

Big Updates:

1. If editing an image that has Distortion from the normal wide native camera lens, I suggest that you use Snapseed to correct this problem before using the Native Camera Photo Edits. Get the distortion fixed even if it is just a lake with the water going up hill. These distortions really need to be fixed in Snapseed and not the Native Camera edits.
2. Many photographers are forgetting to turn off the Live Photo (which is really a short video). Go to Settings - Camera - Preserve Settings and turn on the live Live Photo setting. This way you can control when and where you can turn on and off at the front page of the camera. (Enclosed in this speaker's notes are how to take a Live Photo and make it a regular still image.)
3. iPhoneography - The Best Camera is the One that is With You. More than 60% of every photo and video taken in the world every day is with cell phones and other mobile devices like the iPad and iPod Touch and similar devices. The iPhone has become the device to copy because of the quality of the cameras, the new Computational photography built into the iOS system and the large number of apps available for photographers. (over 2000 just for Photography)
4. Ideas on how to Shoot black and white infrared images with the iPhone 11 Pro or the iPhone 12 Pro or Pro Max. will be found in the notes.
5. The basic Native Camera Edits starting with Auto are wonderful global editing tools. They are fast, simple and easy to use.
6. In My Albums (Had been called Camera Roll) is where all of your photos in the cellphone are located. Start using the Search (magnifying glass symbol). You will be amazed. For starters, just type in Trees and see what happens? With any photo push up from the photo and you can Add a Caption with titles and key words. Separate with a (comma).

Why is the cell phone so popular? It is always with you and it is so easy to take photos and share with others directly from the phone. This one button camera is like the historic Kodak Box Camera that made photography so popular to the masses in the 1930's. Kodak said you push the button and we will do the rest. The iPhone 12 Pro and 12 Pro Max are more superior for Photography than any cellphone ever made!

Basics:

1. A cell phone with a good camera with digital darkroom applications (apps) available for a complete photography set-up. I use an iPhone because of the many photography apps available to edit the photos right in the cell phone. I find that with the apps, I can produce photography and photo art that goes beyond record shots. Recording things that you see is fine. Painters had sketch pads. Now almost everyone has a cell phone with a camera that can shoot, edit and share your images.
2. Learn to shoot, organize, access, backup and share your images. Additional information is available through the references enclosed.
3. Expand your creative shooting and image processing by trying a collection of applications (apps). All apps are downloadable on iPhones, iPads and some Android phones. Listed in these notes are some of the important apps to start your processing. Learn how to use a few apps to get results before adding other app to your phone.
4. Open your eyes and start shooting with your cell phone. Stephanie C. Roberts* suggests that you create secret missions or subjects/projects and try until you find the subjects that really spark your imagination. Then go in depth with those subjects.

DeWitt Jones, is one of America's top professional photographers and who worked 20 years at the National Geographic, states about how to learn and use these wonderful iPhone apps. "The most important thing to remember when using the apps is to simply explore and play. The iPhone is a wonderful place to experiment: to take creative risks. Don't think too much; push all the buttons, slide all the sliders; PLAY!" Dewitt is the author of iPhone Art in My Life Volume One.

Part I

Most applications for the iPhone cost either \$.99 or \$1.99. A few are very powerful; most do one or two things well. The simple ones are self-explanatory: most of the powerful ones have good documentation or videos tutorials on how to use. More and more of the apps have an iPad version as well as an iPhone version.

Learn how to take better photos with your iPhone.

1. Hold the cell phone as still as possible. Use 2 hands to hold the phone with your elbows close to your body to eliminate movement when tapping the shutter button. Try this technique.
2. Before you take the photo, set the exposure and focus by holding your finger to the screen until a yellow box appears at the top of the screen. This sets the focus and auto exposure. Then take your finger off the screen and move your finger up and down on the screen to adjust the exposure manually. Snap the photo. If you move the phone, tap the screen to reset the yellow box and start over.
3. There are other camera apps that have additional tools. The advantage of the built in camera is that it is fast and always on the opening screen. Other camera apps that I recommend are Camera+2 and Lightroom Mobile which is Free to anyone even those who do not have Lightroom Classic. I do not use cameras in editing apps. Another special camera I use is SlowShutterCam - that takes exposures that can create a slow shutter blur. Each camera has unique tools.
4. HDR (High Dynamic Range photography) HDR is where 2 or more exposures are taken at the same time with little or no movement within the scene. This is an attempt to photograph what your eyes can see but the camera cannot record the extreme bright highlights or open up the dark shadows. Your built in native camera has a HDR mode. It works very well, especially with the new iPhone 12 Pro and 12 Pro Max. Be sure that your camera app in "Settings" set so you get both the HDR version and the image without HDR. These will be larger files. On Auto HDR, 3 or more exposures for each image. You must hold still when shooting HDR and it helps to have little or no wind for quality images. Note - **The New iPhone 12 Pro Max is now the superior Camera for HDR when shooting the new Apple ProRAW files.**

