Preparing A Digital Portfolio

A Guide for the Working Artist

by
Daniel Kasser

Table of Contents

Forward

Creating works of art, documenting your art work and promoting your career using that documentation are inter-related activities. The majority of artists I have known dread documenting their art work. Many of them have confided that it is a painful, "redundant" process. Making slides frequently requires additional skill sets that they may not have. Subsequently, this important component of their career development goes by neglected or is created in a reactive mode, when the call from an interested client or an opportunity to join a gallery occurs. Documentation made in this manner is usually rough around the edges. I too am prepared to admit that I do not like this part of the process, but I would be the first to tell you when it becomes an organized process it is painless, useful, satisfying.

I have taught the process of documenting artworks to students and profesional artists for over twenty years as a routine part of my assignment as artist/art educator at the University of the Pacific or in workshops throughout the Northern California region. I have had the satisfaction of watching many young artists launch their careers using these valuable skill sets, first in graduate programs and later in professional life. I have also watched the films and equipment improve and become more affordable to the point that all is needed for the average artist to produce a professional level slide portfolio is interest and a few essential guide lines.

Since the advent and practical application of digital photography and the internet the era of the artist's self-promotion has gottten somwhat easier. Ironically, despite the easier process of digital, the quality of the documentatin continues to be uneaven! This quide was created for film-based (slides) photographers and the basics it offers will guarantee that your digital results will be "spot on accurate. The reach for quality never really changes for professional artists/designers.

In the pages that follow offer a very basic recipe for the process of getting organized and producing the essential materials to record your own history as an artist and enhance your career prospects. Any time spent with an Art Historian will reaffirm the importance of writing down your history in words and pictures, and assembling it in a form that can become accessible to an audience, present and future. It is the beginning of your own catalog raisonne, a comprehensive document of your accomplishments as an artist.

If only the old saying was true: "the art speaks for itself." I personally don't believe that all art speaks for itself. I think the artist or some champion of their vision, has to make it available and provide a context for others to understand it. A well developed resume and biographical statement, a beautifully executed set of slides accompanied by an artist's statement, will provide your work with a meaningful context and say enough to initiate professional relationships with art directors, gallery owners or community arts commissioners.

What I hope to offer you through the sequence of enclosed topics is a sound reason for why you need to make slides, and an economy of means that will serve you well -- saving you valuable time and money. If this process is executed correctly one session should give you a set of image files that will fulfill almost all of the routine needs of an artist attempting to develop their career: a personal library of your accomplishments: reference material for public presentations and consumption through high quality reproduction grade images that can accurately illustrate your material on the internet, in a printed exhibition catalog/announcement/poster, articles/review of your art works.

Dan Kasser, Professor of Art
University of the Pacific
2001

Why do we make slides of works of art?
What are your objectives?

Asking yourself these most fundamental questions will certainly clarify your objectives and almost always result in a successful session of making slides from your original works of art. Its part of the process of promoting your career as an artist. So . . . lets get something straight from the outset; Making photographic slides of your work is not the same thing as making art. It is far less interesting, and far less intuitive. But, if you do not attend to the same level of detail that you give your art-making activities, your art-copying activity will probably disappoint you, and your editor. and your prospective client, or your prospective juror.

There are a number of reasons why we make slides of works of art. The two principle reasons are *documentation* and *representation*. Documenting your art work is a matter of record keeping, and developing your own history. After the work leaves your studio it is rare that the artist will have the opportunity to see it again under ideal conditions for making quality slides. There are of course, Exceptions to this thought. The best time to make a copy of an art work is before it leaves your studio, before a frame/matt and glass are added or it is installed in a public place where any number of less than ideal conditions prohibit photographing. One of the most compelling reasons to make slides of your art works in the studio is economy! This is your golden opportunity to make a document that can be "re-purposed without being re-done" (to borrow a contemporary phrase from the art directors vocabulary). This is your opportunity to balance the lighting and add color control strips, to secure a very high quality "master set" of slides. Should your work be used in reproduction these slides will save endless hours of frustration. Documentation of an artists' works is a greatly overlooked and/or under-rated component of an artist's career. Those artists who do it regularly and do it well derive the assets immediately and historically. This is especially true for younger artists entering the field.

The photographic slide of your art work is a *representation of the original work of art*. It is not the original work of art. It is a surrogate that is indexed to your work and precedes the actual viewing of the work in curatorial and juried environments. Slides of your art work makes first and lasting impressions. It is designed to speak to a client, a critic, a juror, a historian. Each of them will use your slides within different durations and attention spans. When working with clients, critics, historians, the slide will receive extended and repeated attention as they develop correspondences and insights in an attempt to convey the essential qualities found in your work. From my experience with jurors and competitions, each of your slides will be on screen less than two seconds. If you submitted four slides, you have eight seconds to make your point. Depressing? It doesn't have to be. Seen in a positive light it may be the most objective reading you will receive for the power of your vision and art works to transcend the status quo. It is feedback in the pursest form. In most situations that directly affects artists' careers, good impressions can lead to exhibitions, lucrative commissions, employment and long lasting professional relationships and an important self-affirmation that you are "making it in the art world." One thing is for certain, when the slides are poorly done or draw attention to themselves for the wrong reasons they can be a liability to your career.

