

# Lightroom 101

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## 1. Day One

### a. Catalog creation

- i. This is the foundation of your editing and storage experience. The first thing to make sure you understand is that Lightroom references images and works in a non-destructive manner.
- ii. You will do best to import a set of images and then manage the images through Lightroom.
- iii. Folder structures will be maintained, and can be edited, through Lightroom.
- iv. If you add a folder or an image after creating the catalog, it will not immediately find it, you have to import it through Lightroom.

### b. Importing images

- i. Use the import button on the bottom left of the library module.
- ii. Navigation moves left to right, in other words where are you importing from, what are you importing, and where are you importing to?
- iii. You will want to have a library of images and you will need to bring images in on a memory card. In this case you will want to copy them from the memory card into your library. Adding will link images already on your

machine into the catalog. Having your images in one location is a useful process, however you get there.

iv. File handling

1. Smart previews save space on your machine. By the way, it is useful to store your images on an external hard drive. These are also called proxy files.
2. I have Lightroom remove likely duplicates. Cleaning up a library later can be very tedious.
3. Adding to collections (useful for projects). However, many of your most powerful collections are auto populating (these are known as “smart collections”).
4. File renaming can happen only when you are copying images. This creates a more useful and searchable name for later.

v. Apply during import

1. Develop settings are a good shortcut. Or you can build a preset that you like. However, a color profile or a basic edit might be totally appropriate. This depends on how you set up enhancements within your camera.
2. Metadata allows you to add a copyright and a website and perhaps other information to the images. This is additive to the information already embedded within the file itself.
3. Take a moment and add in essential keywords now. They will be invaluable later. The only time to not do

this is with a large initial import of a large variety of images.

c. Folder organization on hard drive

- i. Use a system that is logical for you, this can be chronological or thematic.
- ii. You can right click inside of the folder structure panel and create a new folder. Then you can highlight images and drag and drop them into this folder. They will move in the OS as you do so.
- iii. We will talk about this in a bit, but keywording will be more powerful than the folder structure you generate.
- iv. If you remove a folder you will remove it from Lightroom's catalog, you will not get rid of the actual file.
- v. Do not rename at the OS level, either the image or the folder.
- vi. If you rename an image at the OS level a white box will pop up. Click on it to locate the now missing file.
- vii. If you rename a folder in the OS, right click on it in Lightroom and click on "find missing folder".

d. The power of keywords

- i. Add in keywords, as many as you can think of, when importing.
- ii. If you have images already within your catalog, go to the library module, select images, and add keywords. Make sure auto sync is turned on.
- iii. In the library you can search for keywords and then click the arrow to enter the develop module with your selection.

- iv. In this way you can find anything within a specific folder.
- v. Once keywords are set up they can auto populate as suggestions.

e. Organizing

- i. Hit numbers to rate (1-5)
- ii. Hit 6-7 to change color
- iii. “P” to flag and “U” to unpick. All of these can be used as filters later on.
- iv. In the library grid mode you can select a group and stack them together by selecting them and click “command + g”.
- v. Click the lines on the right to open the stack or the line on the left to collapse it. Or click “s” to open and close the stack.
- vi. This makes navigation faster. You can almost move stacks as a whole to collections or folders.
- vii. In the top menu go to photo: stacking: auto stack by capture time. This will create stacks based on how close together images were shot.
- viii. In the same top menu you can remove a stack if it isn’t helpful.

f. Using collections

- i. Smart collections are a great way to keep your organization up to date, or to find images after the fact.
- ii. You can add to a collection at the moment of importing. You can also manually add images to static collections at any time.

- iii. I use keywords and image names first, and then I can filter by rating or color.
- iv. Personally I use color for projects or the state of the edit, and I use rating to finalize which images I will use in the future. Please note that all rating happens *before* any editing, if at all possible.

g. View Modes

- i. At the bottom of the library module you will find a fast navigator and filter system. You will want to click on the down arrow and select view mode. Press “t” to show the toolbar.
- ii. Here you can bounce back a forth from the rating you want to filter by, the color tag, as well as other information as you might find it useful.
- iii. The grid box goes back to the grid and the individual image button examines one image while inside of the library module.
- iv. Lastly, the XY button compares two images for the purposes of rating them.

h. Creating and using import presets

- i. First, play with the presets on the left side of the develop module. If you don't like a selection after using it, you can simply go back within the history panel.
- ii. A good preset is either very thematic to the way you want your images to look or they are relatively basic. In this way they can be applied to a group of images and the edit will be appropriate for each.

