

Advanced Biomedical Photography



2009 Spring Class Portrait

Spring 2009

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enthusiasm is the germ of success
no one can accomplish anything substantial without it
anonymous

Lucky accidents will seldom happen to people who do not work hard. You will find that you will create photographs and they never seem quite right. Then a much better photograph comes rather quickly and you wonder why you bothered with all that work on the first effort. Actually, the hard work you did in that first effort was put into all future work. That hard work is responsible for the sudden ease of the second and subsequent efforts you will make. If you just sit around waiting for the easy ones, nothing will come to you. Go get it.

adapted from *Sunbeams of Thought*
richard hugo

Course Calendar & Assignments

Week one

Tues March 10 Advanced Biomedical Photography

Thurs March 12 Question & Answers
Project management

Week two

Tues March 17 Lecture - Invisible Spectrum Imaging
Invoice Mock-Ups
Course Assn Selection & Schedule

Thurs March 19 Lecture - Schleiren Photography

week three

Tues March 24 Lecture - The Business of the Imaging in Science

Thurs March 26 **CRIT one** - assignment of choice

Week four

Tues March 31 **CRIT two** - assignment of choice

Thurs April 2 Lecture - "Stereo Techniques, Anaglyphs, and the 3 D Image"
Lecture – Lecture – Synchronizing High Speed Events and
Time Lapse Photography

Week five

Tues April 7 **your PDF book file due**

Thurs April 9 **CRIT three** - assignment of choice

Week six

Tues April 14 WML - archives

Thurs April 16

CRIT four - assignment of choice

Week seven

Tues April 21

Your Book Proof Due

Thurs April 23

Lecture –Traumatic Images

Week eight

Tues April 28

CRIT five - assignment of choice

Thurs April 30

CRIT six - assignment of choice

Week nine

Tues May 5

CRIT seven - assignment of choice

Thurs May 7

George Eastman House Archive Visit

Week ten

Tuesday May 12

CRIT eight - assignment of choice

Thursday May 14

open

Week eleven

Personal Book/Portfolio Project Presentation

Class

Philosophies & Policies

Introduction

My objective for this course stems from the reality that each one of you will be entering the job market as a professional in the near future. For this reason, I believe this course has all the opportunities you might find as a new comer to your first job, maybe having the job title “visual information specialist”.

This course will expose you to photographic techniques as well as organizational skills, DEADLINES, "quality vs. time" considerations and many other issues that a working professional will encounter. While learning to deal with ‘getting *the job done*’, I hope you will begin realize the satisfaction of having pride in YOUR work and a sense of accomplishment. Your efforts in completing these assignments will dictate the results you can expect to receive for yourself.

This is a class about "**Choices**". A great deal of organizing & planning will be necessary on your part to pull together the many components necessary to be successful. Your efforts may lead to PORTFOLIO pieces for you because the assignments are realistic. They could be scheduled tomorrow at anywhere across the country. They reflect the type of photographic situations that any staff or in-house photographer might be to be asked to handle. Producing these assignments will force you to interact with many resources because you will have to go out and DEAL with people or situations. I would hope that these interpersonal experiences will be stimulating and rewarding and help you gain new experiences for you.

As you move towards completion of degree requirements, JPHB 403 may be the last technical photography course that you enroll in. It is for this reason that I would expect you to put forth your finest work and push your comfort zone. In this class, consider me to be your client and that each one of these projects is to be created for the specific needs as outlined. Let this quarter be an opportunity to shine and produce the type of work you are interested in. No reasons why it wasn't what you wanted because you are in charge of what you do from now until May.

I'd like to suggest that your projects do not have to be produced individually. In designing this course, as with most my work, I sometimes work with "collaborators". There is no reason why you can't work in groups or teams. What I might suggest is that on some of the more complicated assignments, you work together when the situation warrants. I would expect different assignments from each of you when this happens, however I know how much can be gained when working in the right combination(s). It might take some extra time in coordinating this, but the positives will certainly outweigh the negatives.

Deadlines & Policies

Because the planning & coordination of events are critical to outcomes, you will have total control of sequencing and **choice of what assignment you do.**

There is total flexibility in the way things can be completed and turned in. To expand on this a bit more, any assignment can be produced in any order that works for you. There will be lectures discussing some new topics, however you are not obligated to produce the quarter's work by the lecture schedule. Because some of these assignments require pre-planning & organizing, I might suggest that you begin to think about each one as soon as possible. Arrangements need to be made to use locations or models may need to be scheduled. Start planning today. Do not hesitate, because you will wish you hadn't!

The first assignment will be due the third week of the quarter. It can be any assignment from the syllabus. The following assignments will be due as quarter progresses. The next assignment submitted can be any assignment from the syllabus. From the fifth week on, at least one assignment will be due each week and all the assignments you proposed must be turned in for full credit. There will be no opportunity for tardiness in this course. These deadlines should provide more than adequate time if you are effective in your planning and execution.

Course reality

The DEADLINE is the time I expect to receive your WORK.