If making art is an intuitive process for you, this is a good time to develop a more pragmatic approach to the process of documenting your art work. We could learn a valuable lesson from a successful commercial photograph. Remember, we rely upon commercial photographs as a long-distance description of a material object before we actually see it. We rely upon the photograph to tell us about the subject matter, the surface qualities and the scale of the object. Done well, this can be a very efficient and effective means of communication. So, lets get down to the details.

What Equipment Will You Need?

Making slides of your art work really requires very little equipment. Naturally, owning key pieces of equipment is essential and the quality of this inventory is helpful. Over the years I have seen students create very high quality slide portfolios with modest equipment and generous amounts of attention to detail. Choose your equipment carefully. Resist the temptation or the pitch to over buy. Borrow or rent until you are sure and comfortable with your needs. Below is a basic, prioritized list of equipment useful to create a slide portfolio by yourself. If you gather and care for these essential pieces you will not need much else to complete this part of the process.

Camera

Begin with a basic DSLR 35 mm camera and a good quality lens. Your DSL camera should have a manual mode setting to be most effective. Automatic cameras will introduce tonal distortions because of the light meter's tendencies to average all the values in the work to a middle gray value. This means darker, lower-key artworks frequently come out to light and lighter, higher-key artworks frequently come out to dark!

Lens

A useful lens for our discussion means a useful focal length. Most DSL cameras come with a zoom lens. Since contemporary artists use the camera for all aspects of making art (making idea sketches, documenting their process, documenting their completed work) I believe thestandard 28 -105 mm lens is the most useful. These lenses almost always include some version of a macro (close-up) capability. You will find that a focal length between 80 and 105 mm will give you the best results for documenting your art works. The 80 and 105 mm range minimums optical distortions that will be recorded in the digital file. It is important to remember that almost all digital images have some distortion and you can use Lightroom/Photoshop utilities to remove these. artifacts. Also you will find that the area of your background paper can be significantly reduced by using longer than normal focal lengths. Anything that you can do to reduce the scale and cost of your equipment will become a asset to your primary mission making your art.

Tripod

A tripod is essential to the process, even to the 3D artist. Remember, this is a formal process and every detail matters. Tripods allow you to refine your view, bracket the exposures of the same view. A good tripod should be of medium weight. It should have a fully articulating head (front to back, side to side and panning adjustments).

18% Gray Card and Color Separation Scale

Camera meters are "tuned" to the 18% gray card. If you calculate your exposure to an 18% gray card, all colors and values in the scene relatively lighter or darker than middle gray will automatically fall into their proper position on the tonal scale and your digital files will be remarkably true to the original. Add the Color Separation Scale and you have the ingredients for precise color reproduction of your art works at a future date when your work may be included in a catalog or poster. The color separation scale gives the graphic designer/pre-press technician a universally recognized, standardized reference of values and colors to use when scanning your images to be printed later in four colors of ink (CMYK), or RGB for a Web Site.

Seamless/Neutral Color Background

A seamless neutral colored background is useful because it provides a clean zone, isolating the art work from its surrounding and not attracting attention to itself. This is particularly true for 3D artworks. The best colors are bright white, middle gray or jet black. Spectral colors can introduce color distortions through reflection. Your material should provide at lest 12 inches on each side of the art work.

Lighting Equipment *(If you choose artificial light)*
Selecting lighting equipment is a discussion to itself and I will hold it to its own chapter. *See page 10-11*

Tape Measure
A 12' tape measure is very useful to the process. You will need it for set-up and measuring the size of your art works for documentation.

2' Carpenter's Level
Some people find levels useful to the process, both for leveling the art work and the camera. A good tripod head usually has a bubble level built into it, but I like to use a separate level for setting up and checking my work area. Using a level to hang your 2D art works on the wall will add ease and accuracy to the process as you become more involved and your head filled with other details. Starting our squarely is a good idea for beginning a new process.

Map Pins/Tape
Map pins and Tape are useful fastening materials for holding backgrounds and art works in position.

Hammer and Nails
A hammer and small nails are necessary to provide sturdy support for 2D art works while on the wall. A #6 nail is usually sturdy enough to do the job and not destroy the wall. I personally use dry wall screws and a electric screw gun. These screws can be carefully applied and reversed without any real damage to the wall. A piece of masking tape placed on the wall before a nail or screw is applied will further protect the finish on the wall.

Medium Large Table *(For small to medium scale 3D works)*
A table that can be backed up against the wall is useful for photographing small and medium scale art works. It allows you to level your camera properly and formally present your art works. Photographing small and medium works on the floor is difficult and almost always introduces unwanted distortions into the photograph.

Magnetic Easle
A magnetic easle is an optimal investment for documenting 2 D artworks. It can live on the wall (usually behind something else) and because of its location can introduce some consistency into the documentation portion of yoru workflow from creation to documentation and publication. I use a set of rare earth magnets that range from 1 — 5 pounds rating.

The Digital Camera?