- iii. The simplest presets are the default options, which have basic editing for the camera and lens used (please note if your lens is recognized by Lightroom before using this option).
  - iv. By right clicking on a preset you can move it to favorites or apply at import.
  - v. Naturally, you can build specific presets to the way you edit different styles of images. You make any edit that you want on an image and then go to the presets panel and click on the + symbol.
- i. Quick develop
    - i. Apply the saved presets as discussed before.
    - ii. Change white balance as if the image had been shot in that particular setting (please note, like much of what we talk about, this only works with images shot in RAW quality).
    - iii. Tone control
      - 1. After click on “auto” you will be able to do a basic adjustment to a number of factors.
      - 2. You can adjust more editing factors with the arrows.

## 2. Day Two

- a. Navigator at the top left of the develop module will allow you to zoom in and navigate
  - i. Click “G” to view the grid as opposed to an individual image.
- b. Panels

- i. You can change the size of a panel by clicking on the side and dragging.
  - c. Resetting
    - i. Double click slider
    - ii. History panel
  - d. Lights out “L” will isolate picture
    - i. Preferences, interface
    - ii. There you can change amount of blackout that happens
  - e. Before and after
    - i. Click “y” to compare before and after.
    - ii. You can also compare one image to another with the XY button.
    - iii. Under “view modes” you can see thumbnails, individual images, and ratings. Comparing before and after only works in the develop module.
  - f. Leveling (sunset boat image)
    - i. Hit “r” and then rotate.
    - ii. Or after clicking “r” then click “angle” below it and drag across the horizon. I find this mechanism easier.
    - iii. Then hit “o” for different overlaps to use when composing the image.
    - iv. Hold “shift: and hit “o” to rotate the overlap.
  - g. Histogram
    - i. You can do a basic adjustment by dragging the two sides of the histogram, effectively adjusting the white and black point.

- ii. In fact if you adjust in this way you can watch the slider change on the “whites” and “blacks” sliders inside the basic adjustment panel.

h. Basic panel

- i. First, select color or black and white. We will deal with black and white in a little bit.
- ii. Profile is the first color decision to make. Click here and you will find color profiles that you will need to select first.
  - 1. A profile is a selection of colors that either creates a mood or better reflects the full spectrum of colors available to the photographer.
  - 2. Each camera is missing part of the full color spectrum of naturally occurring colors. A camera’s “profile” builds out the missing colors from your particular camera.
  - 3. For now we will select a generic profile, later in class we will deal with creating custom profiles, which is the really powerful ability.
- iii. White balance
  - 1. White balance selection comes first.
  - 2. You can adjust kelvin and tint separately.
  - 3. Or you can use the eyedropper tool to select a neutral gray.
- iv. Exposure slider is a global adjustment over how well exposed the scene is.
- v. Contrast is the difference between bright and dark tones. I add no contrast in my camera at the moment of capture



and so I have to add contrast to my images as a matter of course. I also do not add color saturation and shoot in a neutral profile. It gives me more latitude when editing.

- vi. Highlights and shadows are powerful for controlling the dynamic range of the image.
  1. These are what I rely on in order to stretch the exposure potential of my camera. Remember that your camera records more information in shadows than it does in highlights.
  2. Please remember that as you brighten shadows and darken highlights, you are reducing contrast and potentially making the image more grey and less interesting. Look at before and after regularly.
- vii. Whites and blacks adjust the white point and black point of an image, in other words, how gray the white and black shades are. I like to make my black regions a little darker, personally.
- viii. Presence is a series of adjustments having to do with contrast between objects. Essentially, these are used to make your image “pop”.
  1. Texture slider adjusts medium sized detail in the image.
  2. Clarity adds sharpness to the mid-tones.
  3. Dehaze cuts through fog or other haze in images.
  4. Saturation is the depth of a color value. However, vibrance attempts to not affect skin tone and already highly saturated areas.