If your work is not up for critique, it will be considered late and will count against you be awarded the grade that you have requested.

A Personal Goal:

I think you should cultivate an attitude that:

Creates customer satisfaction(me). This attitude might be described as your mission or philosophy.

OUR CRITIQUES will start at 2:00
- "the Fed Ex Principle" -

Another Personal Goal

Never miss a deadline

Submission Requirements

This class has been designed for you to accomplish certain tasks within each assignment. Each assignment has specific requests and should be accomplished as put forth. Do not modify these requests. If I ask for a black & white print that is what I want. It is your responsibility to fulfill the requests in the way they are spelled out.

You will decide how many assignments that you will need to be produce for full credit this quarter. **Failure to complete any portion of your work will result in the lowering of your average by an appropriate letter grade.** This is meant to allow students who do complete the required work to receive full credit and not to be penalized. Participation in the final presentation is also required for full credit and is weighted accordingly

Acceptable Work

In certain cases your work will not be acceptable to me. It may be a bad print or not what I asked for. I will request by the next critique that you fix what has been identified as needing improvement. Your work must be determined to be professional.

Incompletes & ReDo's

If for any REASON, **I decide** your submission is not complete, I will award a grade of I. It is not your choice or your option. I am the customer. Should pieces of a project not come together on time, please contact me before, not after. **You will be eligible for only one incomplete this quarter or your class contract will not be valid.**

For this class, you will not have the opportunity to decide whether to redo the project. Work is expected to be at the right level on the first attempt. Since we are dealing with plenty of advance notice here, there should be no surprises. Plan accordingly. Organize your activities and plan for things not working.

Late Policy

In reality, when work is not finished on time, it creates problems - and not solutions - for you and your client. First, it upsets the client because you may have put them behind. Always keep in mind the reason they came to you in the first place was for professional service.

The second impact of not completing things on time is often you develop a bad reputation and you may not get future referrals. Your reputation and credibility rests on your ability to perform in an "on-time basis". Make every effort to produce this body of work in a timely fashion. Consequently work is either on time or it is not. Be here at 2:00.

Exceptions from the late policy: If you are indeed making serious progress towards something incredible and the potential exists you will be late, it is your responsibility to speak to me before hand. **In this situation I might grant extensions without penalty by awarding an incomplete when appropriate.**

File Submission: Submit your files to the CIAS.RIT.EDU FTP site up to 1:30pm on any day where you will be showing your work. I will be moving the files at that time. Work that is not on the server will be considered late. Because we have a very large class, no files will be transferred during class time. Be organized and you will have no problems.

General Information I want this quarter to be a challenge but yet rewarding experience for you. I want to work with you and not against you, but you need to want this to happen. Consider me a resource. If you are in question as to what I want or need, it is your responsibility to ask. I cannot possibly know what questions you have. If you have questions about whether an assignment can be modified, it is your responsibility to see me before you modify the assignment for approval, **NOT AFTER.**

Determination

the race is not always to the swift, but rather to those who can keep on running.....

Grading

The grading for this course will be different than other courses that you may have taken from me.

In this class, you will not receive project grades of A, B, or C but rather:

Professional or Not

To receive a C in this class:

You must produce a minimum of **5** projects including the Spectral comparison. All projects must receive “professional” evaluation. Additionally you will be expected to complete the class book proof and book project on time. No projects can be late.

To receive a B in this class,

You must produce a minimum of **6** projects including the Spectral comparison. All projects must receive “professional” evaluation. Additionally you will be expected to complete the class book proof and book project on time. No projects can be late.

To receive an A in this class

You must produce a minimum of **7** projects including the Spectral comparison. All projects must receive “professional” evaluation. Additionally you will be expected to complete the class book proof and book project on time. No projects can be late.

Invoices

A very important aspect of working as a professional is getting paid. All of your services will have a cash value associated with them. An important requirement for this class, will be for each project to be submitted with your invoice for services rendered. This invoice can be rather generic on your part or quite detailed. This is up to you. The invoice should be understandable to the client. Consider basic things such as how the client can reach you, where they should mail your payments as well as understand why they are paying you what they are. Questions, please ask. On the following page is a copy of an invoice I use. Failure to invoice me with the assignment may result in penalty towards the grade you have identified.

Class Academic Contract

To earn the grade that you want for this class you must submit your choices of assignments that you will produce and the dates that you will be selecting to show your work. This contract must be submitted using email as a .doc file by the date that is listed on the course schedule on page 4.



photography
michael r peres

Date: March 8, 2009

Invoice # 3-8-09

To: Professor Douglas Merrill
College of Science
80 Lomb Memorial Drive
Rochester Institute of Technology
Rochester, New York 142623

re: original art work

Framed Ink Jet Photomicrograph

Print	\$300.00
tax	<u>exempt</u>
Total Due	\$300.00

make checks payable:
Michael Peres

200 parkwood avenue

rochester, new york 14620

585-473-4413

This ASSIGNMENT IS REQUIRED for ALL of you.

