter - open the enlarger aperture wide and focus your negative onto a blank white paper (like the back of an old print). Use an easel. Do not crop. Get the entire negative on the paper. Use the **GRAIN FOCUSER. FOCUS!**

Close the aperture down 2-4 stops - depending upon negative density. Turn the timer to 3 seconds and to "T" for Timer. The light will be OFF. It is ready to turn on when you press the red button.

Cut a strip of photo paper and lay it emulsion side UP under the important part of your image. Make 5 increments of time on this **TEST STRIP**. 3, 6, 9, 12, 15

DEVELOP IT FOR ONE TO TWO MINUTES. Do not develop for less than one minute. Put it through the chemistry. You can take it out of the fixer in about one minute and rinse it, put it in a TRAY, carry out to the light to VIEW it.

EXAMINE THE HIGHLIGHTS: Is there tone in the highlight area? Is it too muddy and gray? Is it too dark? Too light? If your highlights are too dark, you need **LESS** exposure time. If highlights are too light, you need **MORE** exposure time.

EXAMINE THE SHADOWS:

You need at least some shadow areas to be a **TRUE BLACK**.

If there are only flat, muddy-looking, gray shadows, you need to add a higher filter. IF the shadow areas lack detail and are too black, you need a lower filter. You can gain detail in the shadow areas with a lower filter.

Evaluate the test strip. You may need to make a new one. *After* deciding on an exposure and filter - make a test print but use a small piece of paper. Place the fragment of printing paper in an important area of your image and set the timer and expose. *No increments of time.* Develop and examine. If you are satisfied, make a **TEST PRINT** on 8x10 paper.