- i. Black and white
  - i. Tap “v” for view to view in color again.
  - ii. Exposure used as normal. However, you can push contrast much further.
  - iii. This adds a B&W panel to your panel view. Here you can take color in and out of your black and white image, effectively turning specific colors either black or white.
- j. Tone curve panel
  - i. First, please note that there is a toggle on and off for each of the remaining panels to see their adjustment individually.
  - ii. Don’t be intimidated by this adjustment. It just refers to contrast and you don’t have to use it if you don’t want to.
  - iii. Separate highlights and shadows. Click on the line to lock one point in place.
  - iv. Raise or lower the points at the end to change black point (raise black to achieve a film look).
  - v. Also can adjust RGB in a curve setting (at top of curve panel).
  - vi. Do each color separately.
  - vii. Now adjust contrast at a color specific level.
- k. HSL/color panel (Nathan portrait at park)
  - i. HSL Adjustments
    - 1. Vibrance and Saturation
      - a. Hue is the actual color.
      - b. Saturation is all colors and how deep those colors are.

- c. Vibrance protects skin tones and highly saturated areas.
- d. Luminance is the brightness of those colors.

I. Color grading panel (Dallas Divide)

- i. Ability to adjust the color of highlights and shadows separately.
- ii. This includes hue saturation and luminance for each value. How you adjusted exposure, specifically white and black point before, will help define “highlight”, “midtone”, and “shadow”.
- iii. Adjust blending to make sure it looks realistic.
- iv. Remember that shadows are cooler than areas of direct sunlight. That’s why these adjustments exist.

m. Detail panel (lion cub)

- i. If you need to adjust either of these, wait to edit sharpness in the basic panel, as these are effectively contrast adjustments. Editing contrast globally beforehand makes this workflow harder.
- ii. Noise reduction
  1. Should be done before the detail slider. Lightroom does a small noise reduction to RAW images upon import.
  2. Two types of noise. Color noise is when multiple colors appear in an area that should be a singular color where luminance noise appears more like grain. Adjust each slider to see which you have.

3. Moving detail slider gives more detail but can introduce noise. Moving it to the left can give you smoother results with less detail.
  4. Moving the contrast slider adds contrast, but can introduce noise and artifacts.
- iii. Sharpening slider is a contrast adjustment at the edge of subjects.
1. Use after noise reduction, not in order of sliders.
  2. Zoom in on the navigator to see the effect of your work.
  3. Radius slider affects how far away from each pixel sharpening occurs. Very fine detail needs a small radius (such as a macro or a portrait) and images that have larger and cleaner edges want a larger radius (like landscapes or architecture).
  4. Detail slider changes the amount of sharpening done.
  5. Masking slider controls where the sharpening takes place.
- n. Lens corrections panel
- i. Profile [*Maroon Bells image*]
    1. Enable profile corrections will adjust for known distortions in lenses. If it guesses the lens incorrectly you can select the profile in a drop down menu.

2. Adjust distortion and vignette with the sliders. This is particularly useful if the lens you use does not have a corresponding profile.
- ii. Manual [*Nathan on slide image*]
  1. Like before you can manually adjust distortion.
  2. You can also adjust fringing either manually or by selecting the color of the fringe elements. Be careful, this can desaturate your image.
- o. Transform panel [*sprinkler image*]
  - i. Auto attempts to auto straighten the image.
  - ii. Vertical attempts to make all the vertical lines in the shot straight. Sometimes it goes too far.
  - iii. Level will use a clear horizon line to level the image.
  - iv. The guided button asks you to create two straight and parallel lines. Click and drag to make these lines.
    1. It will keystone the image to make the vanishing point straight.
    2. Please note that this will lose some of the image, so shoot these images wider than you actually want them to be.
  - v. Full tries to reorient the photographer's point of view to make the lines straight. This almost never works.
  - vi. After this the transform box gives further options.
    1. Vertical and horizontal apply keystone effects to the image. This can straighten a city to look flat to the viewer.
    2. Rotate will rotate the image inside the frame.

