



# PHOTO FINISH

It's rarely discussed, but most digital painters and traditional artists alike will agree that photos are an invaluable resource for creating realistic art.

Now, I can't think of anything that sounds more tedious and boring than painting with the sole intention of copying a photograph exactly, so always keep in mind that you should be making photo references work for your concept, not the other way around. With any reference material, you should plan before you paint; beginning with a concept sketch or thumbnail is always a good first move.

In this demo, I'm tasked with creating a young female figure lying down, next to an empty glass. Some things I considered early were the figure's

pose, light source, color (red dress!), and composition (aerial view). I always recommend taking your own reference photos if possible, so that you have greater control over the image. Since color is easily edited in Photoshop, you don't need an expensive light rig to take a decent reference photo. Natural light or a household bulb can work to at least establish the direction of your light source. Avoid flash photography (snapshots) at all cost! And don't rush—take as many photos as you need to so you get the closest reference to your concept.

*TIP: In addition to taking photos on an as-needed basis, I recommend collecting an "inspiration file" of photos and objects that you can refer to for later paintings.*



## OBJECTIVE

This tutorial discusses the use of photos as source material and looks at intermediate and advanced techniques for photo-realistic digital painting.

## MATERIALS RECOMMENDED

Pen Tablet (for this demo I used a Wacom Cintiq 21UX)  
Adobe Photoshop CS or higher  
Digital Camera (3 MegaPixels or greater for best results)

## SELECTING & PREPPING A PHOTO AS A REFERENCE

An ideal reference photo is in focus and slightly underexposed, so that there's no loss of detail in highlight areas. For the purpose of this demo, I selected the photo on the left which, out of 25 or 30 shots, most closely mimicked the feel of -and gestural movement in- my thumbnail sketches.

There's no limit to what you can do with a photo in preparation for painting, so feel free to scribble, write, or draw on it as much as you like. In this piece I felt there were a

few very important areas to address, such as the background and the shape of the figure's face and body.

Some other things to consider when preparing a photo are spatial relationships between your reference object and its surroundings, enhancement of lighting anomalies (such as the red reflective areas on the skin below), and, based on the level of detail you're using from the source, what size your final painting will need to be at high resolution.