The digital camera is a n optimal tool for documenting artworks and creating your portfolio? You should use 8 mega pixel camera or greater to produce both screen based presentations and high quality presentation prints up to 16" X 20" aspect ratio. I prefer to start with 12 mega pixels so that I can provide a printer with a usable digital file if necessary or fulfill any other request that frequeently accompany attempts to promote your work including large-scale imagery for posters/banners. Large Memory crds 32 - 64 GB cards are optimal, especially for larger cameras.

CAMERA SETTINGS

Accurate camera settings cannot be stressed enough in this process. The quality of the capture is esential to produce image files that will fulfill the range of uses you might be called upon to serve. There are 4 basic settings that need to be monitored on your camera.

***Format* (Image File Settings)**

For Optimal results, use camera RAW format / Jpeg settings. These settings are usually available in several levels of pixel resolution. Use the highest settings so you will not have any regrets later.

Color Space

Adobe RGB is ptimal for capture. Adober RGB is a print standard. Later you may need to use sRGB to conform to the web standard. Conversion is easy in most image editing software applications.

ISO

ISO relates to the camera sensitivty range. Use 100 - 400. Do not use Automatic setttings. The results are usally a dissapointing.

White Balance

The beauty of Camera RAW is that the light balance can be easily adjusted during post-exposure editng. This is not the case with jpeg files. As a precaution, and a strategy to preserve my jpeg files, I adjust the light source on my camera to matach or approximate the color balance of the light source. Later, I will introduce other exposure aids to insure color reproduction accuracy.

Image Editing Software

Adobe Photoshop and Lightroom™ are the standard software applications used to edit images. Combined with the Color Separation Scale the color fidelity of your final images will be astonishingly accurate.
The camera RAW editor has many features that can "automate" the accurate reproduction of your images including the color balance and lens corrrection (image distortion).

Getting Organized

Getting organized to make slides of your work is the most important thing you can do to avoid problems. Most professional artists either have a place in their studio where they can reliably produce slides or a contact (usually a photographer) that will produce the slides for them in another location. Some artists who work in small studios, or no studio at all, rent space either from a local studio darkroom facility or use a community college photography studio.Artists who do this themeselves simply convert a wall in the garage or living room. At any rate getting prepared precedes fulfilling your intent. Here are the ABC's of what I do, with some elaborations for the beginner:

Allow yourself plenty of time

Plan to set aside four to six hours for your first attempt at making slides of your art works. Remember, quality takes time. As you get better at this you will be able to integrate the process into your routine more seamlessly and less preparation and production time will be required.

Inventory and check out your equipment ahead of time

Inventory your equipment and purchase what you need ahead of time. The simplist things can lead to a disastorous session -- low camera batteries for example! Remember, many of the things you need are not common consumer products and they cannot always be purchased with a short ride across town. You may have to order these things or travel out of town to acquire the basics found in my recommendations.

Plan for a location to complete the work

Plan and prepare a work area to copy your art works. If you choose to use artificial light sources you will need a room where reliable electricity is close by and the ambient light levels can be lowered to near dark for the most accurate and repeatable results. If you choose to work outside you will need to plan a day with relatively consistent light and cooperative weather. Good luck on this one. Summer time is the best time to work out of doors, but not the most convenient for the working artist with varying deadlines, lets say February.

Sort and count your art works and plan your needs

Gather and sort all of your art works by size. I highly recommend that you photograph your work without frames and matts, and *especially glass*. Pre-sorting your works from large to small will always make the session go smoother. I will explain this later in the set up and lighting discussion. The complications that arise while photographing art works with frames and glass make the job more difficult, especially for a novice. If your work is already framed and/or glassed, set this group aside to be handled separately. You can expect a slow-down in your session if you are working with framed and glassed works. Following this procedure will save you generous amounts of time and energy and eliminate countless opportunities to make mistakes while resetting your camera. Trust me on this one!

Choosing and Matching Light Source to Camera Settings

I have been involved in judging exhibitions and interviewing candidates for jobs for a long time now. There is no greater distraction or disappointment then viewing images that display obvious color casts. These "color distortions" are most frequently introduced by the light source used to illuminate the art works. The most commonly seen color casts are: orange, blue and green. These colors are caused by mismatching the camera settings to with the lighting source used to illuminate the artworks.

Why do color casts occur?

Simply stated, color shifts in the image occur because the camera sensor settings control what colors the sensor "sees" and records. If the spectrum of the lighting source is greater or lesser than the sensor is programed, color shifts occur. Using "automatic" is not an optimal approach but can be used if you get confused about what light sources you are using in your session. Camera Raw can rescue you.

Strobe Light Systems

Strobe light systems are the most consistent light sources available for achieving true color and have corresonding settings in your camera white balance settings. Strobe Light systems can be cumbersome and expensive. Generally, this is not a practical investment for non-photographers. Kits can be rented from a local camera store for a reasonable price. If you like the results, they can be purchased. There are alternatives to the kits as well. You can purchase small "strobe/slave" combination bulbs that screw into a regular light bulb socket.

Using the Flash on the Camera

I am frequently asked "can I use the flash built into my camera?" The answer is "sometimes, but usually with very limited success." In the end, the answer is usually No. Flash on camera techniques usually produce unappealing results or in some cases make the art work less than desirable to view because of tonal and spatial distortions. The greatest drawback to photographing with the flash on the camera is the specular reflections produced by the light bouncing directly back to the camera from glossy or reflective surfaces. This phenomenon is unappealing and usually renders the final image unusable.

