

Today:
Photo Hardware resources
Darktable/Photoshop/Gimp intro
More lenses

I'm preparing poll about how your classes are going so far. What questions should I ask? What would you like to be asked? In chat please.

Weather coming in! Watch the cloud progression.

Next Weds Video editing: Free, open source: <https://www.openshot.org/> Meh

"MiniTool MovieMaker | Easy-to-Use Free MovieMaker Software." Accessed August 26, 2020. <https://moviemaker.minitool.com/>.

DaVince Resolve: High performance, steep learning curve, free for individual use

Image-Vid 1 due Weds 9/9. *Vodnat David K*

Breakout rooms 3 minutes meet folks and to talk about your plans/progress.

Photography Hardware Resources

<https://www.colorado.edu/libraries/2018/08/28/mell-multimedia-equipment-lending-library>

Dslrs, video cameras, tripods, table tents etc for student to borrow nope
ITLL 2 week checkouts

Mohamed Adil- ITLL staff, can help

Rent macro lenses and other equipment: Pro Photo Rental on Arapaho

<http://prophotorental.com/>

Canon, Nikon, Olympus bodies and lenses. Also used equipment for sale.

Pro Photo Rental, Inc.
1644 Conestoga St, Suite 5
Boulder, CO 80301

From <<http://prophotorental.com/contact.asp>>

Victory Camera: Used and Vintage, buy sell trade.

<https://victorycamera.com/>

2875A 28th Street
Boulder, CO 80301
(720) 379-7789

*→ A) Have a camera
φ B) Need help getting a camera
→ C) in process buying*

Mike's Camera: Mostly new, some rentals, some used. Repairs. Will match online prices.
2500 Pearl Street

Boulder, CO 80302
Phone: (303) 443-1715
Email: store1@mikescamera.com
<http://mikescamera.com/>

New firmware for your Canon; allows much more control

<http://chdk.wikia.com/wiki/CHDK> open source

Canon Hack Development Kit

Mostly non-DSLRs

<http://www.magiclantern.fm/about.html> also open source

"Magic Lantern is a software enhancement that offers increased functionality to the excellent Canon DSLR cameras. We have created an open framework, licensed under GPL, for developing extensions to the official firmware." built in intervalometer (for time lapse). Motion detection trigger, HDR

Software: Photo editing programs

Poll

- 8 A) I will work with Photoshop
- 0 B) I will work with Gimp
- 1 C) I will work with some other program
- 4 D) I am comfortable with ABC but want to hear about Darktable
- 1 E) I don't know any photo editing program

Most image processing software will be adequate for this course: crop, brightness, intensity, spotting

Buy Photoshop subscription: CU does have a special price for students.

Other options: previous versions of PS on eBay etc., but can't open newer camera RAW files.

Photoshop Elements: \$60, probably adequate for this class.

Adobe Lightroom: not as powerful as PS, is designed for professional photography workflow, making same changes to many images at once.

Gimp: Online, open source image processing software. Free. User interface a bit clumsy, slightly tricky to save in non-Gimp file formats. Does not open raw files

Affinity Photo. Forever license \$50

Photopea: cloud computing editor. Free? Doesn't show high resolution version locally well.

Darktable: demo today.

Topics in Darktable that we'll cover today:

- 1. File formats
 - 2. Desktop nav
 - 3. Contrast
 - 4. Crop tool
 - 5. Retouch/Clone stamp
 - 6. Filters, sharpen
- Weds* (with arrow pointing to items 2-6)

1. File Formats

 filetypes

	Still images, 3 files			Video		
	Original = straight from the camera. Do not edit or change file type	Edited Archival	Edited for posting	Original clips	Edited Archival	Edited for posting
Submit to	Canvas	Canvas	Flowvis.org	None	Canvas	Youtube or Vimeo
File type	As shot, preferably in camera raw format: NEF, CR2, HEIC etc.	.psd, .tiff or .png. Choose zero compression.	.jpg, with at least 90% quality	none	mpeg. Must include title clip <i>mp4 ok</i>	mpeg. Must include title clip
Resolution	As shot, as high as your camera is capable of	As shot, minus cropping	Max 1300 px wide	none	Maximum, as shot	Max is recommended

*Your name
Name
Date
ack
music
license*

If assembling a video from multiple still images, upload a representative raw image along with edited final video.

Why does archival version have to be non-lossy?

Jpg loss example:

http://cscie12.dce.harvard.edu/lecture_notes/2011/20110309/slide4_2.html

shows effect of low 'quality' settings. Similar artifacts to repeated compression cycles

camera

Most DSLRs and mirrorless offer a 'raw' format: NEF, CR2 etc. These contain the maximum information. Use this if available!

Most other cameras store images as jpg only. Every time you edit and then save a .jpg, it compresses the image again, and you lose information because jpg compression is *lossy*. Open in whatever, then edit and **do not store as jpg again until posting!** Instead, store as a non-lossy format: PSD, Photoshop's native format or .XCF, in Gimp. Darktable doesn't affect original images, and only stores your edit information until you export at the end.

