

4-Week Short Course: Introduction to Product Photography With Instructor John Siskin

All photos and text © John Siskin, all rights reserved worldwide. No form of reproduction or usage - including copying, altering, or saving of digital image and text files - is permitted without the express written permission of John Siskin

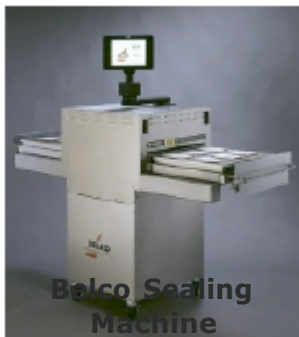
Lesson #3: Reflective Products

So this is a nightmare shot. When you have a reflective subject, be it a Delorean Motorcar or Bob the Bowling Ball, you have to light what the subject sees rather than the subject. If I had used an umbrella to light the side of this thing (it is for sterilizing instruments for surgery) the side would have acted as a mirror reflecting the things in the room the light illuminated.



All rights reserved

This means that in a black room you could light the product and still see no light on the product. The primary light then must create this controlled reflection. In this case I made a wall out of a couple of pieces of foam core I had taped together. Then I used a strobe, one of my Norman Studio Strobes, to illuminate the foam core from a small light stand on the floor. This light had the full 2000 watt-seconds. This gives me not only lighting on the side of the machine, but also a gradation across the metal surface. Of course if I change my camera position slightly the part of the room the stainless steel sees changes.



This is a very difficult machine to shoot because of its size and the fact that it is



Belco Sealing Machine Diagram

This is a very difficult machine to shoot because of its size and the fact that it is so reflective. Careful

so reflective. Careful lighting is required.
© **John Siskin**
All rights reserved

lighting is required.
© **John Siskin**
All rights reserved

This shot was made with a 4X5 Toyo camera so it required a lot of light. I could have done this with a digital system, it is an all strobe shot. Whenever you have a triangular patten to your subject, like the way bowling pins are laid, out perspective movements on the camera will not solve your problem.

You need the depth of field from a small aperture, around f32 in this case, if I had used digital I could have used a larger stop since I would be using a smaller capture area. I was able to use the camera to maintain the perspective of the subject. Usually I arrange my subject camera relationship first. There are a couple of reasons for this **1)** I do not put a light where the camera belongs. **2)** In a subject like this any change in the relationship between the camera and the lens changes the lighting.

The lights on either side of the subject provide a similar function to the foam core panel. Since these areas are not the large flat area of the front we do not need anything as smooth as the foam core, thus I was able to use umbrellas. I spread about 3000 watt-second of strobe power between these three lights and the two lights I placed overhead to light the background and the top of the machine. The background light was placed on a rail system I have in the studio (I'll explain building this soon). The light for the top of the machine was on a boom. I did it this way because the boom is easier to move and the light on the boom was more important to place critically.

Booms are long arms balanced with weights on rolling stands; they are called booms because that is the sound they make when they fall over. You need to be careful with booms and keep them in place with sandbags when they are in position.



Boom

© **John Siskin**
All rights reserved

I can talk about this quickly but it took forever to do. Sometimes a move of about 3 inches in a light made a large change in the subject. The most

important principal in this image is that you light what the subject sees, rather than lighting the subject. This applies to any reflective subject; this is why people use a tent, a white smooth enclosure, to light jewelry or glassware. Really this is a big tent, if my subject had been rounder I would have had to create more of a literal tent with my lighting.

Jewelry & Shiny Product

The principal is the same for most jewelry. This is why many people manufacture what are called tents, basically a translucent box with a place for the lens. The box is lit from the outside. If you are going to do a lot of this kind of product get one of these, you'll need it. The problem is that tents produce very flat light. Because of this I more often use what I call a lean-to.



Lean-To Lighting
© John Siskin
All rights reserved

This gives me two walls and a ceiling. It is very easy to set-up; I use a double clip to hold the panels together at the top. You could easily use gaffers' tape. I can add a back wall, by bringing in another panel. The simple two-panel set-up did this shot:

This works pretty well for metal, particularly when you throw in the back wall. If you look closely you can see how the two panels worked with the pearls in this shot, kind of reminds me of Bob. If you have faceted stones this does not work as well, as you'll notice in the blue stone in this piece. The stones become a little too flat. If the shot is all about the stones I will give up on the lean-to and try various small size softboxes. I will be checking the light source at different distances to try to get the right sparkle in the stone.



