

# Photography course

*(Back to basics)*

Session 2 – Post processing

Bob Breach  
Autumn 2021

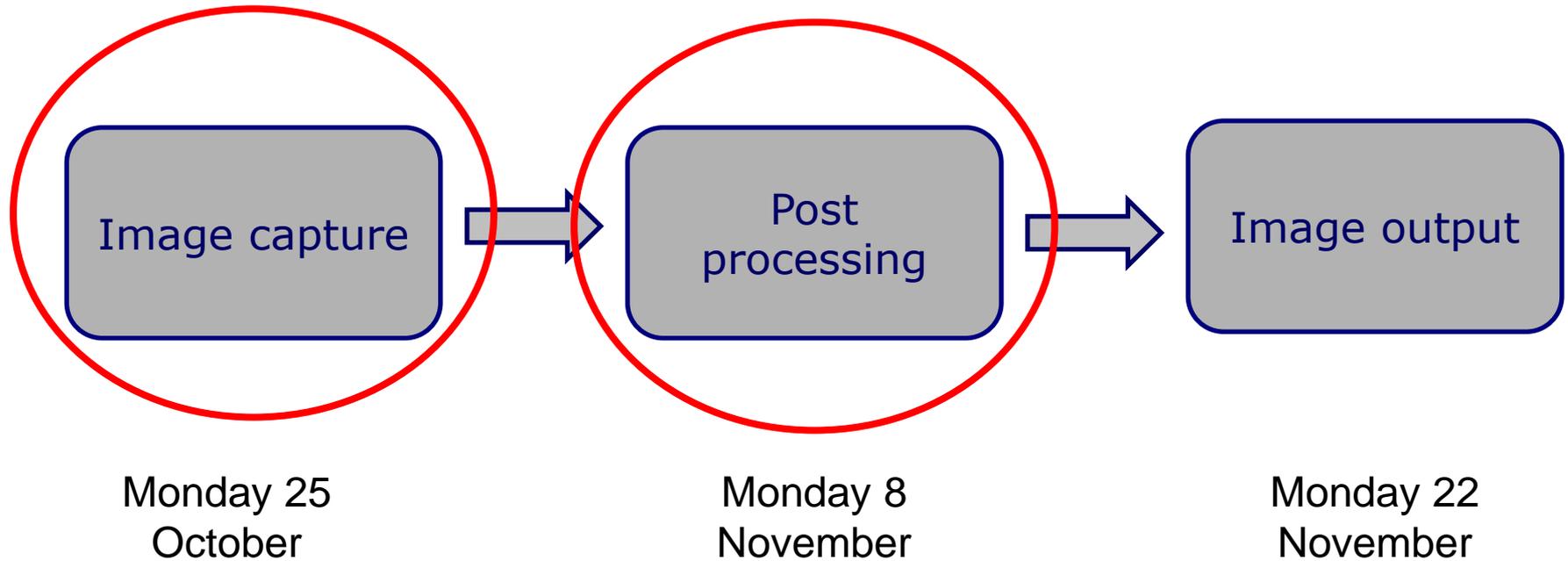
Aimed mainly at those members with less experience but may also act as a refresher for others