Natural Light or Photographing out of Doors

The thing to remember is that camera sensors are "engineered" in a laboratory for ideal balance of natural light or "daylight." The problem is, there are all different qualities of daylight and any number of factors that influence it in any one environment and at any one moment of the day. Cameras "see" things that we rarely see without training. Because the sun moves rather quickly across the sky, and the atmosphere can change the color of the light, you have to be pretty familiar with your equipment and technique to achieve consistent results. The other option that allows for greater consistency is to use "north light." While north light is more even over the course of the day, it also tends to be on the cool (blue) side. This cool cast will distort the colors of your art work in the final image, giving them a definite blue cast. This can be overcome by setting your Wight Balce to Open Shade! As you can see a knowledge of photography can be very useful and underscores the qualifications that a professional photographer brings to her/his job.

Quartz Halogen Light (tungsten)

Quartz Halogen lighting systems are the easiest for artists to use because all you do is set them up and turn them on. The most common error associated with this system is matching the camera's white balance to the light source. If you use the quartz halogen system you will need to use a "Tungsten settings". This will tell the camera sensor to compensate for the deficiency of of blue and gree light in the spectrum emitted by the light source.

Experience says . . .

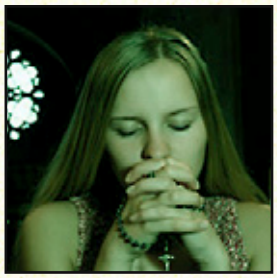
When it comes to photographing your art works artificial light is the best way to go. Given artists'/designers schedules and the unpredictability of weather, an artificial light source is all around the most reliable system, day or night spring, summer, fall or winter. Strobe lights are the most expensive investment but with some practice the all around most reliable and cheapest to operate. Quartz Halogen systems are the cheapest artificial light system that you can purchase and the easiest to use. The cost of film and the availability of the film are subject to scarcity and the inflation that goes with it! There are some ways to work around this but I have seen limited success among unskilled photographers with limited equipment.

Lighting for Digital Cameras

fig. 1a
Detail from color image exposed with day light wiite balace and natural light as a light source

fig 1b
Detail from color image exposed with day light white balance setting and tungsten light as a light source

fig 1c
Detail from color image exposed with day light white balance and florescent light as a light source



Lighting for digital cameras makes your job relatively easy. As many artists know, most digital cameras have a "White Balance" feature that allows them to adjust the camera for at least five typical types of ambient light sources: Daylight, Tungsten, Florescent and open shade and overcast light. Generally speaking, you will find these settings give you astonishing results. *Some of the more sophisticated cameras enable you to read the color of the ambient light reflecting from a bright white sheet of paper and create a setting for the available light source -- whatever the mix may be*. Once again, this is another huge asset for working with a digital camera to document and represent your art work.

I believe you will find that owning a modest set of quart-halogen lights will be the most successful approach to copying art work with a digital camera. Certainly it is the most direct. With halogen lights you simply set the white balance to tungsten and work or if you desire, make a specific setting for your lights. You will not have to worry about synchronizing your lights to a strobe or accurately measuring, or calibrating, for the proper exposure settings.

Photographing 2D Works of Art

The procedure and routine for making slides of 2D works of art can be established and mastered easily if you got organized. *See pg.9* If your equipment is ready to go, work area is established and art works sorted you can begin to set up. Since scale of art works determine the amount of space you need to photograph the size of your work area will vary. I will set up an area that is large enough to copy a 4' X 5' painting. This will require right around 16' X 16' (256 square feet) on the floor in front of a blank wall. Make sure you have electricity close by. If you do not, you will need a good quality extension cord that can accommodate more than one plug.

Setting up your Background

The first step is to establish your "target area" with your neutral background well secured to the wall. I like to use map pins for securing the background. I recommend setting the center line for the background at 48" from the floor. *Fig.2*

fig! 2 Tack your paper or cloth background to the wall with map pins. Set the center line at 48".

Different artists use different types of background materials . The most commonly used is paper. Back drop paper can be obtained at a photography retail store. This material comes in long rolls and in a few different widths. Paper can be difficult to work with by yourself, largely because it tears very easily while handling it. Paper also wrinkles and stains very easily. Usually one sheet is good for one session. For this reason I prefer a roll of cloth. I have used the same white, neutral gray and black polyester table cloths for twenty years! When I am finished with them I roll them around a cardboard tube and they are ready to go again when I need them -- wrinkle free. Cloth is also cheaper in the long run.

Placing Your Nails to Hold the Art Work

If your art works vary in size a great deal then you may find yourself setting the nails more than once. I have found that setting the nail (or drywall screw) height at 72" is about ideal for a group of larger works, 64" for smaller works. All I have to do is raise and lower the center post of the tripod to reestablish the center line between camera and art work. *Fig.3* For this example using a I will set 2 nails (screws) approximately 10" on each side of the center line. I recommend using a level to set these two screws. Two level nails at this distance is much more effective at holding the art work level while photographing. Now, set your first art work (the larger) on these nails and check the level again.