Assignment: Spectral comparison: UV, Visible, IR

Objective: Utilizing the appropriate digital cameras and demonstrate the tonal differences a subject will reveal when photographing using UV, visible and IR. Submit your photographs as a small scientific poster.

Purpose: Dealing with energy that cannot be seen presents some interesting problems for the scientific photographer. Where to focus, what spectra will be recorded, and exposure determination are but a few of the problems one could expect. Where does one start? This assignment will allow you to gain hands on experience in photographing with the visible as well as non-visible spectrum.

Assignment: Select a subject you feel will allow for proper demonstration of different rendition with UV, visible & IR spectrums. In the studio, photograph your subject three times in the same configuration utilizing the three spectrums. In all three set ups, only the energy used to make the exposure should change, not the lighting or ratios, not the placement of, or the subjects should be different.

You will find FLAT lighting to be the most effective for your needs. Harsh light that produces contrast may not behave the same way in the non-visible spectrum. In other words, use pretty basic copy lighting or a slight modification there of for best results.

Submission: One 16x20 print using an effective layout displaying the three different images revealing the differences one subject will present using UV, visible & IR spectrums. *Your print should have a legend labeling the spectrum that was used to make each one.* Some prior posters have included a spectral scale as well. Please attribute sources in a professional manner.

Assignment Macro as Design

Objective:

Produce color photographs that might be considered as **cover illustrations** for a journal or publication such as *Science*. The photographs need to exhibit strong design & visual creativity as well as technical correctness. **One of the images must be photographed at three times magnified (verified by the inclusion of a ruler in an accompanying frame).**

Purpose: The purpose of this exercise is to allow you to further refine your skills as a photomacrographer. In producing this assignment, you will utilize all your photographic skills, techniques in lighting & most importantly, your CREATIVITY to produce **THREE** files of the **SAME** subject and one of these pictures must be photographed using a camera magnification of x3.

Assignment: Using the appropriate equipment, photograph seeds in a **wet** subject of your choice as described above. The subject of choice is yours, however the lighting that you create **must reveal some characteristics of the subject**, i.e. color, texture, shape, etc. One image must be made of your subject & a RULER, to demonstrate the proper magnification at x3. **Without the ruler, the work will be considered not professional.**

Submission

A minimum of 3 – 1500 pixel TIF files properly named
E.G. - mrp_1.tif

Assignment Making the Routine Interesting

Objective:

Using creativity, produce interesting color pictures and a story for an article about the subject as a feature magazine such as those found on airplanes. Photograph and write in a style that commands interest by demonstrating new and innovative visual and written communication approaches as your strategies.

Purpose: This assignment is designed to help you to develop alternative ways to photograph when dealing with common subjects. The new lighting techniques might be referred to as optical staining. By placing colored theater gels in front of hot light sources, you can achieve very unusual but ELEGANT LIGHTING similar to the work of world renown photographer Lennart Nilsson.

Assignment: The subject that is chosen should be of some interest to you, so you can investigate it with some fascination. I might suggest you do a little research on the subject before shooting. This will allow you to portray the subject better photographically. Ultimately research will be necessary for the assignment.

ILLUMINATE your subject with ELEGANT & UNUSUAL light. One word of caution, be careful not to create a circus effect by using too much color. Remember this effect should enhance the visual presentation, not overpower the subject in a sea of color. Another word of advice, always try to use a touch of white light. It will lend credibility.

Produce a minimum of 3-color photographs. Optical staining is one of many ways to achieve the visual impact I am looking for. Additionally, write a one page (200-300 word) paper featuring your subject.

Submission:

A minimum of 3 – 1500 pixel TIF files properly named

A HARD COPY word essay at CRIT AS WELL AS the .doc file on the server

Assignment the Studio Portrait

Objective: Create interesting studio lighting and produce a high quality 11 x14 black and white portrait of a person in the **studio that reveals the subject's personality.** (This is not a grip and grin Photo one lighting ratio project.)

Purpose: This assignment is designed to give you an opportunity to study the effect of light on the face, to learn how to deal with people's vanity and/or insecurities in front of the camera and develop more experience in the studio. It will give you experience with lighting, posing and dealing with the "HUMAN EGO" in creating a formal portrait that is both technically correct as well as ELEGANT and interesting.

Assignment: It goes without saying that you will be called on endless times to make photographs of various people you work with or for. They might be quickly passports, or very involved studio portraits, but they involve working with faces and light. Do you use broad or narrow light? How can I make somebody who is a little chunky look thinner? These could be real problems for you tomorrow. For this assignment you will need a model who is interesting in sitting for a formal portrait. I emphasize this because I would speculate, that someone who wants to have their portrait created will be willing to work with you.

Once in the studio, make a formal portrait of your subject that demonstrates an interesting pose, uses interesting lighting as well as a interesting presentation of subject. All good portraits do not happen immediately. You are going to have to break down the nervous tension that may be present, so be willing to shoot a lot.

Submission: Print one approximately 11x14 exhibition print of your best effort in a 16x20 over matt.