2 Panel Lighting
© John Siskin
All rights reserved

However with this piece I just wanted to add some harsh light to the diffused light that was working pretty well. So what I did was to add a Norman 200B to the shot above, perhaps you can see it in the set-up shot. I set this light on just 50 watt-seconds, while the power pack lights were on 500 watt-seconds each. This just added a few little harsh highlights to the shot, but I think it has a good effect on the diamond like stones as well as the blue stones.



2 Panel + 200B
© **John Siskin**
All rights reserved

You could also use a small quartz bulb; this would put a warmer sparkle back into the stones. One more thing I have done to add sparkle is to use the slide projector to put sparkle back into a stone. The projector allows me to place a very small spot very carefully. I did this in opal shot below.

Both the opal and the diamond would be dead in this shot without the Kodak Slide Projector.



Opal and Diamond Pendant
on Quartz
© **John Siskin**
All rights reserved

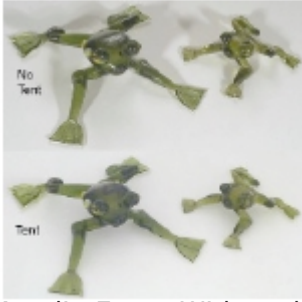
Tents

Tents go one step further, but they also go one step flatter. There are several different styles of tent. Basically the idea is to get a directionless shadowless light all around the product and still get the lens where it can take the picture. In this shot you can see that 3 lights surround the tent and that each light is bounced out of an umbrella. This makes the light even smother.

This is a pretty large tent, which means that you have more area for product. The real problem is that the images are very flat, less information about texture and reflectivity. Sometimes a metal will look like a ceramic, because there are no greys or blacks. This shot is a before and after, the product looks better before, the background looks better after.



Light Tent for Product
© **John Siskin**
All rights reserved



Acrylic Frogs With and Without Tent

© John Siskin

All rights reserved

I wanted to include links to ca couple of tents I don't own, I'm sure they work well. And, of course, you can get this stuff at all the regular places: Samy's B&H and Calumet. Here are some tents: [Tent One](#), [Tent Two](#) and [Tent Three](#). Of course there are more. You can probably tell that tents are not my favorite lighting tools, but when you really need a tent nothing else will do.

What Is A Studio?

Basically a studio is a place where the photographer has control of what happens with the light. I need to be sure that extraneous sources of light are under control, such sources may be daylight from a window or light sources that overpower my strobes or quartz lights. Another problem is reflections, you would prefer not to see a TV set reflected in your models eye.

One of the ways I can control both these problems is by making walls. I usually do this with seamless paper or with light panels.



Sax with seamless

© John Siskin

All rights reserved



Studio Set-Up

© John Siskin

All rights reserved

The panels are one of my basic studio tools, they let me diffuse light, bounce light and block light. All this is accomplished by changing the fabric cover of the panel. Usually I would use a black cover, probably Duvateen to kill the reflections; however with the sax shot above I should have used a large white panel, or a roll of seamless. These are easy to set up and put away, so they work well in the temporary studio. I can build a whole room within a room from the

panels.

If you are outfitting a garage as a studio, or making a permanent home studio there is another choice. You can mount rolls of black seamless paper onto the ceiling and bring down the paper as a wall to control reflection. This is

quick and easy, especially if you use a chain drive on your paper roll. Bogen, also called Manfrotto, has a nice chain drive for raising and lowering the seamless.

Even simpler is to buy a roll of black seamless and staple it to your wall. Seamless is available in widths of 4.5, 9 and 12 feet and lengths of 10 meters, 50 meters and 100 meters, those hundred meter rolls are really heavy. Another way to go is to hang brackets and put up a curtain. Of course if you did use white here you could use it as an oversize light panel! Any of these ideas can be adapted to your circumstances to bring your location under control.



Figure 3

© **John Siskin**
All rights reserved

Another concern is the area above the shot. My ceiling is not in very good condition, so I do not bounce off it. If I need an overhead bounce I will either put up a light panel or pull white seamless along the ceiling. I have a set of rails mounted on the ceiling that make either possibility more practical.



Studio Set-Up

© **John Siskin**
All rights reserved

I have mounted two 10ft. poles to the ceiling using all thread and expansion bolts. Then I have two more poles that run between the original ones. This second set of poles moves. I am able to hang lights reflectors and props from these poles, very handy! I admit that this wouldn't work in most living rooms, but it would fit in a garage studio pretty well! Everything should be available from your local Home Depot. This rail system also holds lights. The next photo is a Norman head mounted

on a Bogen Magic Arm.