DON'T use Photoshop RAW. Metadata is lost; images can't be opened.

Camera raw formats, like NEF, CR2 etc, are Ok for original images.

How vis. org

For uploading to Wordpress: YES save as jpg, max width 1300 px for landscape image. For portrait orientation image, make into a landscape format: save as 1100 wide by 900 high, with extra space on sides in a dark neutral gray. Our Wordpress theme, Impreza is 'responsive', resizes image for each device, but makes portrait orientation images too large and low res when selected as featured image for a post.



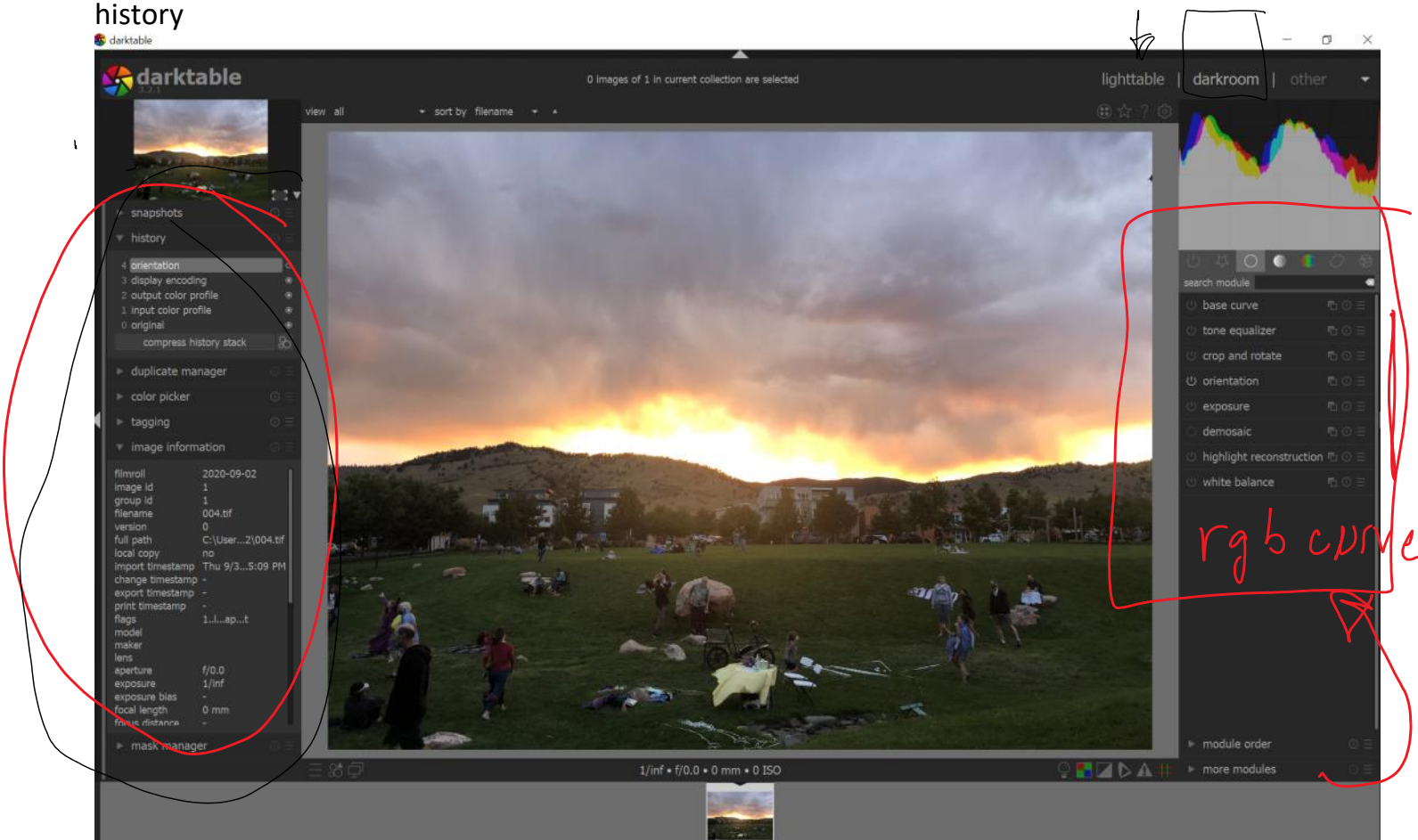
Gimp and older Photoshop cannot open camera raw formats. You will need a conversion program of some sort.

Darktable can open camera raw formats, even new ones. Exception: HEIC, found on cameraphones. You'll need a conversion program to prep for an editor. Try Irfanview.

Do not import from camera directly into a photo program; it will convert files automatically, and you could lose the original metadata. Instead, try plugging your camera or SD card from the camera into the computer, then drag files from camera to hard drive.

- In PS: File > Save As → psd xcf
- In Gimp: Export
- In Darktable: Export module

2. Desktop nav: menus, tools/filters/modules, toolbar info, history





got to here

