How to photograph really glossy woodturning
By John Lucas

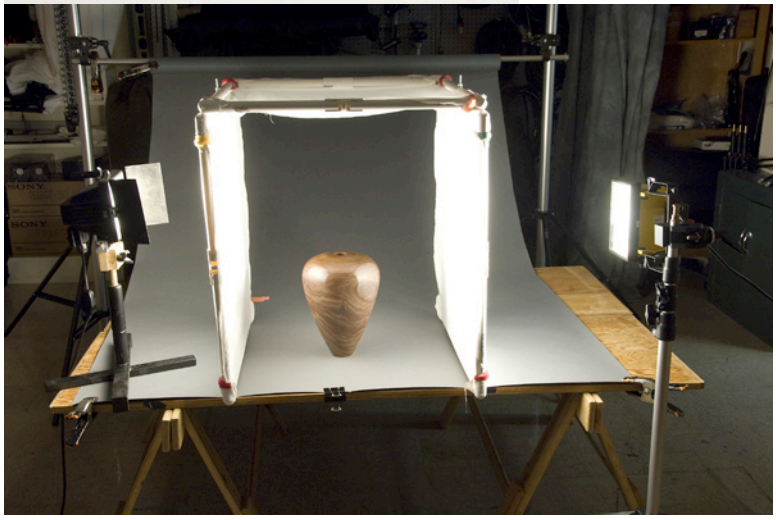
More woodturners are experimenting with very high gloss finishes. These can be problematic when trying to photograph them because they reflect the light sources and everything else they "see" in the room and on the background. Darker woods show reflections worse than light colored woods. In this article I will try to show a method of shooting work this glossy. My goal was to shoot the work with inexpensive lighting. I will demonstrate one method to achieve this goal. I will also demonstrate a more advanced technique to eliminate one of the highlights but this method almost doubles the cost.

It would be fairly simply to just show you one lighting set up and say, this is how you do it. However all pieces are different and reflect light differently due to shape and type of finish. Therefore I will take you through a problem solving sequence so you can learn to recognize the problems and work with possible solutions. Hopefully this will help you solve problems that exist when the lighting set up I describe doesn't work for your particular style of work.

First we need to talk about the lights. I like to use the Quartz Halogen work lights that you can find just about anywhere. They are inexpensive and often come with a light stand. For this set up I used 2. One 500 watt light and one 250 watt light. It's harder to find the 250 watt light but there is an easy method to reduce the power of the 500 watt light. I'll discuss that later but one way is to simply buy a lower wattage bulb that fits your lamp. It seems that many of the "box" stores are selling these lights with 2 lights on a stand. That will work. Just take one of the lights off and use it on the homemade boom arm. You might have to buy a light stand if you do this. Look on EBAY, they are really cheap there. I like the quartz halogen lights because they last forever (at least it seems that way) and the color temperature stays pretty consistent. You will need to shoot on the tungsten setting on your camera with Quartz lights.

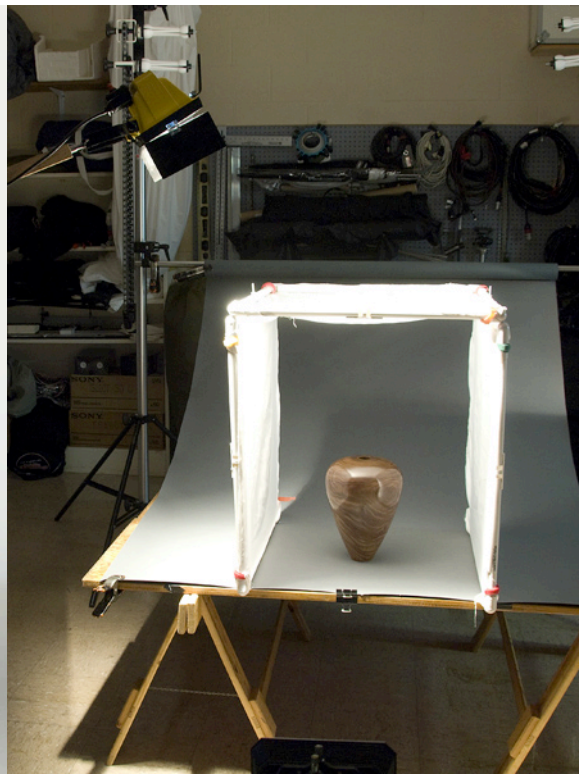
I made a homemade boom arm to help position the top light. The boom arm is also very handy for positioning the lights when you are using the light tent set up that will work well for non glossy subjects.

The first photo was done in a typical photo booth or light tent. Using 2 quartz lights, one on each side. You can easily see the problems. There are reflections of the light tent in the piece.



I used the camera in the auto setting, which slightly overexposed the walnut vessel and made the reflections worse. This was photographed on a Thunder Gray back seamless paper background. I was shooting in a pretty dark room so the piece would not see a reflection of me or the rest of the studio.