Part II Basic - You can do simple Editing for a traditional photograph within the Native Camera with the new iOS 14.4.1

1. Once a photo is automatically saved into Photos within the cell phone you can click on a single image and EDIT in the upper righthand corner. You can edit the image by starting with the Auto Tool. (Note I do not use 3 tools in the Native edits - Exposure, Contrast and Saturation.) I go to Snapseed for Final touching up and finish editing. If in a hurry,

the "Auto tool" in EDIT may be perfect to share and image. Tweaking the other tools minus the three no no tools listed above and you could just be done? These Edit Tool used in the Photo Albums is available in all iPhone 14.? iOS software. It is called Computational software and is non destructive.

2. The basic app I use to go beyond the Apple Photos Editing is **Snapseed**. Snapseed has been updated and added many tools for editing similar to Adobe Photoshop but easier to learn and use. (See Basic Tools for Photo Editing on page 7.) The Touch/Retouch app is also the best app for removing distractions out of an image. Retouch has two tools not available in Snapseed. 1. is a tool for removing Power Lines and 2. a Clone tool that is very similar to the Clone tool in Photoshop. Some times the Healing Tool in Snapseed will not work and a clone tool is needed. The Healing Tool is great for spots with similar material around the spot that you want to remove.

3. The old adage is true with photography. "If it ins't broke, don't fix it." Sometimes the more advanced we become with our photographic editing skills and tools available we tend to over edit and get a digital look?

Part III - Advanced Editing with more control available.

Going beyond the basic tools in Snapseed opens up more room to control small areas of editing in our images. First start with the tutorials given in the Snapseed app. More tools are describe on page 10. The second way to quickly learn tools in Snapseed are the YouTube tutorials by Rad Drew - "How I Did it". Rad has an entire series of tutorials that go into very advanced methods of editing. This includes "Layer Masking" similar to Photoshop. A third part of Snapseed is doing artistic renderings with 5 or 6 tools that give you methods to change any image for your individual taste and style.

Part IV - Getting Artistic.

Getting Artistic is all part of the fun of cell phone photography by editing without using a laptop or desktop computer. One app that I love to using is Distressed FX. There is a new version, Distressed FX+ that offers additional selections of textures, birds and backgrounds for a fee. Paintersque is also a very easy app to use with fewer renderings of any image. Both Aquarella and Waterlogue are both apps for making Water Color renderings of any image. The list of apps rendering artistic effect keeps changing and makers must keep up with the latest Apple Operating

System or lose their place on the OK list by Apple. See more apps and why I use them in a list on page 8 in this 2020 Handout.

Part V - External Devices to assist the Photographer

1. Manfratto has 2 camera holders. One is the Pro model with a snap lock. It has three 1/4 20 threads for attaching to most any tripod or small units to hold the phone in a very secure manner on a tripod, selfie stick or any other tool to keep the cellphone hands free. This is great for doing Panoramic in the Native Phone Pano mode.
2. Rain covers - Clear Bags (trademark), ZipLock bags and other rainproof designed bags for using around wet situations.
3. Add on Lens. I use the Moment Lens because they are the best glass lens available. You need the Moment's Cellphone protective case that the lens attach into the case. Each Moment lens is very high quality glass. These lens are the best glass lens made for cell phones and when you get a new camera body you just need a new Moment case for \$30. Moment makes a Super Wide, Telephoto, Fisheye, Macro and a special lens for Video.
4. A cellphone battery charger for charging while out in the field shooting all day and not near a location to plug in and charge up. The Mophie unit are wonderful. Once charged they will last up to 2 days in the field and can be used connected with your Cellphone charging Cord.
5. Hard to see the LED screen in bright sunlight? I use the 3 inch Hoodman Loupe or a long brimmed hat. Be creative.
6. I use Infrared Filters from Spencer's Camera and Connection filter holders by Moment and this requires a Moment cellphone case. Moon Dog Labs makes a filter holder for an iPhone 11 or 12 Pro Max that lets you use one holder and one filter that covers all three lens on the 2 Pro and Pro Max phones. (Contact me at jerryhug.com for more details on Setting up and shooting Infrared on your cellphone.)