3. Scale will stretch vertically or horizontally, which may be appropriate after a guided transformation.
4. Scale zooms in on the image to remove the white out area that is created after keystoneing.
5. Offset moves the photo up and down or left and right.

p. Effects panel [*Rambler Ranch image*]

i. Vignetting

1. Style comes first.
  - a. Highlight works best with images that have a lot of highlights or sky to them. It saves some of the highlight values.
  - b. Color saves most of the bold colors as it applies the vignette.
  - c. Paint overlay is a gray overlay vignette on top of the image. This is the least used option.
2. Amount is the degree, but also if it is a bright or dark vignette.
3. Midpoint is where it starts in the image.
4. Roundness is the shape.
5. Feather is the hardness of the edge.
6. Highlight saves the highlights within the vignette.

ii. Grain

1. First, zoom in to see the effect as it's applied.
2. Amount adjusts how much grain you introduce.
3. Size is the size of the grain as it's applied.
4. Roundness is the uniformity.

- q. Calibration panel [*Maroon Bells image*]
  - i. Informs the colors in your image, so should be used earlier, not later.
  - ii. First, please note that colors are not typically “pure” the reds have greens and blues in them. So adjusting the hue and saturation of the primary colors will affect every pixel within the image. This is different than when you adjust a color in the HSL panel.
  - iii. Changing saturation, especially of blue, can enhance all the color within the image.
  - iv. This is different from adjusting the hue, which can throw off your color accuracy.
  - v. Red primary is great for working with skintones.
- r. Virtual Copies
  - i. Top menu. Click on photo and then virtual copy. A copy appears next to the original so you can have additional iterations of an image.
  - ii. These show up in grid mode as well.
- s. Back to camera profiles inside the basic panel.
  - i. To use this we need the color checker passport from X-Rite. You take a photo, in RAW, of the passport, making sure it takes up at least 25% of the image.
  - ii. To create a profile export your RAW photo of the passport as a DNG.
  - iii. Load this into the software from X-Rite called ColorChecker Camera Calibration. Let the software operate in auto. Once it has created the profile it will inform Lightroom that it is ready. Lightroom needs to relaunch to use this profile.

- iv. Now you can build out the missing color palette from your camera and make a selection of cameras all look the same.
- t. To have real success with editing, you will need to have a calibrated monitor. This allows you to see what your image actually looks like, not your monitor's interpretation.
  - i. Every monitor is inaccurate and needs to be calibrated with an external piece of hardware. I use the X-Rite i1 Display.
  - ii. The older ColorMunki pieces worked only with 32 bit graphics. So be careful.
  - iii. To use the software you only need to hang the hardware over the screen and run the software. It will build a monitor profile for you, which you can switch in and out of as you wish. Now you are viewing your images.
- u. Copy and paste settings
  - i. On left hand panel you can click on copy (after editing an image), choose the edits you want, select a new image, and hit paste.
  - ii. Or leave the image you want to emulate, click on the next image, and click on "previous" on the bottom right.
  - iii. If doing multiple image, edit the first, add selection of the additional images, and click on "sync" on the bottom right.
- v. ICC
  - i. Color space is a 3D interpretation of all the color understood by a given process (printing, monitor, etc.) A different color space has a different gamut of colors. So some colors will be in this gamut and other out. Please note that an image, a printer, and a paper can each have a color gamut. The color produced in the final image is the smallest common denominator of all three.
  - ii. Adobe RGB is a large color space but has limited usages (such as dye sublimation printers.)



- iii. sRGB is the most widely used color space, but is more limited. This is your monitor, most printers, and the color space of the internet.
- iv. ProPhoto RGB reproduces 99% of naturally occurring colors, but no monitor sees it and almost no printer prints it. This space is most commonly used to run editing softwares behind the scenes until a RAW image is exported and its color space collapsed into the other two.

### 3. Day Three

#### a. Spot edit [*Maroon Bells image*]

- i. Choose your brush type (clone or heal) to fix an area differently. Clone copies pixels from an area and you can adjust where the area is. Heal tries to recreate pixels from the surrounding area.
- ii. Using the bracket keys adjusts the brush size, so does adjusting sliders on the panel.
- iii. Feathering refers to the hard edge to your brush.
- iv. Opacity is how well we can see through the healed section.

