

How To Do It Manual Coin Photography using Nikon Digital Camera and Capture One Program

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Introduction

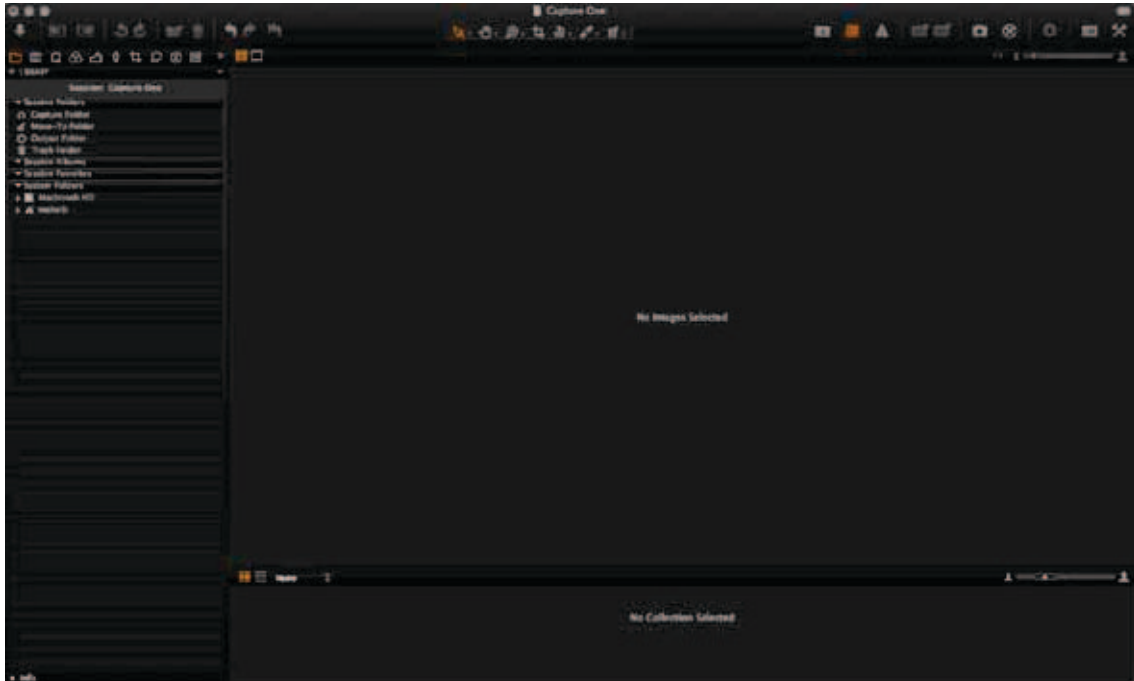
Photographing the Department of Maritime Archaeology coin collection will be an ongoing job for many years. For the moment, the objective is to get the collection photographed as quickly and efficiently as possible. To do this we have a dedicated camera stand, a Nikon D80 camera with a 55mm focal length lens all connected to a iMac computer. The computer runs software that enables the pictures to be taken from the computer and directly loaded onto the computer, without having to download images from the camera itself. This will speed the process of recording the coins. What follows below is a fairly rudimentary manual on how to do this. While some of the processes may seem a bit tedious or unnecessary, remember, these images are going to be the only ones made for a very long time, if we want to record everything, so we might as well get it right now and have a good quality image.