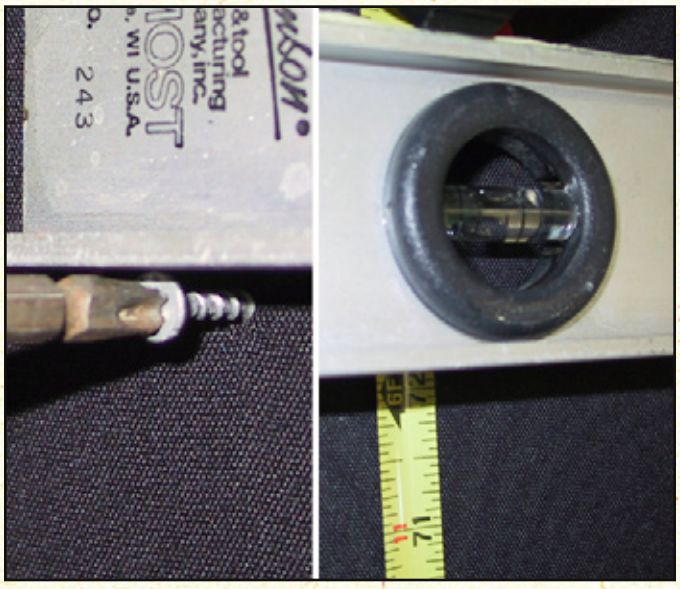


fig. 3 Use a level to set two nails or screws about 20" apart ,72" from the floor.

Don't Worry About Format

When Photographing 2D works don't get caught up in weather it is a horizontal or a vertical format. *I always photograph everything as a horizontal, even if the original is a vertical image*. Remember, the slide can be turned later! The amount of time and energy you save by avoiding changing your camera height and orientation will help to smooth out the process and avoid mistakes.

Setting your lights

I recommend setting the center line for the lighting fixtures (the light bulb) at the same height as the center line of your background, approximately 48" - 54" from the floor. After you have set the height of the light bulb make certain that the head of the fixture is at 90 degrees from the floor, not tilted slightly up or slightly down. This is more important than you think. This is where you begin to introduce uneven lighting to the surface of the art work. After setting the angle of the fixture head and bulb, move the lighting fixtures back from the wall 8' - 10' at a 45 degree angle. *Fig 4*

Setting up your camera

Begin setting up your camera by mounting it on a tripod. Set the legs of the tripod wide enough to bring the center of the camera lens within the 48" - 54" range to match the background and lighting fixtures. After your tripod legs are locked firmly at this height level the head of the tripod both front to back and side to side. *Fig.5* This is very important! Leveling the camera on the tripod should bring the back of the camera absolutely parallel to the wall that is holding the art works and it should render any geometric shapes (squares and rectangles) perfectly square without any "keystoning affect" in the viewfinder. *Fig.6*

Choose your lens wisely

I prefer lenses with focal lengths that range between 85mm - 105 mm for making slides of art works. I like this range because they produce a narrower angle of view and I achieve a little spatial compression from the lens that makes the slides look better to my eye i.e. less distortion. *Fig.7* I used to use an 85mm fixed focal length lens to do all of this kind of work, now I use my 55 mm macro or 28-105mm zoom lens. I usually use the lingest focal length available on my lens. In both cases, macro or long focal length, I want to minimize optical distortions; the zoom allows me to do some quick fine tuning without resetting the distance of the camera as often. Another time/energy saver.

Establish your camera exposures now using an 18% gray card and save time later

Now that you have your lights in place, camera on the tripod and lens selected, take this opportunity to simplify the process and save yourself some valuable time. Place the largest work that you intend to photograph on the wall and turn on your lights. Adjust the illumination evenly over the surface of the art work then remove it from the wall. Place your 18% Gray Card near the center point of the wall where you will be photographing. *Fig.8* Carefully move your camera close enough to the gray card to fill the frame (the image does not have to be entirely focused for this process to work) and *make an exposure reading in manual mode*. I recommend that you set your lens aperture to ***f:***8. This aperture setting will give you a good balance of image sharpness and manageable exposure times. Reset your shutter speed control until you achieve a balanced exposure setting. Make a note of these settings on a separate sheet of paper and keep them close at hand. *Fig.9* If you have carefully completed this step you will use this setting for the remainder of the session -- no matter how much smaller the art works or how far the camera is from the art works!

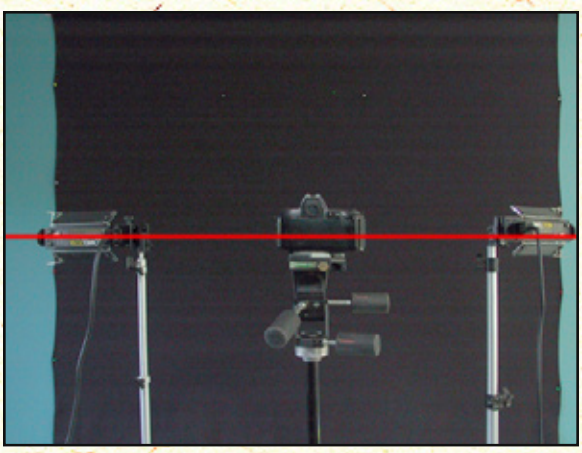


fig.4 Set the height of your lights and camera at the center line of your background. Fine adjustments to the camera can be made later.