Part VI - Cellphone Help on Line.

1. Rad Drew - "How I Did It" on YouTube videos are by far the best help for shooting and editing with various apps.
2. Tony Sweet has many Videos for sale on Line and workshops.
3. Dewit Jones has an eBook iPhone Art in My Live Vol 1
4. Dan Burkholder the photographer who really started the iPhone Photography movement has workshops and one line materials.

5. Many books are available but go out of print and out dated every year with changes and updates of new cell phones. I di recommend Scott Kelby's - The iPhone Photography Book.

Major Questions and Answer

1. Question: How do you get images from your iPhone to your iPad or your main computer? A. Airdrop your images from one device to the other. B. Go to the Apple store and have assistance setting your devices so that you have automatic transfer from one device to the other. You need all of your devices to be on the same WiFi system to do this. 3. You can always e-mail images from one device to the other. 4. If your main computer is a PC, you can use Photo Transfer app on the PC and your iDevices.
2. Question: How many images can you put on your iPhone? That depends on how much memory is on your iPhone when you purchased the unit. Also how much cloud space you can purchase from Apple? Example .99 cents a month up to \$9.99 a month.
3. Question: How large can you print your images from the iPhone? One factor is how new is your iPhone? Are you doing HDR images and or RAW images when shooting? Some of these images are 40 meg files? Are you cropping the images? I have made some 16X20 prints where all of the above were working in favor of a large image. A 13X19 print is no problem.
4. Question: How do you learn to use new apps? Play, Play, Play. Use the tutorials and go over and over until you catch on to the special tools and techniques. There are many good videos on YouTube. Check out Rad Drews "How I Did It tutorials".
5. How can I print wireless between the iPhone and the Printer? A. Purchase an inkjet photo printer that has WiFi on the Printer. I like both the Epson and Canon Printers. B. For quality photo prints you need a printer that is dedicated for high quality Color and Black and white prints. There are many online printers like Bay Photo and Costco.
6. Shooting Videos and combining video clips into a Movie is very convenient with Apple's free app iMovie. Remembering a few basics when shooting videos: A. Hold the cellphone horizontal at all times. B. Think in shots. A shot being about a 10 second clip. Keep these shots about 10 seconds. C. Do not shoot until you see the whites of their eyes. D. Zoom with your feet. E. Stand still, Stop fidgeting, No zooming during shots. Keep the light behind you and the camera. Keep your video short. Edit your shots down to 2 or 3 minutes total. Use both

hands to hold the iPhone at all times when shooting. For holding the cellphone, consider getting a good stabilizer like DJI or Freefly for the iPhone.

7. 7. Time Lapse - Taking a series of single images with a planned interval between shots and then combine these single images into a sequence that closely resembles videos. Presently I am using the Time Lapse software that is built into the resident camera. All the settings are totally automatic.
8. 8. Using Video to catch that perfect moment in time? A. Set your Video mode to the highest quality available. You really want a still image but finding that exact moment in time could be easily missed. To catch that decisive moment of impact, I shoot High quality Video clips. B. Then I put this short video clip into the app called Video 2 Photo and harvest off the exact frame where the desired action takes place.
9. 9. Color into Black & White photos. A. Always shoot in the Color mode at the highest resolution. B. Before converting into B/W, push up the color saturation. With more color saturation you are able to get good separation of highlights, mid-tones and shadows for a good B/W image. You can use Snapseed to convert to B/W. I personally like Dramatic B/W for more options of good B/W. See the Rad Drew video on Dramatic BW. Yes you can shoot B/W from your native camera in the three circle settings app. Go to the last three settings for your choice. There are other app recommended later in my notes.
10. Find your Focus - Define images by what you like to shoot. - finding new ways of looking at the world around us. Keep shooting and develop your subjects. Learn to shoot with your Heart and Soul. Take your time like it is the last shot that you could take. You will then find that you have more good images and less wasted time throwing away unused clicks.