Original Reference Photo

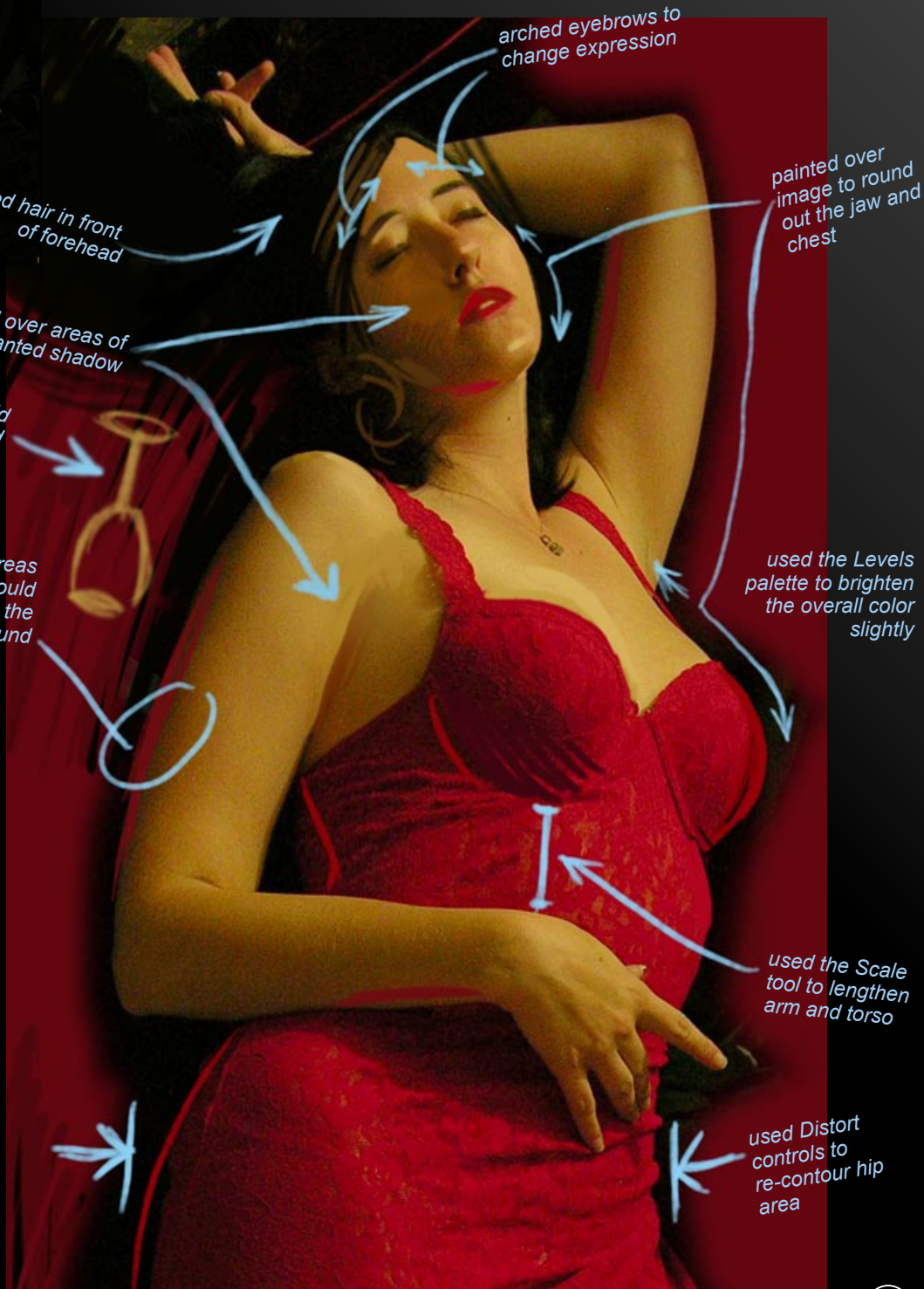


### CREATING A PALETTE

It's important to address color early, even when starting from a greyscale sketch. If your reference photo is too dark or doesn't fit your intended mood, use Color Balance to alter hue, and/or Levels to accentuate values. To edit color in a spot or area, create a new Color or Overlay layer and paint into the photo.

Once the reference photo fits your intended color scheme, you can sample color directly from it and paint a palette as shown above. I always suggest sampling from within your work as you go, but creating a palette from the start will give you something to refer back to if your color starts getting muddy.

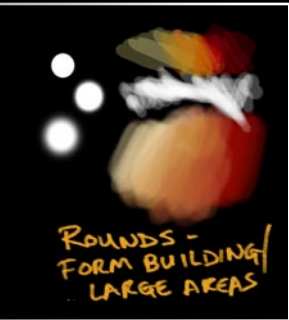
COLOR BALANCE — CTRL-B (PC) /  
Command-B (Mac)  
LEVELS — CTRL-L (PC) /  
Command-L (Mac)  
EYEDROPPER — toggle when using the brush tool  
Alt (PC) /  
Option (Mac)



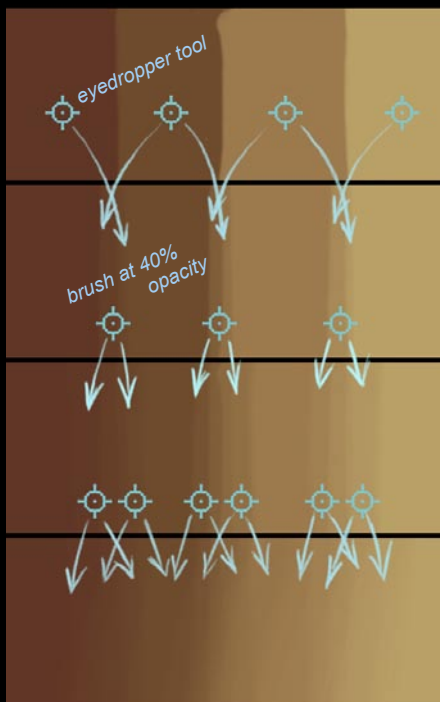
## BUILDING FORMS

In the days before digital cameras, some painters used a projector to transfer an image from film to their canvas to achieve accurate proportions. Without a projector most of us used a grid or just taped up the photo somewhere close by. All of those methods are still completely valid and helpful, but working digitally arguably gives the artist a huge advantage both time wise and visually. You can draw directly on the photo to create an underpainting if you want. Or you could keep your painting file and the photo next to one another, or sketch over it and add color later—it's really your call.

The important part is that the beginnings of your painting have a good range of value and color, and act as a solid base to continue painting on. Check your proportions carefully. For this demo, you can see on the right how I've started by blocking in shapes and basic colors from my palette with large hard round brushes.



Once the whole form is built with the large brushes, I take the brush size down a little and reduce the hardness to blend together the shapes and add a little more detail.