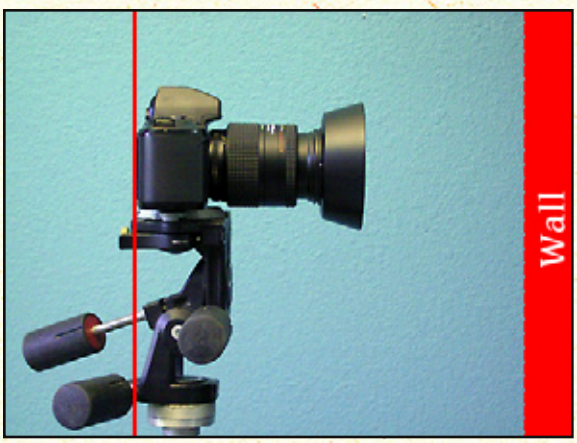


fig.5 With your camera mounted to the tripod, set the tripod's head adjustments so that the back of the camera is parallel to the wall. This will eliminate the keystone affect. see fig. 12

fig.7 Select a lens that will minimize distortion. this can be a macro lens or a zoom lens used at 85 mm or longer.

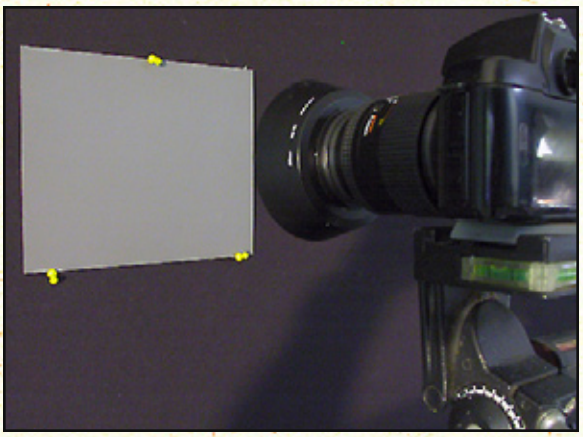


fig.8 Light your taget area evenly and place an 18% gray card in the center of the frame. Move your camera close and take an exposure reading. This exposure will be used for the remainder of the session.

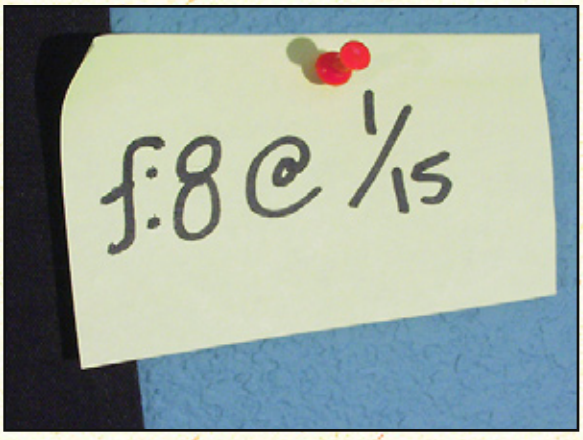


fig.9 Make a note of your exposure settings and mount in on the wall. Check your camera settings often to assure yourself that you have not accidently changed your settings. This can save you a lot of frustration later.

fig.6 Squaring the camera to your target area is one of the most critical steps in making accurate slides of your art work. If it is not square you create the "keystone effect" seen in this illustration.

Using color separation guides

Using color references in your slides make them much more useful in the routine activities of an artists career-- especially media, publication and promotional related activities. One of the ways that you can assure that your work is well reproduced in printed publications is to include a reference guide to assist the graphic designer and pre-press specialist to achieve accuracy when designing and keying colors or reproducing your image in a gray scale, four color environment or web based environment. The most reliable method used to assure color accuracy involves the addition of a color separation scale to the target area when you photograph. *fig.10* These scales can be purchased from photographic retail stores or ordered from photographic supply houses. The graphic designer and or pre-press specialist will use the localized standard reference colors and values found on this scale to set the global color balance of the images. The color separation scale is an part of an internationally recognized standard system (ISO). Any designer or pre-press specialist will know what do with the scale when they encounter it in an image.

I recommend that you include the separation scale and/or gray scale at the edge of your image. *fig.11* I usually produce two copies of this slide that will be filed in my master slide portfolio. I then make additional copies of the slide without the reference for other purposes.

Reconciling aspect ratios

Another decision that needs to be made on a routine basis is reconciling aspect ratios. An aspect ratio is the ratio between height and width. You will find yourself reconciling the differences between the aspect ratios of your art work and the aspect ratio of the 35mm camera's viewfinder. If you are using a neutral colored background this is a relatively easy task. Simply place the frame of your art work into the frame of the viewfinder. Move the camera laterally, parallel to the wall to avoid keystoning, until you have a well proportioned border of neutral color. Many times this extra border becomes the ideal place for the color separation scale to be placed. The essential element here is to achieve a satisfying background and avoid having to use slide masking tape later! The background functions like a mask.