The first step is to eliminate one light to reduce the reflections. I used only one light on a boom arm and placed it high and to the left. As you can see in this shot the reflections aren't quite as bad. I underexposed the photo slightly to get the dark walnut closer to the proper color, which also helped the reflections. You can still see the light tent reflection.

Since the light tent is at least part of the problem I removed it and bounced the light off the ceiling. This is similar to a very large light source. This is a little better but I had to increase the exposure time a lot. Because of the long exposure time you can now see the reflection of a window to my right. The highlight on the top is also quite large.


To make the highlight smaller I aimed the light directly at the piece. You can see in this that the highlight is smaller but now there is a very hard shadow on the right side and you can still see the reflection of my window. The foreground is also reflected in the piece and takes away some of the color.

There is a principal of lighting that we photographers use. Small lights make small highlights and harsh shadows, big lights (like the ceiling) make soft shadows and big hightlights. The light tent is an attempt to create a very large light source (like a cloudy day) that has soft light with soft shadows. Unfortunately in the case of really glossy pieces everything you do to the light source shows up reflected in the piece. This is why it looked so bad in the first photo.

This isn't really a bad photo but the shadow is a little obnoxious. If you try to add a second light or a reflector on the right side to soften the shadow you will see it reflected

in the piece. A small light on the right will only produce a small reflection on the piece but will create a second shadow on the left. A large white reflector card on the right would soften the shadow but would show up as a very large blocky reflection on the right side.

To help disguise the shadow I moved the 500 watt light near the camera to cast a shadow behind the piece.

This light cast a shadow up to high so I move the light directly above the camera. This moved the shadow down so that I can try to “hide” it by using a top light.

Then I took a 250 watt light on the boom arm and put it behind the piece. I move the light up and down until it was just bright enough to eliminate the shadow behind the piece. This cast a shadow in front of the piece but it's not as harsh as the earlier photo. It does produce another highlight on top of the piece. It also illuminates the background so it appears lighter. This could be a handy trick for really dark pieces.

At this point the piece is looking pretty good. It has 2 highlights and a fairly strong shadow. What we always try to avoid is the deer in the headlights look with 2 highlight side by side. There is also a reflection of the yellow light stand on the left and my window on the right. In some really glossy pieces the foreground will be reflected and

look similar to the reflections created by the light tent. The shape of the vessel has a lot to do with this.

Lets assume you don't like the shadows and you have a reflection of the foreground in the piece. To solve this I changed to a black seamless paper background.

This is one 500 watt light at the camera postion with a black background.

This photo has one light at the camera and one light with a snoot above.

The light above has had black aluminum foil placed around to keep it from shining into the camera lens. You can still see a hint of the shadow from the front light about 2/3rd of the way up. Moving the top light will sometimes eliminate this.

This isn't a bad photo and only uses 2 lights that you can probably buy for $50 or so. You will notice that there is still a reflection from my window. In the final photo I will show you I put a piece of dark cardboard between the window and the piece to eliminate this reflection.

Controlling the light is key to achieving a good photo. I have added barn doors to my lights. These are sheets of metal that close like shutters. This keeps the stray light for bouncing around the room and if I partially close them reduces the power of the light. They can be a hassle to build for these lights. To make a light brighter, move it closer. To make it dimmer move it further away. Sometimes that's just not possible. One trick I use is to either mask off part of the light with aluminum foil or put multiple layers of wire screen over the light. This will reduce to power of the light if necessary. Aluminum foil is also a good way to make snoots (photo term for a tube) around the light to reduce how much it spreads. This works better if you spray it flat black.

Just for our interest I decided to add another technique that unfortunately doubles the cost of shooting the subject but some of you might find it fun to play with. First I put the piece on a black velour background. This material doesn't show shadows as bad as black paper. It can be hard to keep clean so don't let it get dirty. Then I added a piece of polarizing material to the light that is over the camera. This polarizes the light. The filter needs to be at least 6" from the light to keep from burning it. Then you put a polarizing filter on the camera lens. When you rotate the polarizing filter on the camera it will eliminate the glare caused by the polarized light. This photo is just the polarized light over the camera with the polarizers attached to the lens.

It also changes your exposure a great deal so you will need a much longer exposure time. This also means the room needs to be even darker. This photo looks extremely flat because there aren't any shadows or highlights.

To add some 3 dimensionality to the photo I turned the upper light back on. I didn't move or change the upper light at all. The polarizing filter absorbs some light so the upper light is darker in this photo, which reduces the amount of glare coming from that light. By carefully aiming the light so it hits the top of the vessel a little as well as the background you create the illusion of 3D.

The Quartz light and one stand cost me $39. The smaller light was $12. I had a stand that I removed from another quartz light but you can probably buy a light stand on EBAY for $20 depending on the size. The seamless paper backgrounds are $15 for 26" wide and $38 for 54" wide . The polarizing material is $50 and circular polarizers for the lens run between $16 and $50 depending on size and brand. All these were purchased from www.porters.com but you can probably get most of them from any professional photo dealer. Below is a photo of all the equipment I used for the last photo.

If you have an questions feel free to e-mail me at Tennessee Tech University Photographic services Jlucas@tntech.edu