Setting up

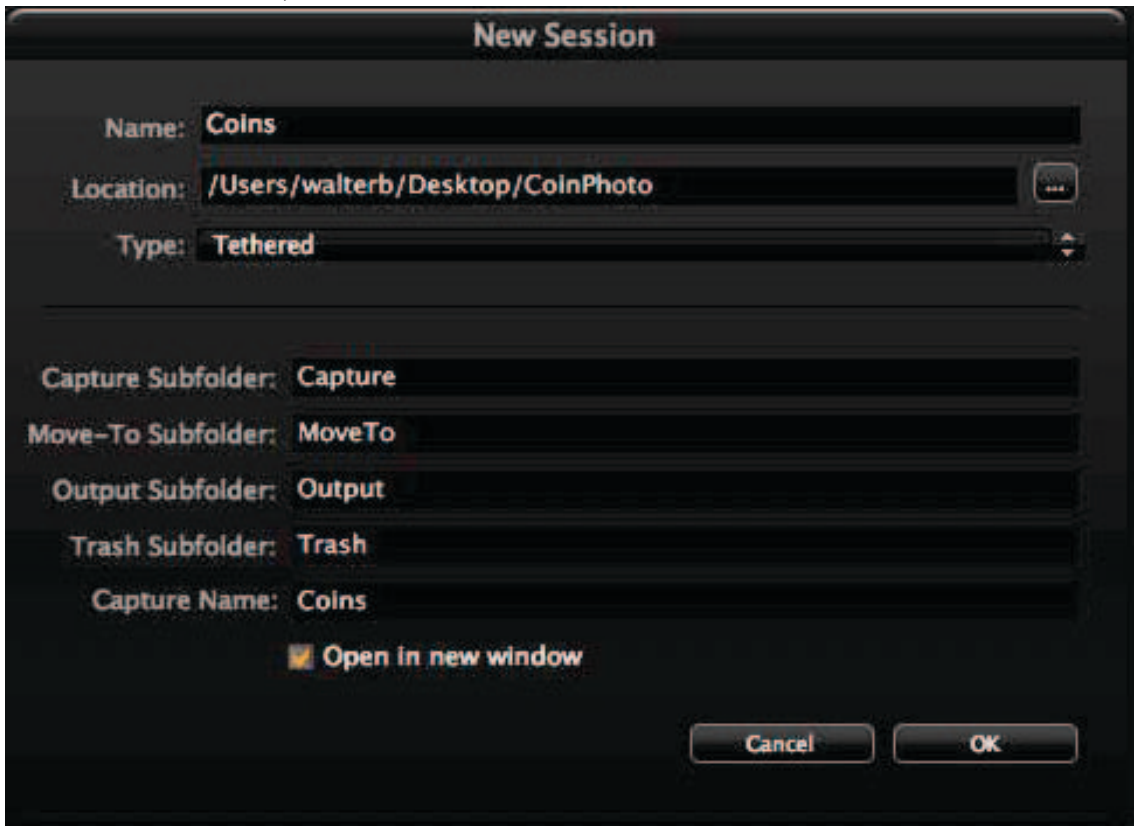
The most complex issue in this whole process is setting up the coin on the camera stand. I recommend that you use a sheet of graph paper as the background. Using this will enable you to move everything around to the correct orientation. The photograph **MUST** have both a scale, a colour chart and the registration number in the view. The Kodak and Ifrao colour charts include a scale, but make sure all the colour swatches are in the view. Again it is probably best to fix the scale to the graph paper so it is always in the correct position, obviously parallel to the graph lines. Place the coin obverse up on the graph paper and centre it in the camera frame. Remember, as you are looking at the baseboard, up is closest to you, so everything needs to be upside down as you look at it. The coin needs to fill about 75% of the height of the frame, not too much or you will not get the scales in. If the coin was in a envelope, the place the envelope alongside the coin so that information on it will also be recorded. In this case the registration number of the coin will be recorded. If there is no envelope, then print out a dymo label and place it in the view.