# FORMAT OF WORKSHOPS

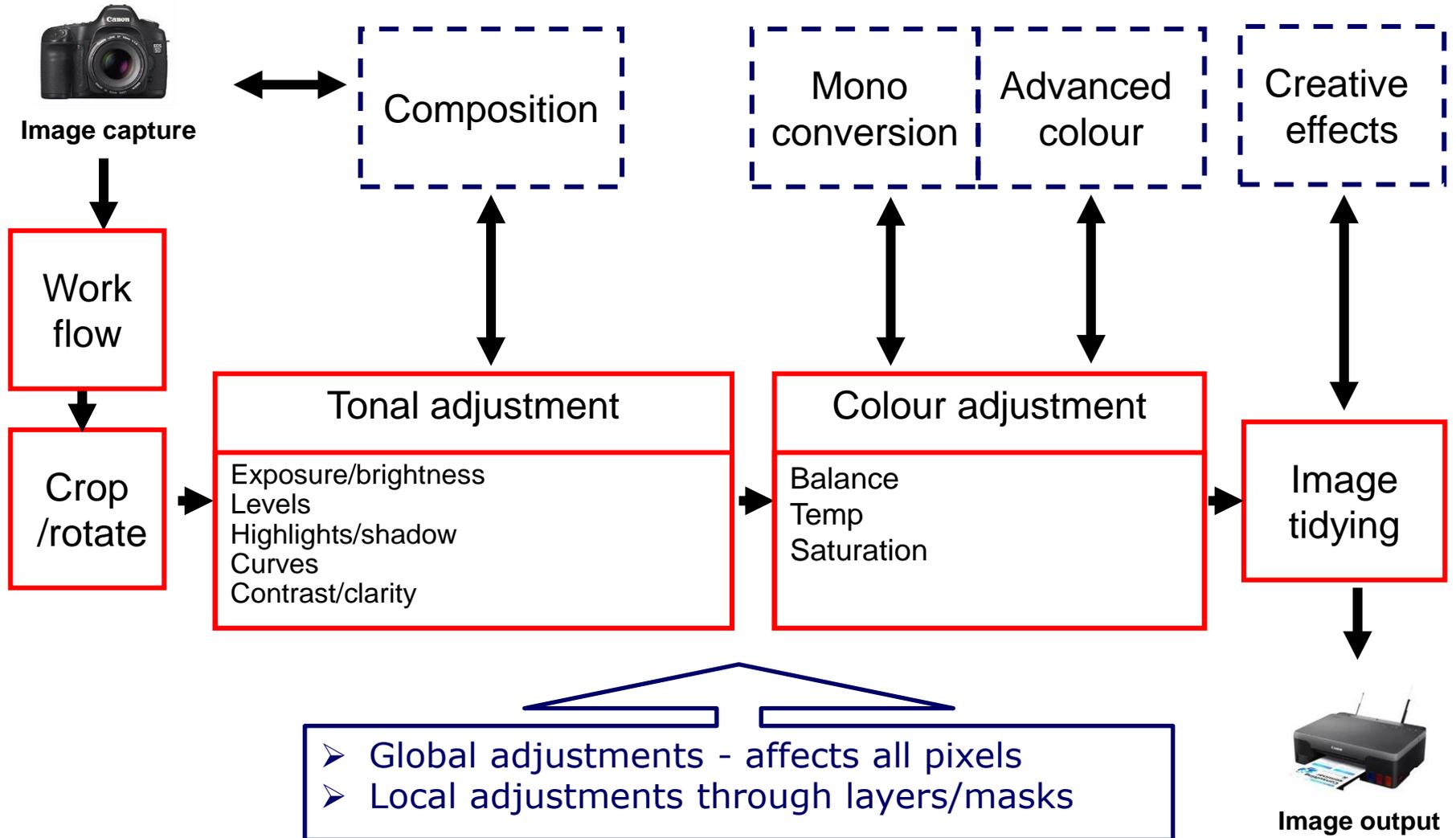
- Aim to go through the basics of each topic using slides which also act as notes
- Very informal so plenty of time to ask questions or raise issues
- At the end a few suggested tasks to try at home to test the theory
- The tasks can be reviewed if you wish at the beginning of the next session

*Any questions or follow up from last session  
- Image capture*

# PHOTOGRAPHY COURSE (BACK TO BASICS)



# POST PRODUCTION SEQUENCE





Post production  
- Workflow

# POST PRODUCTION WORKFLOW

- Any activity involves a series of processes with inputs and outputs - workflow
- Workflow and process analysis used a lot in business to improve quality and efficiency
- Photography is no different - analyse your workflow to see where delays or quality can be impacted
- Improving your photographic workflow can
  - Save time and reduce wasted effort
  - Improve image quality
  - Allow more time for creating images
- Look at each stage to work out:
  - Which steps are most time consuming
  - Where does quality suffer most
  - What can be done to improve through better process or new software/hardware

# BACK UP, BACK UP

***Golden rule - have all your files stored on at least 2 separate media***

- In the field have plenty of cards, but when away back up onto portable hard drive or to a laptop if you can
- Regularly back up at home
  - To cloud and/or external hard drive(s)
  - Ideally have at least one drive kept in a different place
- Recovery of files from damaged media is possible but very expensive and not guaranteed