Another technique for reconciling the different aspect ratios in the viewfinder is (or creating a masking affect) is the use of very large cropping squares made of a dark material. Although I rarely use them, they can be made from flocked poster board. I think black is the very best. Other kinds of materials can be used but they tend to draw attention to themselves, they look like a set of squares dropped into the scene to mask out the background.

I have included some examples of aspect ratios reconciled to a 35mm format. *fig.12* You can use them as points of departure.

fig 10 Color Separation Guides are available through photographic retailers.

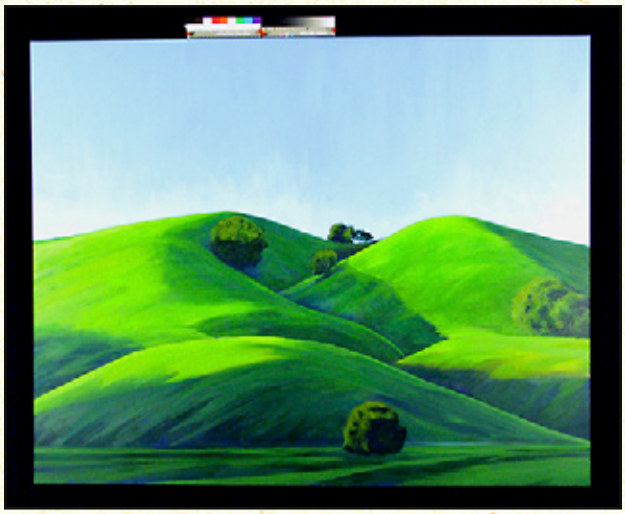
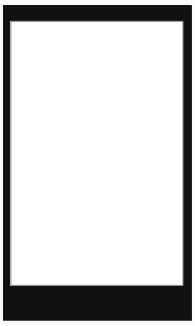


fig.11 Adding Color Separation Guide along the edge of your art work while photographing will greatly enhance the future use of your slide for publication purposes.

Fig.12 Six examples of adjusting the aspect ratio of your art work to fit the aspectrRatio of the 35 mm viewfinder.

48” X 48”
1:1

48” X 60”
1: 1.25



48” X 72”
1:1.50

48” X 84”
1: 1.75

36” X 96”
1:2.6

48” X 144”
1:3

Photographing 3D works of Art

Photographing 3D art works involves similar goals and techniques used to photograph 2D art works. Your job is to represent the object accurately and minimize any distortions or illusions that will obscure the scale or essential qualities of the object. There are two primary differences between photographing 2d and 3d art works. The first involves the *objective use of lighting to reveal the essential qualities of a 3D object*: volume, mass, texture and scale. The second principle is *providing essential variations on a point of view to fully describe a 3D object using a 2D medium*. Again, the study of basic commercial illustration can often be an effective guide to successfully photographing your own art works.

Using Artificial Light to Model Form

Theoretically, and sometimes actually, the professional photographer uses two lights to model form. We call these the *Main Light* and the *Fill Light*. The use of these two lights are based upon natural light in the world. The *main light* emulates the sun and the *fill light* emulates the reflected light from the immediate environment and sky. The *main light* is used to define the direction of the light, displaying a highlight and casting the dominate shadows. The angle and direction of the *main light* relative to the camera axis is used to accent the organic or geometric qualities of the object and can heighten the visual rendering of the surface texture(s)). The *fill light* is used to smooth the transitions between the highlights and shadows and balance the contrast, what photographers regard as the lighting ratio. When making slides of your art works it is a good idea not to let the main light become more than four times brighter than your fill light. This will produce a versatile set of slides, characterized by excellent contrast for presentations, and accurate, printable reproductions of your art work for publicity and publication.

Realistically, most photographers light objects in a studio environment with a single *main light*, and a large sheet of reflective material to boost or *fill* the shadows with reflected light. *fig.13* When you use more than one artificial light to light your art work you run the risk of producing multiple and confusing shadows. Many amateur photographers use multiple lights because they want more light for shorter exposures. They end up sacrificing the quality of the slides in the end. Since you are using a tripod longer exposures really are not an issue. You simply slow down your shutter speed, lengthen your exposure time. Using one light and a reflector card is a classic case of less is more. I advise you to use a single light and a large sheet of white card board to manage the light produced by a single light bulb. The affect will be much more naturalistic and your job easier. *fig.14*

The most difficult art works to photograph are glossy, highly reflective surfaces, glass and ceramics among these. The reflections (specularity) of the object frequently makes the image difficult to render in a pleasing manner. While this is a subject far beyond the scope of this short quide, there are many techniques that can be used to minimize these distracting qualities that show up in the final slides-- frequently affects that you did not even see when you made the slide. Several lighting manuals are available at photography retail stores to help you eliminate or master these distracting phenomena.