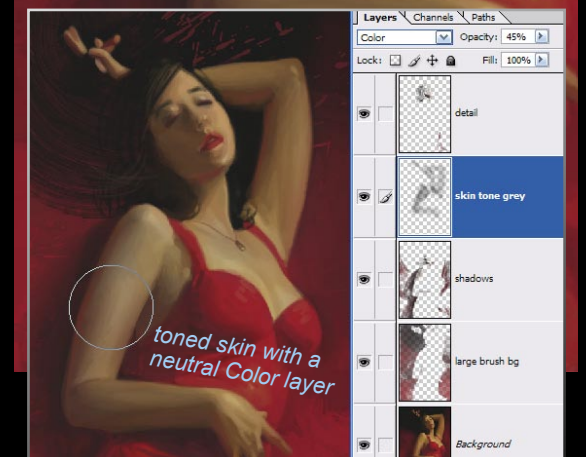


Tonal blending at this stage is still a little rough, so you can use a medium opacity (30% to 40%), but it still requires a bit of patience. Sample color directly from within your workspace and to follow the contours of the shape itself for natural, even blending (see diagram below, left).

After adding the textured background and refining the whole piece to a medium level of detail, it's a good time to go back and fix any colors that may have gotten muddy during blending. In my case, some of the yellows I had sampled seemed oversaturated next to the red, so I neutralized some of the more vibrant yellow in the skin by adding a Color layer and, using a large soft round brush, applied a very low-opacity neutral tone to the oversaturated areas.

## COMPOSITION CHECK

You might have noticed the final version of this piece was horizontal on the first page, yet it's been portrait-oriented during the tutorial so far—that's intentional; We tend to interpret more clearly when objects are oriented as they appear most often (face shown vertically, etc.). To check ourselves, it helps to flip the image around every once in a while!



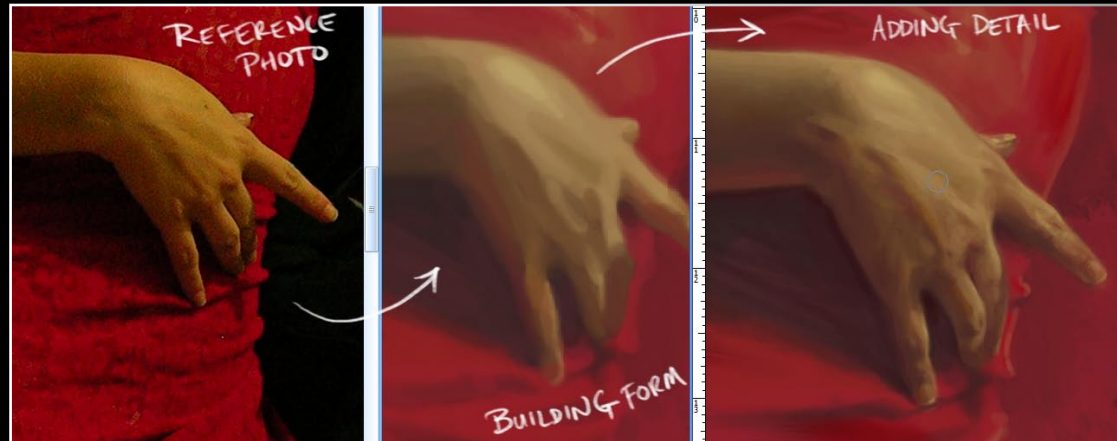
## ADDING TEXTURE AND DETAIL

There are different schools of thought on what level of detail or you should try for with a digital painting, and what techniques you should use to get there—that said, I'll talk about a few of my personal favorites, but don't feel that you have to hold true to them.

First and always, I select the right brushes for the job. For the hand detail demo below, I used a flecky brush with low Spacing, and Dual Brush set to medium diameter for a ragged edge when I apply a large amount of pen pressure. This brush helps create a very oil paint-like texture when layered at a low opacity, and is especially useful for skin. Second, at the detail stage I revisit my palette and pull in lighter and darker values for

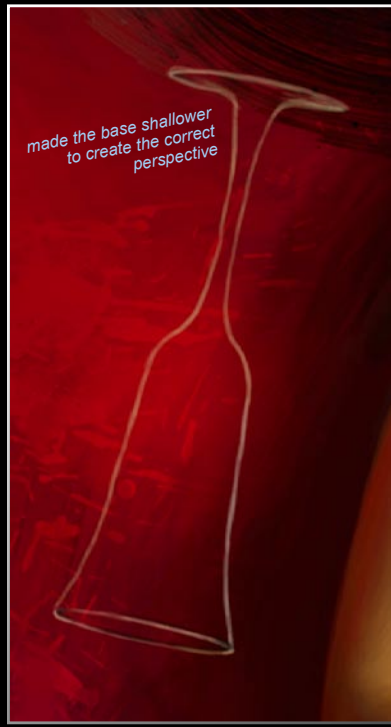
defining edges and highlights. In the hand demo, you can see how adding darker values under the hand and fingers make the shapes more believable and gives the illusion of depth. I find using a hard marker-type brush works well for edges (like the edges of the red dress) and sharp, intense highlights (like light reflecting off an eye, glass, or a drop of liquid).