Snapseed Workflow - Using just 6 Basic Tools

A Basic Traditional Work Flow for Photo Editing with Snapseed
(Snapseed has many more tools for editing and creating beautiful photo art. This is the very Basic Method for getting started.

1. Open image in Snapseed
2. Use the **Perspective Tool** to correct the horizon and keystone problems. For fixing the Horizon or getting the vertical/horizon straight use the (Rotate Tool). To fix keystone, use the (Free Tool) where you can pull or push any corner of the images as needed.
3. Crop the image using the **Crop Tool** (if necessary). I always use the Free crop setting unless I want a photo to fit a special paper size like 4X6 or 5X7 etc.
4. Clean up spots with the **Healing Brush** tool if necessary, remove unwanted elements like spots etc. (If you need to use a Clone tool or eliminate power lines use the "Retouch app" for those issues.) Some times this app is called Touch/Retouch.
5. Use the **Tune Image Tool Group** to perform fundamental edits (saturation, ambiance, highlights, shadows, etc.) (A.) Start with Ambiance. Take the Ambiance tool up to 100% to start and decrease as needed. This can be done now or later. (B.) Select Highlights. Highlights is a brightness slider just for the highlights or bright areas. You can increase or decrease the highlights. Note: In landscapes if you decrease the Highlights, you bring out more details in a cloudy sky. This a simple way to make an average sky beautiful. Many times clouds are "blown out and pure white". Pure white is not good! We call this "Paper White" and pure white skies really will not make a good print or image for the internet. (C.) Adjust shadows in the image. This is where you can open up dark areas that did not have enough light. Or you can darken the shadows to give more drama to an image or make good silhouettes.
6. Use the **Details Tools** for Structure and Sharpening. (A.) Increasing Structure will bring out details in the subject. Details like in many landscapes are good, but if the subject is a person's face, increasing the Structure could bring out the pores and blemishes that may look

better smooth. Use Structure adjustment accordingly depending on the subject. When increasing structure and sharpening, it is very easy to overdo these effects and get a granulated effect. (B.) Try and keep both numbers under "20". When using these tools enlarge the image with a two-finger gesture and watch how the image responds to adjustments. When satisfied, click the check mark to commit to the changes.

7. **Tonal Contrast?** - this tool has a preset that may be all that you want to use. If it looks good, click the check mark, if not click the "X". Each image is different. Go with what looks good to you?

8. Committing to changes vs Saving Images. (A.) After adjusting settings in each tool kit, you will need to click the check mark to commit to the changes. Now you are ready to save to the Camera Roll. (B.) Here is where you **SAVE A COPY**. This option saves a copy of your image, preserving the separate original image. (The original is like the digital negative.)

9. All the other tools are useful for further creative results. Snapseed has Tutorials within the application. WorkshopTime permitting, I will go into additional tools for image repair and control. Each tutorial you can watch over and over until you "catch on" to the process and what it does to the image.

10. I have many other apps that I use so I can do everything on my Mobile devices - iPhone and iPad. Some apps are also available for Android devices.

Some of My Favorite Apps

1. *Snapseed - The #1 editing app for traditional photography and artistic renderings.
2. *Touch/Retouch for taking things out of images. It also has a Clone Tool like Photoshop and a Power Line removal tools. (Only available in Retouch)
3. *Camera+2 for shooting and editing RAW, Slow shutter and HDR images. Works great for shooting Infrared on the iPhone.
4. *Lightroom Mobile - has RAW and added controls not presently on cell-phone's basic camera.
5. *Distressed FX+ for adding textures and birds to you blank white sky images.