Assignment the Environmental Portrait

Objective: Using strong design and a good sense of environment, create a 11 x 14 color portrait of an individual in their work space that **communicates to the viewer exactly who the subject is, where the subject is, as well as what they do there.**

Purpose: It can be said with a fair amount of certainty that you will make a great many photographs of people at their work place. These pictures may be for the institution's weekly newsletter or for the annual report or for personal reasons. This assignment is designed to give you exposure to photographing people out on location and the problems associated with light sources and color temperature. **You must use supplemental lighting for this assignment.**

Assignment: This assignment was, as was the previous exercise, presented as an opportunity to work with light & people, and so will this assignment. It will force you to shoot out on location with new equipment and unknown light sources adding a certain LACK OF CONTROL to the process. To make good environmental portraits, it requires a good use of design elements & lighting. The elements chosen to be included must enhance and contribute to the overall effort while allowing the viewer of your photograph an understanding of who & where the subject is.

As a general RULE OF THUMB:

Work to simplify the environment & subtract elements from the composition. Locate a professionally appearing individual and a space to photograph them in. The subject could be a scientist, doctor, researcher or any other professional for this photograph. The specific occupation of your subject is not of major importance for the assignment, but for future portfolio consideration, you may wish to utilize a subject that reflects the type of occupation you see for yourself. Using electronic flash mixed with natural illumination shoot a pleasing portrait of your subject. Make a photograph that creates a nice sense of space & light by letting the subject interact with the elements. Utilization of tungsten illumination can add interesting effects to the overall image, so be aware of it and try to integrate it into the final presentation

Submission: Present one 11x14 exhibition color print window matted in a 16x20 board.

Assignment Architecture - the Interior

Objective: Create images for a feature story about the “new RIT”. The photographs - all interiors - must be of RIT facilities. Consideration must be taken in subject selection. The final images must demonstrate proper color balance and effective use of light for use in an annual report and ooze the progressive by showcasing architecture of the new and exciting RIT.

Purpose: This assignment is designed to help you understand and deal with considerations that need to be made in pursuit of the well-illustrated interior. In addition to being a potentially strong portfolio piece, this assignment will give you the opportunity to meet with administrators in trying access some of these spaces while scheduling your shoot. It will help you learn how to plan effectively for location photography and working with other's schedules. Additionally the color of different lights sources will be dealt with in the pursuit of good color.

Assignment: Institutions whether they be medical or not, are a place of constant change, personnel & physical plant alike. As a photographer, you most likely will be called upon to document this change of environment. Locate what you consider to be a "portfolio piece" interior and begin negotiations immediately for access to it at some future date. It can be institutional or a place of business. As has been my past policy, the subject is up to you, but it should reflect ELEGANCE.

Make a series of no less than 5-7 photographs. The images should reflect good:

1. Exposure & color control required for reproduction in print
2. Camera control with respect to perspective and interesting point of view
3. Good use &/or control of illumination and time of day considerations

Submission: 1500 pixel TIF file format

Assignment QTVR tour

Objective: Using appropriate software and camera techniques, create one panoramic VRtour including a 2-room minimum and linked to 1-object movie that is integrated into the scene.

Purpose: Over the course of your studies, often time becomes the limiting factor when you are trying to produce good work. This assignment will give you a chance to gain additional experience in making immersive imagery.

Assignment: Produce 2 VR movies that are to be linked. Additionally in one of the VR movies, there must be a link to an object movie. The 2 movies should have a theme or reason that they are linked together.

Submission: The movies properly prepared for web/screen delivery using a 640 x 480 aspect ratio.

Assignment Public relations - a closer look

Objective: Create an informative press release including pictures. This project should feature an event that would be of community interest and that ultimately could be published in a weekly newsletter format.

Purpose: Creating useful and informative public relations photographs can be a very challenging and rewarding experience. Choosing the right angle, timing and effective lighting can make all the difference in whether you end up with something a bit more interesting than the grip and grin. All these decisions must be made generally in an atmosphere that is not conducive to control as well as time is at a premium. This assignment will give the opportunity to gain first hand knowledge and technique of making good public relations.

Assignment: As expenses and pressures become greater, for the health care industry, so will it be more difficult for institutions to make ends meet. This has already become an issue and is forcing health care facilities to market themselves more aggressively in pursuit of financial resources. In this struggle for existence, benefactors also play a substantial role in generating money. Locate by whatever means possible, an event that is occurring within the community that is particularly newsworthy. Access the event and make dynamic public relations pictures that tell the story.

Additionally write the 5 W's of the event using a press release format. If you have questions or need assistance please see me immediately.

Submission:

A 1-page press release and representative photographs

Example:

For Immediate Release

Date: Feb. 23, 2009

Contact: Kelly Downs
(585) 475-5094;

kaduns@rit.edu

PHOTOS AVAILABLE: http://www.rit.edu/news/pics/Aesthetic_Imperfections.jpg
<http://www.rit.edu/news/pics/Octopus.jpg>

Images from Science 2 Exhibition Opens in Dayton, Ohio, Feb. 23

ArtStreet at University of Dayton welcomes highly acclaimed photography showcase

Remarkable images captured by acclaimed scientists, astronomers and oceanographers will be among those featured in an international photography exhibition produced by Rochester Institute of Technology.