There is no such thing as 'perfection' (and as I said earlier, trying to copy a photo pixel-for-pixel would be an exercise in boredom). Use your eyes and your artistic instinct to add as much or as little detail as you want. And try not to obsess over any one spot of a painting, because it can make your final image unbalanced.





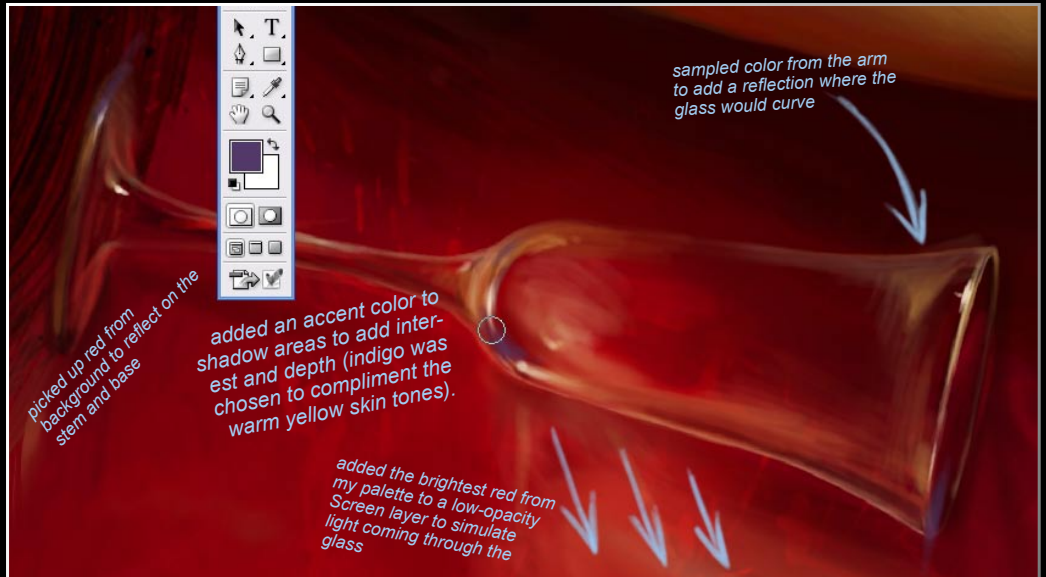
Original Photo w/  
color correction



## USING A PHOTO AS A GUIDELINE

Sometimes a reference photo can only contribute one or two helpful details in the context of your painting, like the glass in this demo. The original photo has highlights that would look unnatural next to the single light source hitting the figure, and the perspective is too steep to look realistic at its scale in the scene. In cases like this it's useful to trace the shape alone, and paint in the details from scratch.

After creating an outline I scaled and rotated the glass for proper placement in the scene. Since curved glass amplifies light coming through it, I added a new Screen layer and painted in some lighter colors from my palette to imitate the cast light. I let the photo determine the intensity of the highlights and painted them in using a hard brush. Lastly, I sampled colors from around the glass and painted in reflective areas such as the base and fluted curve at the top. Since the figure would be casting a shadow on the glass, I covered that section of the outline with colors sampled from the cast shadow on the background.



## "PHOTO FINISH"

Once the painting is done and I've flattened all my layers, there are a couple of after-effects I use often to give the piece a polished look. Realistic paintings tend to look more believable (especially on screen) if there's little or no 100% black used, so I'll add a Screen layer at 3- or 4% opacity over the whole image filled with a color that will pop through slightly in the shadowy areas. In this demo I used an indigo hue which directly compliments the yellow-orange tones in the skin, and is analogous to the reds in the dress and background. Lastly, if (and ONLY if) it still feels a bit flat, I use the Dodge Tool > Highlights on a very low opacity to pull out the brightest parts of the focal area(s). If you see any patches of 100% white, you've gone too far!! Use the Fade sliders (CTRL-Shift-F on PC / Command-Shift-F on Mac) to pull the values back into a natural range, or skip this step altogether.

## FINAL IMAGE