6. *Slow Shutter Camera - Slowdown waterfall, mountain streams, lakes for that creamy water look. The cellphone must be on a tripod or some means of not moving when taking the photo. ICM Intentional Camera Movement
7. *Image Blender for putting images together. SuperimposeX also works.
8. Diptic for putting many separate images into one frame.
9. Mextures for adding light leaks, textures and other effects to one or a group of images.
10. *Blackie for Fast B/W presets. I also like Dramatic B & W as my favorite.
11. Carbon for B/W presets and also has a preset for making an image into a Negative. iPhone 11 and 12 Pro allow you to shoot everything in B/W.
12. Night Camera - for taking low light image to avoid noise and grain. Cellphone must be held still because it shoot multiple images. (Note the new iPhone 12 Pro Max is better for shooting in the night mode. I no longer use Night Mode.
13. Alien Sky where you can add Sun, Moon and stars etc. into a sky.
14. *Video 2 Photo where you can shoot short video clips to catch the decisive moment in an action photo.
15. *Moment App for shooting with my Special Moment Lens Set up for each different lens according to your model of iPhone.
16. ND Exposure - for calculating the length of time of exposures for long exposures effects.
17. Lucid to take out noise on low light images. It also has tools to make corrections in facial roughness.
18. Aquarella and Waterlogue are good apps for changing standard photos into Water Color images.
19. A+ Signature and iWatermark both work for adding watermarks to you photos.
20. *LensLight for adding beautiful flares and great effects.
21. Painterresque is an easy and fast way to make interesting renderings for images.
22. Photofunia is a fun and easy way to put someone into various situations and seasonal settings.
23. *Camera+2 for shooting RAW and grey controls and in house editing.
24. PS Express and Photoshop Mix for using some of the traditional PS tools with your touch screen devices. (You must have other Adobe software to get these apps.

25. Tiny Planets for making images into circular scenes. Another app called Circular is another favorite and easy to create circular images.
25. LightLeap (was called Quickshot) is a way to add skies with clouds, water and other effects to photos.
26. *Lightroom Mobile. For shooting Infrared images on your iPhone 11 Pro or 12 Pro and Pro Max.
27. *View Exit, finding the metadata of images.
28. *SuperimppseX for combining images in layers. Outstanding controls.
29. *Average Camera Pro for ICM
30. Lens Flare.
31. Pro Camera Pro Camera has many variations of HDR and they are good. I am so pleased with iPhone's latest Smart HDR because it matches the setting of Pro Camera that I use. This is an outstanding App.
31. Halide I like the manual and auto controls. This is a subscription app with a monthly/yearly cost factor.
32. Darkroom a very popular editing app but does not give all the options we have with Snapseed.
33. Remini Another subscription expensive app. It takes old historic family photos and corrects the faces like no other app available. I have advised others to buy the app use it with all their historical people images and then discontinue it.

Snapseed MORE great editing tools.

- A. First there are presets. (Called LOOKS) These are fast edits. Just pick one that you like. The program makes all the decisions.
- B. Tools - These are my first choices so I can control what the image looks like. Most of the tools are controlled in size by using 2 fingers and making the image bigger which in turn makes the tool smaller to get into tight places.
 1. Crop tool. This works but I chose the Perspective - Rotate tool which makes auto edge corrections. I use free unless I need a given format. Click anywhere in the image to get the information out of the way so you can see the bottom of the image.
 2. Rotate Tool - is as stated. (I use this very little and do my rotating in the Perspective tool.)
 3. Expand tool works. You can pull any edge out a little. It works best when there is little or no information near the edge.
 4. Selective Tool is excellent for changing small areas where the color and/or the texture is the same.

5. Brush tools let s you brush in a brighter are darker setting. It is like the dodge and burn tools we had in the wet darkroom days. I go slow and easy by using small settings.
6. Healing Tool works best at removing spots and copies the material surrounding the spot.
7. HDR Scape is really a fake HDR tool and has 4 different setting and each can be adjusted with a slider. This works when you want the detailed HDR effect in your image.
8. Glamour Glow. There are various presets. Try them you may like especially for removing over details area like in skin tones of older persons.
9. Tonal Contrast - I only click it off and on. I do not play with the settings. You like the effect for a photo that need more punch or not. Click X and you are back out.
10. Drama really goes wild. If it works, use it. If not just click the X.
11. Black & White. These are presets and is a fast way to convert to a B/W image. Check out the tutorial on B/W in Snapseed. Tutorials can be found by clicking on the three dots on the upper right corner of the screen. Sometimes I try the various color filters for their effect.
12. Double Exposure works. Try it.
13. Portrait - try the settings on any head shot. They do let you make facial changes.
14. Text. Lets you add text to any image.
15. Frames gives you many selections for White or Black frames. Remember to use your 2 fingers to make the frame thick or thin.
16. I have skipped many of the Artistic Apps that are available for your use. I use other app like Distressed FX+ and others for my creative textures.