Images from Science 2 opens at ArtStreet at the University of Dayton in Dayton, Ohio, on Monday, Feb. 23. This is the first opening for this traveling exhibition since it debuted at RIT's upstate New York campus last October. **The show runs through March 26.**

The exhibition of 61 photographs provides a spectacular view of discoveries and research seen inside laboratories and observatories. Various scientific disciplines are represented including astronomy, biology, engineering, medicine, oceanography, physics and nanotechnology. An international selection committee chose the final images from more than 300 entries based on their scientific content, aesthetics and difficulty in making.

"The quality of the images is excellent," says Michael Peres, RIT department chair of biomedical photographic communications and one of the exhibit organizers. "All the traditional imaging methods are utilized, including micrography, high-speed nature photography, macro photography, but also some obscure methods such as scanning tunneling microscopy and radiography. It's fascinating to see what people are currently doing in their respective scientific fields and the types of images they are producing."

Images from Science 2 is an encore photography exhibition to the original that debuted in 2002. Since that time, the inaugural exhibition has been hosted by 23 organizations in seven different countries, most recently in the Czech Republic.

The exhibits are the brainchild of Michael Peres and Andrew Davidhazy, professors in RIT's School of Photographic Arts and Sciences.

"The first exhibition was so successful and far reaching because of the work produced by its outstanding contributors," says Andrew Davidhazy, RIT department chair of imaging and photographic technology and one of the exhibit organizers. "Its longevity can be attributed to the stunning photographs that depict life as it is seldom seen by the general public. With this second exhibit, we wanted to once again emphasize to the photographic community that images made other than for artistic purposes can be appreciated not only for their scientific content, but also for their aesthetics."

To accompany *Images from Science 2*, RIT Cary Graphic Arts Press, the publishing arm of the Melbert B. Cary Jr. Graphic Arts Collection at RIT, produced a full-color companion catalog of all the images in the exhibition. The publication features an introduction by Martin Scott, a former director of scientific imaging at Eastman Kodak Co. The catalog can be purchased online at <http://carypress.rit.edu> and www.amazon.com.

For more information, call RIT's School of Photographic Arts and Sciences at (585) 475-2863 or visit the *Images from Science* Web site at <http://images.rit.edu>.

About RIT: Rochester Institute of Technology is internationally recognized for academic leadership in computing, engineering, imaging technology, and fine and applied arts, in addition to unparalleled support services for students with hearing loss. Nearly 16,500 full- and part-time students are enrolled in more than 200 career-oriented and professional programs at RIT, and its cooperative education program is one of the oldest and largest in the nation.

For two decades, *U.S. News & World Report* has ranked RIT among the nation's leading comprehensive universities. RIT is featured in The Princeton Review's 2009 edition of

The Best 368 Colleges and in *Barron's Best Buys in Education*. *The Chronicle of Higher Education* recognizes RIT as a "Great College to Work For."

About ArtStreet: The University of Dayton launched ArtStreet in Fall 2004. An architecturally innovative multi-arts facility and residence, the design of ArtStreet to support its arts-based living/learning philosophy is distinctive among U.S. universities. Through its unique environment and diverse range of programs designed to involve all students, ArtStreet fosters student exploration of arts and culture, and cross-disciplinary creative collaboration to connect living and learning both within and outside of the classroom setting. For more information on ArtStreet, visit our website at <http://artstreet.udayton.edu>

##

Credit and caption information for *Images from Science 2* photographs:

Aesthetic Imperfections, 2008

Hans U. Danzebrink, Atomic force microscope image

Caption: Dislocations in a photonic crystal arrangement of polystyrene nanospheres

Octopus Paralarvae, 2000

David Paul, photograph, color positive film

Caption: Photographed on the Coral Sea, Far North Queensland, this octopus paralarvae is a pelagic juvenile of an unknown species collected at night over deep water. Actual size is about 15 mm top to bottom.

Assignment Patient photography and quality

Objective: Photograph the correct series of views required for proper cranio-facial photography as well as all intraoral views of MRP demonstrating proper technique, magnification and lighting.

Purpose: Producing high quality patient photography is critical for one's survival in a hospital. Additionally having quality patient photography in your portfolio is a good idea. This assignment will give you an opportunity to produce portfolio quality patient photography.

Assignment: One of your major duties as a medical photographer will be the photography of patients. This could include documenting various stages of unusual conditions or other aspects of the recording process. You may be called upon to go to the floor or work in the studio. This assignment will give you the opportunity to produce high quality exacting views of standard patient photography.

1. Photograph a patient at proper repro ratio demonstrating:
 - a full anterior,
 - a full left and right lateral,
 - a dogs eye view,
 - and a full left and right 45°.
2. Photograph the same patient producing Intra-oral views at proper repro ratios of:
 - a full anterior showing the entire dentition,
 - the lingual occlusal surfaces,
 - the palatal occlusal surfaces,
 - left and right buccal view with teeth occluded

These work should reflect:

1. Proper views.
2. Proper patient positioning.
3. Proper magnification at film as well a consistent through out series.
4. Proper lighting.
5. Professional quality transparencies.