Connecting the camera to the computer

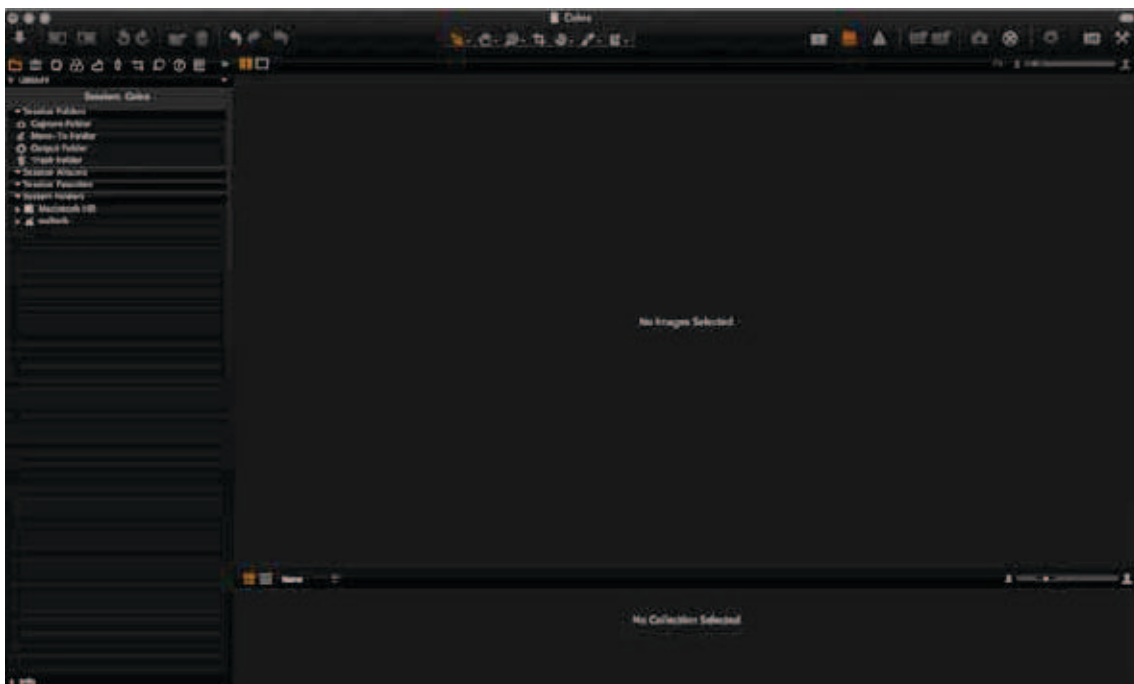
The camera is connected to the computer via a USB cable and a USB extension cord. The camera needs to be switched on, with the switch that is around the shutter release button. Open the program Capture One and you should get a screen as shown below.



At this point one will want to set up a folder to save the images. As Capture One has a slightly complex file structure, its probably best to create a folder on the desktop, or locally on the computer, where all the further adjustments can be made, prior to saving on the image store. Select the New Session in the File Menu, as below.



Notice I have created the session on /User/walterb/Desktop/CoinPhoto. So there is a folder on the desktop with the images that will be taken.



Notice the small camera icon 5th from the right at the top



This is the camera shutter release button. Ensure everything is set up correctly and the image is in focus, there is an automatic focus on the camera, but it is always best to make sure it is correct. Press the icon, and the camera should take the picture and you will end up with a screen like the one below.



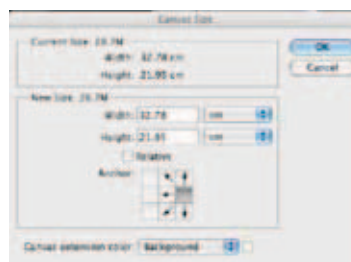
Notice both scales are in the view and that every thing is clear and in focus. If the image for some reason is washed out it may be because the camera has not been able to adjust the aperture, so manually on the camera close down the stop aperture to f32.