Lighting 3D art works using a seamless backdrop system

The seamless backdrop system common to most commercial illustration studios is easy to construct and a very effective means to making straight-forward presentations of your 3D art works. *fig.13* These systems are easy to construct using a small table backed up against a wall. Using a roll of photographic backdrop paper or a wrinkle-free cloth you can pin the paper or cloth to the wall and “sweep” it down across the table surface. From the camera position the background does not show any indication of a “horizon.” If you isolate your art work and concentrate your lighting on the object farther forward on the table, away from the background, you

fig 13 Using a single light and a reflector card for controlling contrast is very effective. It also minimizes the amount of equipment needed to produce excellent results.

Photographing 3D objects can be more tedious because each piece usually needs individual attention. Unlike paintings, drawings and graphics that are flat and relatively uniform across the surface, 3D works need to be studied for their essential "profile" and commentary viewpoints. Some pre-sorting is helpful, especially by size, can be helpful.

Providing Multiple View Points on an Art Work

Providing multiple view points for a 3D object is very important to conveying the particulars of your art work. Remember, you are using a two dimensional medium to describe a Three dimensional object. At the very least I suppose a "front", "side" and top view would be appropriate to help convey a more holistic understanding of an art work. Conventionally, many artists include two or three views of an object in addition to at least one "detail" image that brings the viewer closer to what the artist would like them to know about the work of art. *Fig.14*

Remember, you know the work of art better than any one else. It is your job as the artist to guide us to a greater knowledge of the work.

Artist's Name
Title of Art Work (detail)

Date
Medium
Dimensions (*height x width x depth*)

fig.15 Providing multiple viewpoints of 3D work is advisable. Select key views that describe the dimensionality of the work, the range of materials and details that help reveal the surface qualities . Use details (bottom right) to heighten the information about your artisanship and craftsmanship.

Modeling 3D Form and Controlling Image Contrast with a Reflector Card

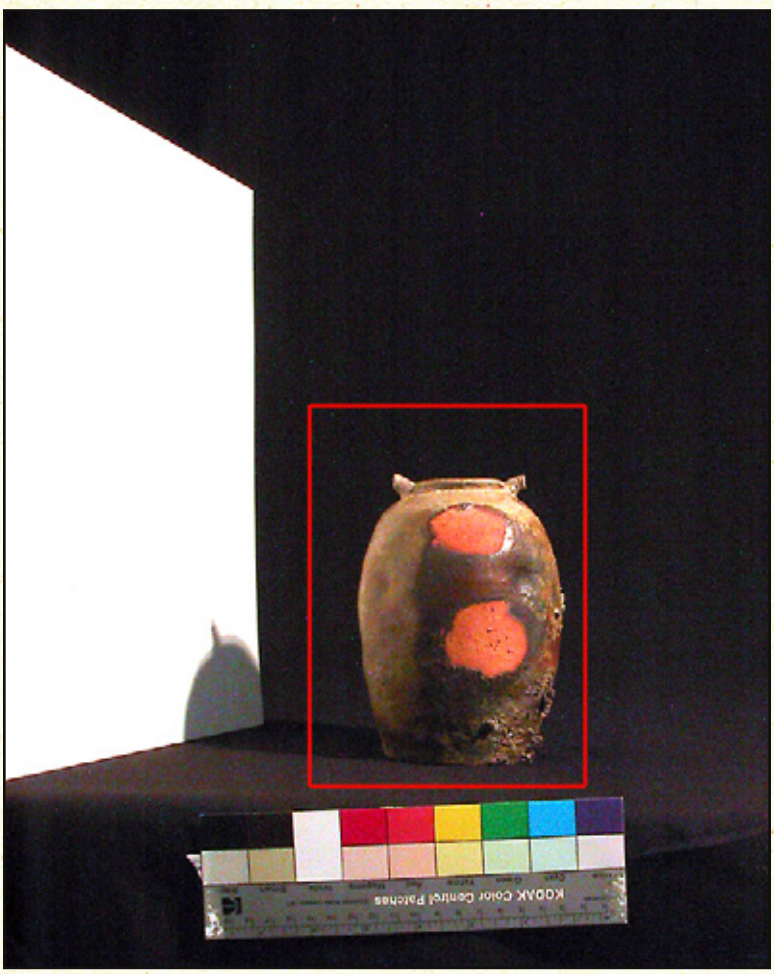


fig. 14 Most photographers use a single light and a reflector card to model form (top right).

The same card can be used to control the image contrast. Using a single light without a reflector card the shadow detail is frequently darker (16X) than desirable or useable later in a reproduction of your art work (bottom left). By carefully placing the card's angle and distance from your art work you can both model the form and control the relative lightness or darkness of the shadow areas. Adjusting the shadows to about 4x's darker (bottom right) than the highlight side of the form produces a lighting ratio that is both easy for film to record and a slide that will be easier for jurors, graphic designers and pre-press specialist to use at a later date.

Appendix

Accessories

The following accessories can be useful to the process of making slides. They can be purchased at any of your local photographic retailers. I have provided Kodak Catalog numbers to expedite the purchase of these valuable tools.

Kodak Color Separation Guide and Gray Scale
CAT 152 7654

Kodak Neutral Gray Card
CAT 152 2779

Preparing A Slide Portfolio
A Guide for the Working Artist

Written and Designed
by
Daniel Kasser, Professor of Art
University of the Pacific, Stockton, CA
for the
Art in Public Places Program, City of Stockton