Submission: Submit images of the required views using 1500 tiff files.

Assignment the Studio and Lighting

Objective: In the studio produce a color image of a box of Johnson and Johnson cotton that exhibits effective use of appropriate lighting and design principles. This picture requires you use an appropriate lighting ratio to create both highlight and shadow detail. Additionally using PhotoShop, correct the image horizontals and vertical so the box is corrected and square

Purpose: It can be seen from the variety of assignments shared thus far, a great many techniques must be utilized by the biomedical photographer. It will be to your credit to be capable of good studio photography as well. Lighting in the studio does not just happen, it evolves with hard work. Being capable in the studio can mean the difference in many cases of getting O.K. jobs or getting great ones. This assignment will allow you to utilize techniques in lighting for a desired result.

Assignment: The studio can be a great place for some photographers, while being a totally exacerbating place for others. Your creativity, use of light and control of the entire photographic process are the realities of working in this space. Researchers and medical personnel alike will often develop new equipment or techniques that will require documentation for grants or articles. Your ability to produce strong photographs in the studio is important.

- 1.** Locate or purchase **a box of any cotton product** such as Johnson and Johnson Q Tips® for example. When buying your product, pay careful attention to the quality of the box. It is the subject. I might suggest you buy two boxes just in case your idea changes or the box is damaged.
- 2.** As part of your background, I want you to use a piece of fabric. The color and integration of this material I will leave up to your creative instincts.
- 3.** The third component of the picture, needs to be something black or very close in color. This mystery object can be anything. It is this element that will allow you to direct your photograph.

In the studio, put together the elements of your picture, integrating them with the background and/or fabric. Be patient and work with the material, so that it looks "comfortable" with the other elements. Evolving this picture will take time.

I would prefer you shoot with electronic flash, but this is not a requirement. I want you to light the box so that:

1. One side of the box has more light on it than any other side.
2. and there is detail in both the white cotton and the black object.

Submission: A 1500 pixel .tif file

Assignment the Sneeze

or other agreed upon HIGH SPEED event

Objective: Using any format and/or emulsion, and technique to produce a high quality image of a sneeze to be used for the cover of Allergy Digest, illustrating the facial contortions and aspirate produced when a person sneezes.

Purpose: I have to assume that for many of you, producing a photograph of a sneeze last year produced less than satisfactory results. It is a reasonably challenging assignment and I assume many of you can do better if you use your prior experiences and intuitions.

The philosophy of **Advanced** is to have you produce portfolio quality work, by giving you Advanced opportunities with some problems you've already encountered. This assignment is no different. Assignment twelve is an opportunity to redo and produce something of merit and show off!

Assignment: Using any equipment you want, produce a photograph that illustrates the aspirate from a human sneeze.

Submission: OPEN

Assignment research photography

Objective: create a SINGLE striking illustration for an article chronicling the development of a plant's root system to be used in a journal/periodical.

Purpose: Problem solving comes in a variety of formats and with very different dilemmas. In this case, you are confronted with the problem of locating a root system. You may be forced to grow one for use in this assignment. Additionally, lighting will be critical to the success of your work. This project will be a challenge to light effectively.

Assignment: Using the root system, create a strongly illuminated photograph portraying the root system of the developing plant. Do not photograph storage roots or tubers. The most successful projects I have ever seen have come from germinating your own seeds.

Submission: OPEN

Assignment research photography

Objective: Using technique, create striking illustrations of the 4-sides of a pine cone or similar "sized " subject. This series is to be used in a journal/periodical.

Purpose: This assignment will give you experience producing high quality photographs that will ultimately be used as a series. For this reason your approaches must be consistent for the work to be used effectively together. Also, this project will give you the opportunity to create effective lighting and subject management approaches that would be innovative and communicative.

Assignment: Using a pine cone or similar sized object, create 4 illustrations using appropriate techniques that portrays the subject in a highly accurate way but results in aesthetically pleasing image.

Submission: Submit your photographs as a PRINT – any size

Assignment open

Objective: Create your own work but it must be **based on a proposal** you submit prior to do the work. DO NOT come to class with this project without having received prior approval!

Assignment: This assignment will give you the opportunity to produce a self-directed photograph. This assignment should be an experiment and so the approval of this assignment must go through me and so **a written proposal is required and necessary before starting your work**. The project must have a specific objective, goal, audience and follow the matrix as written.

Submission: Based on your proposal .

Assignment Paper on an Issue effecting Contemporary Imaging

Objective: Generate no less than a 4 page paper discussing issues influencing contemporary imaging. This will require research both inside and outside of school. This work should utilize references beyond the class discussion that might be found on the WEB, through professional contacts, etc.