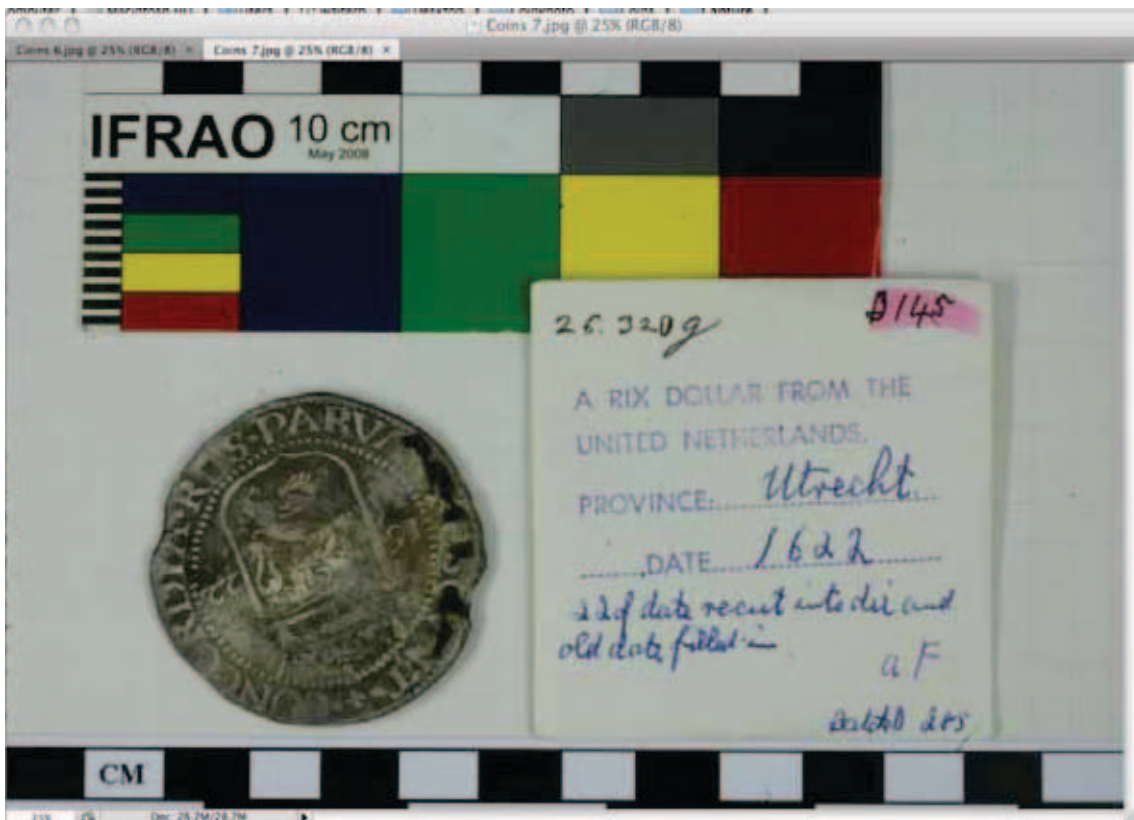
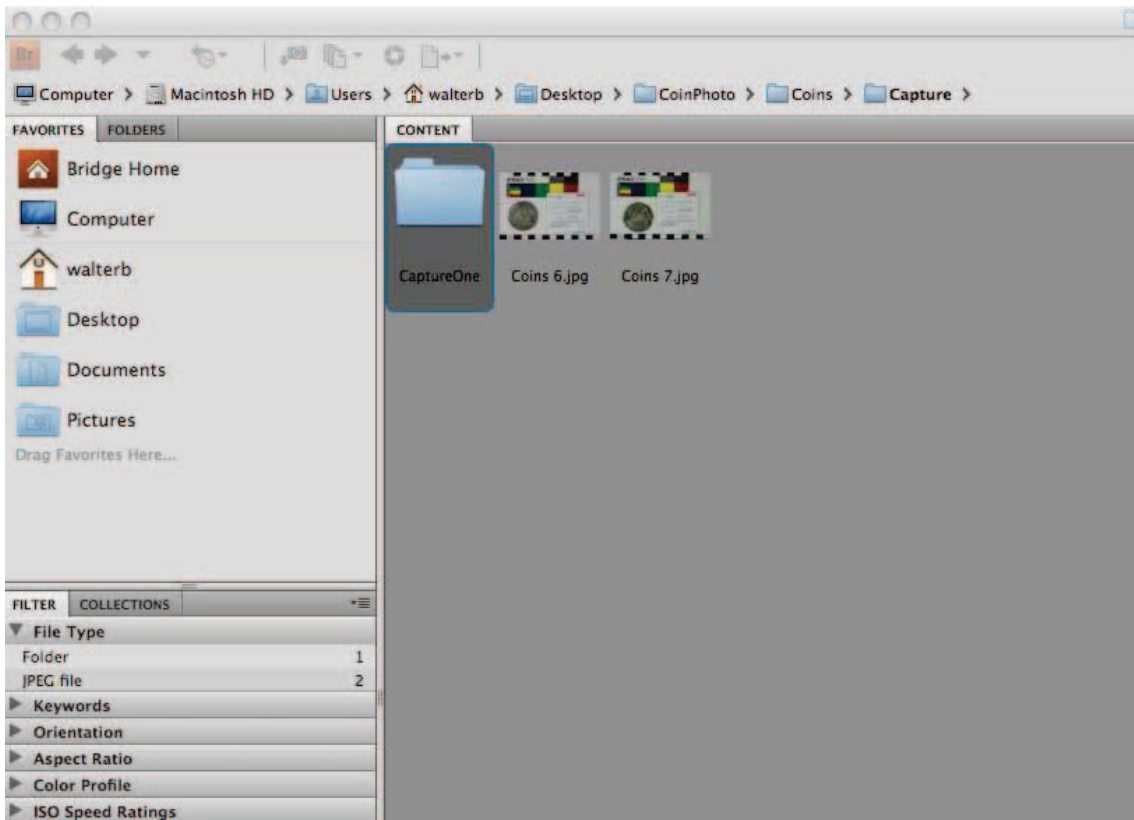
Now turn the coin over (left to right) so that the reverse is in view and take another picture.