#### b. Red eye button

- i. First select if this is a human or an animal.
- ii. Then move the cursor over the red eye to be adjusted.

#### c. Masks

- i. Click on “m” or click on the mask button below the histogram.
- ii. Add new mask
  - 1. Select subject (hawk quest)
    - a. This new feature uses machine learning to select your subject.

- b. Click on the mask to add or subtract.
- c. You can combine this with other masks for combined effects.
- d. After creating the initial mask you can invert it. If you adjust it and want to edit the remainder of the image then duplicate the mask, invert it, and edit it (this will be described below as well.)

## 2. Select sky (horse and rider)

- a. Use with the same tools described in the “select subject section”.
- b. Creating two masks, one for the sky and one for everything else, can increase the speed of your workflow.
- c. You can combine this with “select subject” and have as many masks as you want.

## 3. Brush

- a. Tool can be docked inside the panel
- b. Size is size of tool. Feather is the hardness of the edge. Flow is the rate of application.
- c. Hold shift to constrain the brush to a vertical line.
- d. Right and left bracket adjust size.
- e. Click on swatch to change color of overlay.
- f. Click “o” to toggle overlay on and off.
- g. After brushing an area you can click on erase on the mask panel and remove some of the

painted mask. Please note this does not appear in the “select subject” or the “select sky” mask tool.

h. Name a mask to find and adjust it easily later.

#### 4. Linear gradient (ship on lake)

- a. Click and drag to create the gradient.
- b. Middle pin adjusts where the control tool is and where the gradient falls.
- c. Bottom button rotates.
- d. Pins at top and bottom increase or decrease the length of the gradient.
- e. If you want to adjust the rest of the image separately you can duplicate the mask and invert it.
- f. To do this click on the mask, then on the gradient, then on the more icon (three dots).
- g. There you will find “invert”. You cannot invert the gradient inside the mask panel like before.

#### 5. Radial gradient (forrest scene)

- a. Drag the tool to create the size of the radial mask.
- b. Drag outer pin to change the size.
- c. Click on outer line to rotate the shape.
- d. Click the inner pin to adjust how hard the edge is.

#### iii. Color range (macro flower)

1. You can click on a color to adjust just that particular shade.
2. But this is more powerful by removing or adding a shade from another mask.
3. Hold the shift key to add up to 5 different colors.
4. Or click and drag to select a range of colors.
5. Once you have made a selection, a refine slider appears in the mask panel to refine your selection.

iv. Luminance range

1. Click on a value to select a range.
2. Adjust the selected range with the “refine” slider that appears.
3. Click on the mask overlay button to make sure the appropriate area is adjusted.

v. Depth range

1. Based on how close or far away portions of the scene are.
2. However, this is camera specific. Mostly, it works with certain newer iPhones. They must have embedded map data and as such we will not be covering this feature.

d. Exporting

i. Soft-Proofing.

1. Adobe and sRGB color space are used differently. The internet, computer monitors, specialized surfaces, and wet chemistry printers are sRGB.

2. Some monitors and dye sublimation printers are Adobe sRGB.
  3. Relative colormetric (smallest change) is the most commonly preferred method of dealing without of gamut colors.
  4. Perceptual (no clumping) is the alternative if your out of gamut colors cause clumping when using relative colormetric.
- ii. Exporting
1. Click on the export button in the library tool.
  2. Location will describe where the image will go. I prefer the downloads folder unless I have a specific alternate purpose.
  3. Adjust name to the purpose that you will have for it. Remember, we export a variant of an image so that we can use it. For this reason, you might have multiple exports of the same root image.
  4. File settings will include the file type, the size, and the color space (this is when color space is created in you file, not at the moment of capture, with RAW files).
  5. Watermark
    - a. Click on edit watermarks in the drop down panel.
    - b. Text is adjusted in the bottom left of the panel.
    - c. If you have an image you can upload it by clicking on a graphic watermark style at the top right. Otherwise it defaults to text.

- d. You can adjust the shadow of the text as well as its opacity and its placement in the frame.
- 6. Keep all metadata
- 7. Post processing: do nothing, you have edited within Lightroom already.