The Magic Arm is mounted into a super clamp. Of course it is critical to be able to mount backgrounds in the studio. In addition to the brackets shown earlier, there are temporary ways to hold seamless or other backgrounds. It is easier to set up smaller backgrounds; in fact you can hold a small roll of seamless or a light background with two regular light stands and a top made of PVC (just like the top of a light panel, but wider). For bigger backgrounds you can buy a set



Magic Arm on Rail System

© **John Siskin**
All rights reserved

of background stands, but you might be better off with a set of C-Stands.



Figure 5

© **John Siskin**
All rights reserved

C-stands are critical around the studio. They are like light stands on steroids! If you use two C-stands and a couple of extension arms you can easily hold seamless or other background.

You can also use them to hold lights or to hang things in the shot. These are really heavy duty! Another permanent method is to make wall brackets out of 2X4s.

This works well, as you can have several backgrounds set up at once. However the Bogen background rollers will work with the U-brackets and won't work with the wall brackets.

Of course with all these lights you will want to design some extra power outlets into your studio. We usually need extra power to use strobes or quartz equipment. Also it is important to keep the power cords from going all over the studio; you don't want anyone to trip!

I have seen a lot of home studios and I have identified one major problem: home studios become home storage areas. Of course it starts out with storing photographic stuff and suddenly everything that has no other place is in the studio, take a look at this studio.

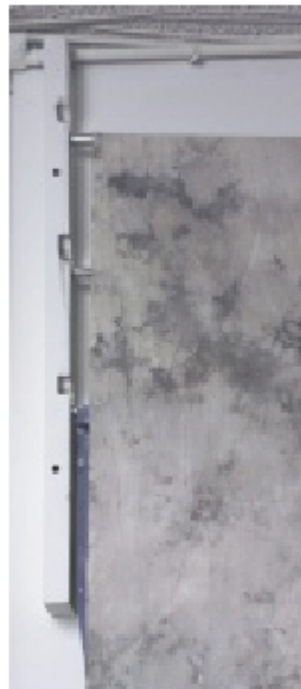


Figure 6

© **John Siskin**
All rights reserved



Paula's Studio #1
© **John Siskin**

This kills your ability to do work in the studio. Actually storage is a problem every studio faces. I have a large number of things I keep as props, as well as an 8 X 10 inch enlarger. My studio is in a commercial space; I have almost as much space dedicated to storage as I do to shooting. Of course it's important that your clients are not able to see your mess! The alternative

All rights reserved
energy trap.

is to clean out the studio every time
you want to use it. This would be an

The studio in this next shot is very space efficient.

This is a smaller studio space than the garage, but maybe because of this a great deal of thought has been put into storage. The thing I like is the stand storage along the sidewall. This is a great use of space, but it is even better because of the curtain that covers all of this storage. The curtain is placed here so that the gear on the sidewall does not create a reflection issue. Another thing you want to notice in this shot of the sidewall is the trashcan. It's not a trashcan at all but umbrella storage. I use trashcans in my studio also. I use one for umbrellas and light panels and another for light stands. Trashcans are the best light stand storage I have seen. I am adding a picture of the back wall, because you will want to note that it is also devoted to storage, this is a very efficient little studio!



Tom's Studio, Overall

© **John Siskin**

All rights reserved

Something I like to have in a studio is a rolling cart filled with supplies. I can put my laptop on top of cart, or film holders and a loupe for the view camera. You can see a cart in the previous picture and you can see my cart in the next picture.



Figure 12

© **John Siskin**

All rights reserved

Underneath I have such things as clay, cleaning products, reflectors and all those little things that are often critical to a shoot. I really like to use my digital camera tethered to the computer, this is a great way to keep the computer close to the shoot.

Of course the most important thing is to be able to manipulate light. There are a huge number of tools available to do this in the studio, but there are just a few that I use most of the time: umbrellas, softboxes and

light panels.

I use light panels all the time, not always for lighting. As I mentioned at the beginning of this article I use them to

block light also.

Since I use so many of them it's a good idea to build them myself. I save a lot of money that way.



Figure 15

© **John Siskin**
All rights reserved

Your Assignment: Shiny Objects

Shoot a shiny metal object with your lights with and without diffusers, play with this long enough to get a feel for how the tools work.

If you'd like me to critique your assignment you can arrange that by paying \$25 on my website. Please visit

www.siskinphoto.com/workshop.php . I suppose you could also make a donation at the site.

I hope you find this class useful.

Thanks!

Ps. There's a lot of stuff at my blog about setting up my new studio in Indianapolis. You might want to check out: <http://siskinphoto.com/blog/>

All photos and text © John Siskin, all rights reserved worldwide. No form of reproduction or usage - including copying, altering, or saving of digital image and text files - is permitted without the express written permission of John Siskin