Manipulating the data

Taking the example of the two images we captured above, it is worth spending a few moments manipulating the images so that both coins appear on a single image. To do this open Bridge and locate the two images (see below). Notice the images are Computer/MacintoshHD/Users/Walterb/Desktop/CoinPhoto/Coins/Capture. Select the two images and right click and select Open. This will open the images in Photoshop. Note that the image Coins 7 is showing with the Coins 6 underneath with a tab at the top of the window.

Starting with Coin 6 we are going to cut and paste the reverse in Coins 7 onto Coins 6. So to start with we need to make the canvas size a bit bigger to accommodate the image. In Image/Canvas Size select the position where the extra space is going to be needed (to the left centre) and increase the size (currently it is 32.78mm) and increase it to about 40 mm.

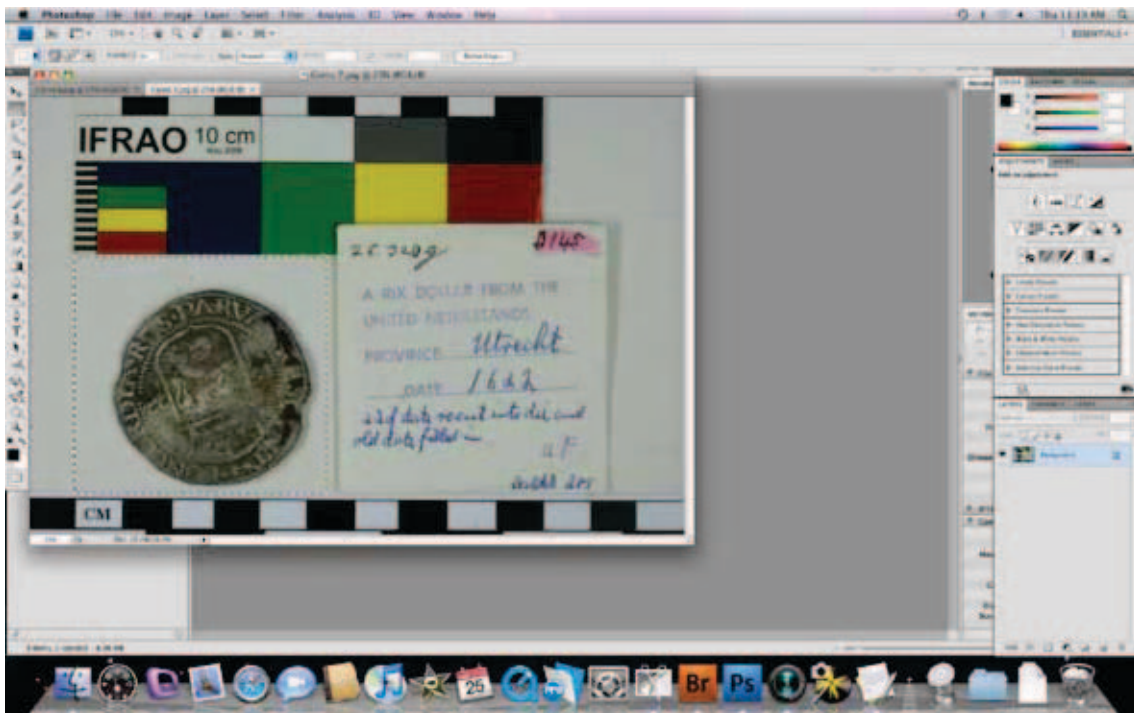




This will then give you a bigger canvas to paste the new image into.



On Coins 7 drag a marquee around the reverse of the coin and copy this (Command C)



Now go back to Coins 6 and paste the image in (Command V). You should now get the new image floating over the old image, as below. Click and drag the image to the position shown below.