Live Photo - Changing a Live Photo from a video to a still Image.

1. Open Live Photo
2. Tap on EDIT
3. Tap on the Live Photo button on the bottom left near the word Cancel.
4. Live now at the Top of the Screen in Yellow. Tap on it and puts a line showing cancelled.
5. Go to the bottom of the screen and tap Done.
6. Now you can share the image to messages, e-mail, AirDrop. It is now a single image.

Shooting Infrared images on the iPhone

1. This requires attaching an 720nm IR Filter to the iPhone. I use a Moment iPhone Protective Case from Moment company designed for the iPhone 11 Pro series or the iPhone 12 Pro or Pro Max.
2. To attach the filter to the case there is various methods. A. the Moment 67mm Phone Filter Mount. This covers all three of you built in lens. 2. Moon Dog Labs - Multi-Camera Filter Mount Go to Moon Dog Labs website.
3. If you have the Moment Cellphone protective case for your model iPhone or Android units, one of the most popular and expensive ways to get started is to use the Moment 37mm filter holder and 37mm 720nm IR filter. I believe the highest quality filters are from Spencers Camera in Utah. B&H Photo has cheaper filters. The filter 37mm filter holder and 37mm 720nm filter combo fits the Native Camera and the Telephoto Camera on iPhones. It does not cover the area of the Super Wide Lens.
4. Getting started editing the IR images. The IR image is a very reddish look and needs to be converted into black and white. The Snapseed app is one of the fastest and easy methods. In the B/W tool kit you have options. I always click the bright selection and then pick one of the color filters that seems to work best. Once you convert into B/W you then go to the various other Snapseed tools to finish editing.
5. When shooting the image I choose one of 2 methods. High Efficiency (HEIF) or ProRAW on my 12 Pro Max. If you have an older version iPhone you can use the app Camera+2 to shoot RAW or ProRAW. Snapseed and other editing apps work with either format.
6. Lightroom Mobile is also available for shooting RAW and editing.

Check out the Rad Drew Photography website and his YouTube programs "Howl Did It tutorials". Rad gives steps on getting good infrared on the iPhone. Rad also started A Facebook Group on "iPhone Infrared Photography". Check it out. Remember, you can use any software that you like to edit these images. Adobe, Topaz and other software.

Shooting Fireworks with your iPhone iPhone - Fourth of July Fireworks

1. You Must Hold the iPhone still or the images will be blurred. In most all fireworks viewing locations (especially in large gatherings), You must sit in a folding chair or sit on the ground. Most folding chairs have arm rest. You

can lean back and put your elbows in the arm rest and hold the camera steady. A, The best way is to have the iPhone on a tripod. There are many iPhone attachments that you can use to hold the iPhone on a tripod. B. There are ways to click the shutter on the iPhone with out touching or moving or bumping the set-up. The cheapest devices are bluetooth clickers. Almost all selfie sticks come with bluetooth clickers. You pair the clickers with the iPhone before using. Do anything you can to stop the camera from moving.

2. Setting your focus with the first fireworks image. Using the Focus touch control on the iPhone works. If time, Hold down your finger on the screen until the focus lock shows up on the screen and keep the iPhone in the same location for the rest of the fireworks. This is easy if you just keep the tripod in the same location for the total shoot.

3. Try to Zoom for a closer capture. If your iPhone has a telephoto lens, use it. For more reach to your telephoto lens, you can add on another tele lens (Like the Moment Lens added on top of the built in telephoto lens for a double reach. Digital zoom is not suggested. (Digital zoom is when you pinch out with two fingers to make the image larger.) Use this for your only last option. Topaz software can make some corrections that will hide the lack of optical options.

4. If you have the iPhone 11 Pro or the 12 Pro or the 12 ProMax models, be sure to have the Night mode turned on. Night Mod will give you more details in the fireworks in low situations.

5. Finally - I repeat, hold the camera STILL for the best results.

I hope these notes for iPhone-ography give you ideas and loads of creative fun. Do enjoy.

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