Purpose: Producing effective research is always a challenge. With the Web as a potential that is continually being developed, this project will enable you to do research from remote sites

Assignment: Generate no less than a 5 page paper that discusses an issue facing contemporary imaging. This could be technology, ethics, market definitions, etc.

Obviously this being a written project, I will be considering spelling, grammar and the general cohesiveness of your thought process.

Submission: One 4 or more page paper. Please include your references.

Assignment Photographing Nature & Natural Science

Objective: Create 5 sets of color photographs that are both scientifically correct and strong visually based on the below list (I expect 100% accuracy).

Purpose: Doing some research will give you in many respects a much better sensitivity of the subject you are being asked to photograph. In this case, research will be the only way you most probably can identify these subjects. It is my desires that through this assignment you might understand better the research some projects entail prior to ever pushing the button. Once identification has been established the creation of a strong visual in the field presents many problems unique to location photography that must be handled.

Assignment:

Dr. Herbert Botany think your work was so good that he wants more. Using the below supplied list, correctly identify and photograph Five of the following eleven possibilities. Additionally, one image should be made that represents the environment the specimen would be found in.

1. The apical bud tips of *Acer rubrum*.
2. The floral buds of *Acer rubrum*.
3. The floral bud of *Symplocarysus foetidus*
4. The frond of *Osmunda cinnamonea*.
5. The floral bud of *Thalictrum diocum*.
6. The floral bud of *Trillium*.
7. The catkin of *Salix discolor*.
8. The floral bud of *Caltha palustris*.
9. The apical bud of *Typha angustifolia*.
10. The floral bud of *Hepatica* (either lobed).
11. The bark of any species of *Quercus*.

Note:

Due to weather, some of these subjects might not mature at the proper times. If this is the case, photographing other subjects is acceptable, however you must properly identify them and supply me with a copy of the key.

Submission:

Ten color files from the above listed subjects. Five of the images should be of the requested views demonstrating optimal visual interest and six of the images should of the environments where the subjects would potentially be found.

Assignment Illustrating for Medicine

Objective: Create a striking visual to be used as a potential cover photograph for a chronic pain care unit brochure that features a **headache**.

Purpose: As you may have experienced, creating illustrations that work are challenging. The evolution of good ideas may not always be as successful as you had intended, nor produced on demand. This assignment is designed to give you the opportunity to produce a quality illustration to be used as a marketing photograph. The total concept development is up to you.

Assignment: Using any format and emulsion, create a striking visual to be used on a cover for a chronic pain care unit brochure featuring **headaches**. The idea, format, and other creative decisions are your call.

Submission: OPEN

Assignment GROUP PHOTO

Objective:

Using any camera format and/or negative emulsion, produce one photograph of a group that is comprised of at least 8 – 10 people. In the group photograph, everyone's face must be clearly visible. Label the bottom on the print with the names using an appropriate method.

Assignment:

Locate a group in need of a picture. This group could be a club, class or group of friends. Using proper camera and photographic techniques, produce a print of that group that demonstrates proper personal management. And results in an interesting picture. In this exercise, location, pose and lighting will all be a part of the evaluation. Please be very careful of found light and shadows. Be careful to include everyone and not include closed eyes

Submission:

One print and a list of the names of all people in the picture imprinted on the front on the bottom.

Assignment Composites

Objective:

Using any camera format and/or negative emulsion, produce one composite photograph of a group that is comprised of at least 8 – 10 people. In the composite photograph, everyone's picture must separate and consistently handled. Labeling below each image is imperative in an appropriate manner. Across the top impose a proper title for the composite.

Assignment:

Locate a group in need of a composite picture. This group could be a club, class or group of friends. Using proper camera and photographic techniques, produce a composite print of that group that demonstrates effective approaches and results in a professional picture. In this exercise, location, pose and lighting will all be a part of the evaluation.

Submission:

One print and a list of the names of all people in the picture imprinted on the front on the bottom.

Assignment Stereo photography

Objective:

Assignment:

Submission:

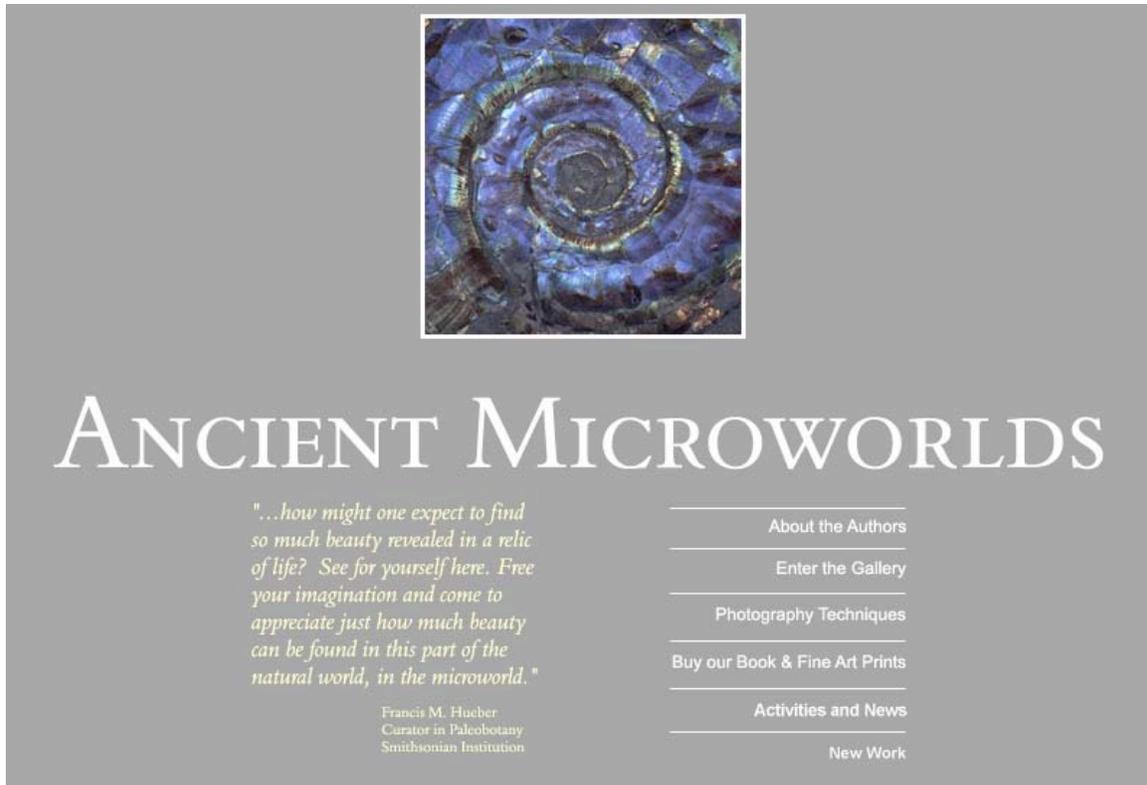
Examples of stereo pairs using film based stereo photography

or

Examples of digital stereo anaglyphs created with direct digital cameras and Adobe PhotoShop®

Assignment Book Review

Create a book review featuring a book from the Wallace Memorial Library. You must bring the book to class and have the cover as an image as shown below.



Ancient Microworlds by Giraud Foster and Norman Barker

Printed by Custom & Limited Editions

San Francisco • New York

ISBN 1 - 881529-65-7

Written by Professor Michael Peres

Chair, Biomedical Photographic Communications

During my career, I have been asked to write several book reviews. In each of these reviews, I have found myself being challenged to create an accurate analysis of a book for readers but to also balance the review with the difficult tasks involved with the production of a book – beginning with the conception of the idea and culminating with delivery of the final printed work. Producing a book is a very significant task. *Ancient Microworlds*

by Giraud Foster and Norman Barker is a truly amazing book for this achievement but is also significant for many other reasons. The book is the outcome of a 12 year commitment to photograph microscopic subjects found frozen in time in the world of the fossil record. The book is a gorgeous 12inch x 12inch 4-color monograph that is 183 pages in length. The quality of the printing can be felt immediately upon picking up the book. Every detail from the layout & design up through the imagery found in the exquisite 4-color reproductions are examples of photography and printing found at the highest levels. Attention has been paid to every detail, which provides a very satisfying experience found looking at high quality photography books.

The book is a collection of photographs made of fossils that were cast during different eras as well as found in different minerals. The 78 photographs that were chosen for inclusion are stunning examples of both highly accurate scientific pictures as well as visually interesting pictures that use strong pattern, line, shape and/or textures. The photographs in Ancient Microworlds each one is unique and portrays subjects that were alive in a very satisfying way. The methods that were developed for the project seem to bring the subjects to life as a consequence of the lighting and treatments that were mastered.

Photographing under a simple microscope is quite challenging independent of aesthetic goals. There are real problems associated with picture making in the magnified world such as the achieving of critical focus in a subject, or the making of pictures that have adequate depth of field. Additionally the management of dirt and reflections is also challenging. The photography published in this book demonstrates exceptional in this domain. There are many photographic competitions that reward excellence in the area of magnified imaging. If there were a prize for a complete book, Ancient Microworlds would be strong candidate. If you enjoy looking at beautiful pictures of fossils found in paleontology, then you should seriously consider seeing this masterpiece. You will not be disappointed.

Assignment Oral presentation on an Issue effecting Contemporary Imaging

Objective: Present no less than a 4-minute oral presentation using technology as required which discusses issues influencing contemporary imaging. This will require research both inside and outside of school. This work should utilize references beyond the class discussion that might be found on the WEB, through professional contacts, etc.

Purpose: Producing effective research is always a challenge. With the Web as a potential that is continually being developed, this project will enable you to do research from remote sites as well as practice in the oral presentation arena.

Assignment:

Submission: Give the paper.

Your work to date.

“ A work-in-progress”



your portrait
your biography and or resume
your web site info
your contact info
your photographs

Project DUE dates:

PDF book proof - April 7th
Physical Book proof - April 21st
Final Book - Week eleven TBA