Now there are some minor bits of housekeeping and tidying up.

Cropping



Draw a marquee around the exact frame you want to crop and select Crop from Image menu.

Merge layers



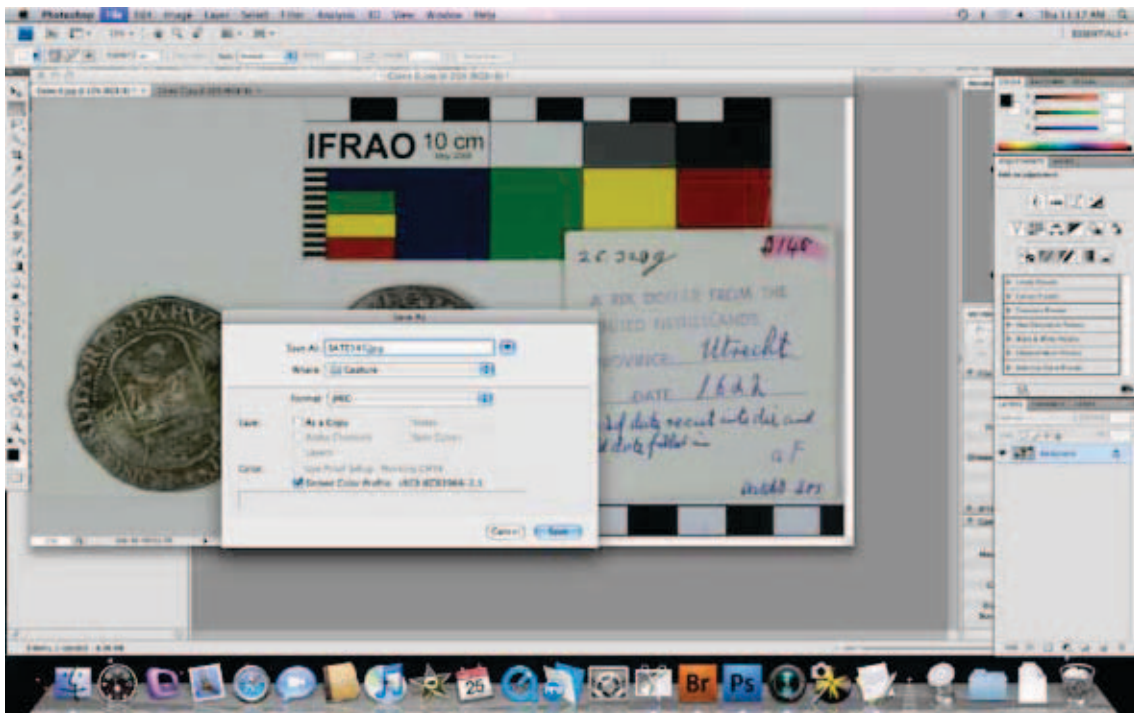
Currently the two images are set in separate layers. In the Layers window, click on the icon at top right of window and select Flatten Image (as above). Note if the window is not open, you can open it from the Windows Menu. Note if it is open the item will have a tick against it.

Pretty image

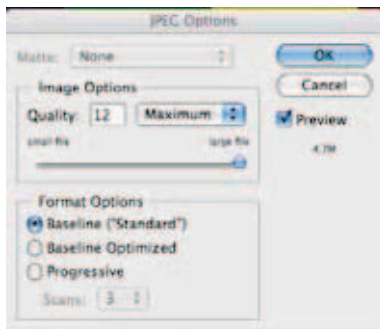
You will note that the final image has a lot of ugly white space around the new part where reverse coin was pasted. You can if you wish cut and paste bits of the graph paper background to fill this space in. Don't forget when you have finished to flatten image again.

Saving

The final stage is to save the image. You will need to rename the image and save it in the correct place on the server.



In this case we are going to call it BAT0145 and save it as a jpeg with Maximum quality.



Finishing up

Remember the following:

1. Always turn the camera off.
2. Make sure that you cover the camera with a plastic bag to keep dust off.
3. Never leave coins unattended in the room.
4. Ensure that you put coins back in envelope and return to cupboard.
5. Make sure you always have a scale and colour chart.
6. Always ensure images are sharp and not too contrasty.
7. Make sure pictures are something to be proud of.