***Storage media are getting cheaper by the day - Ignore back up at your peril***

# UPLOADING IMAGES FROM MEMORY CARD

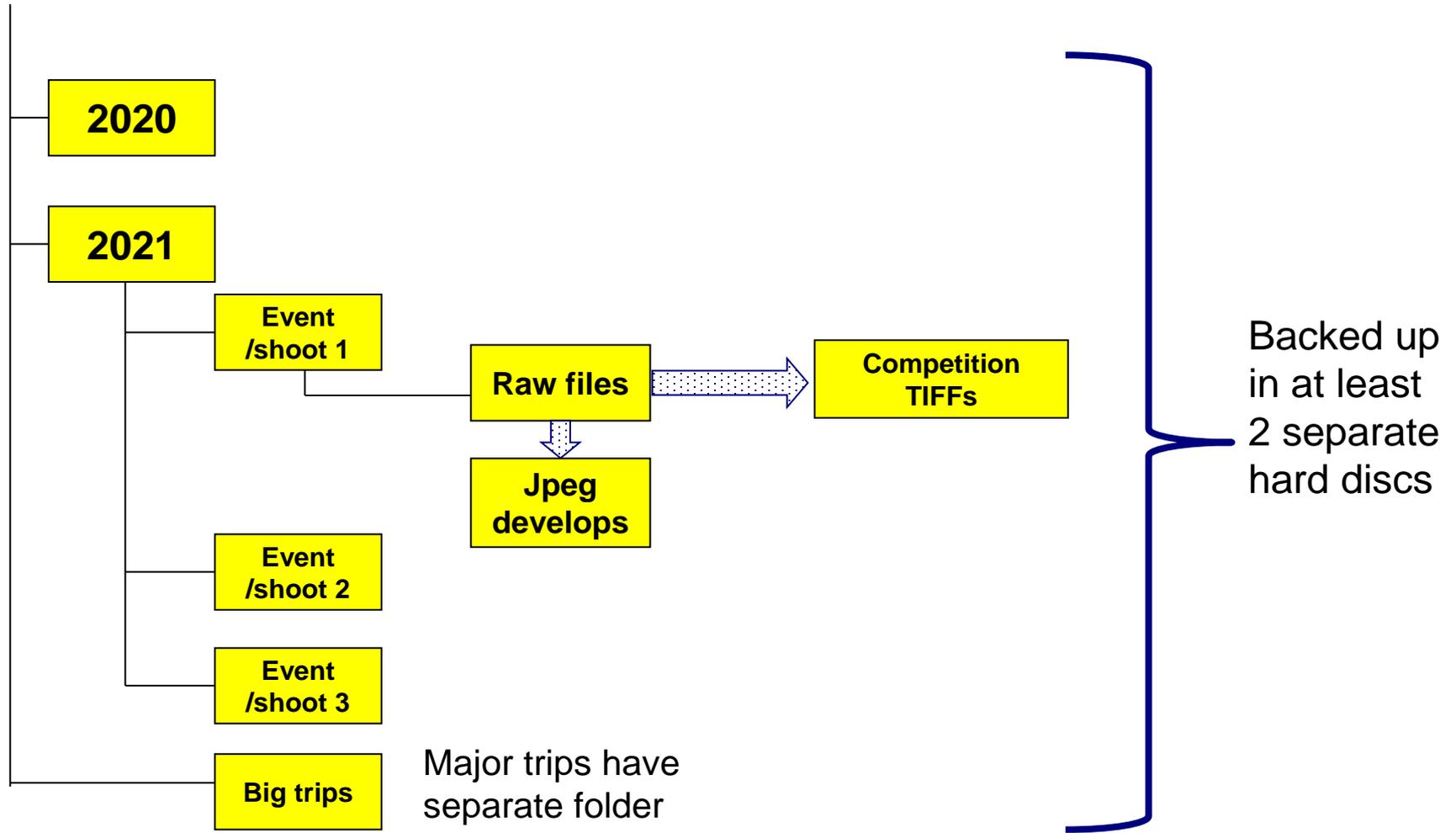
- Need to transfer images from card to computer for processing
  - USB connection to camera (sometimes slower)
  - Card reader either built in to computer or plug in
  - Use USB 3 or other fast connection if available
- Some software allows to you manage uploading
- Or simply “drag and drop” from card into folder on computer



# STORAGE AND INITIAL SORTING

- File storage is very much a personal thing
- Depends on: Number of images; power of computer; preferred workflow
- There are a number of commercial programmes for image management and many allow various image tagging options
- Only you can decide, but for example my personal approach is a simple file storage system i.e.
  - Examine in raw viewer
  - Delete rubbish pictures
  - Tag or rate picture (range 1-5)
  - Process best (5\*) in raw converter
    - Majority as medium resolution jpegs mostly without any further image manipulation in PS
    - Output best images for competition as TIFFS into separate folder with further image manipulation in PS if necessary

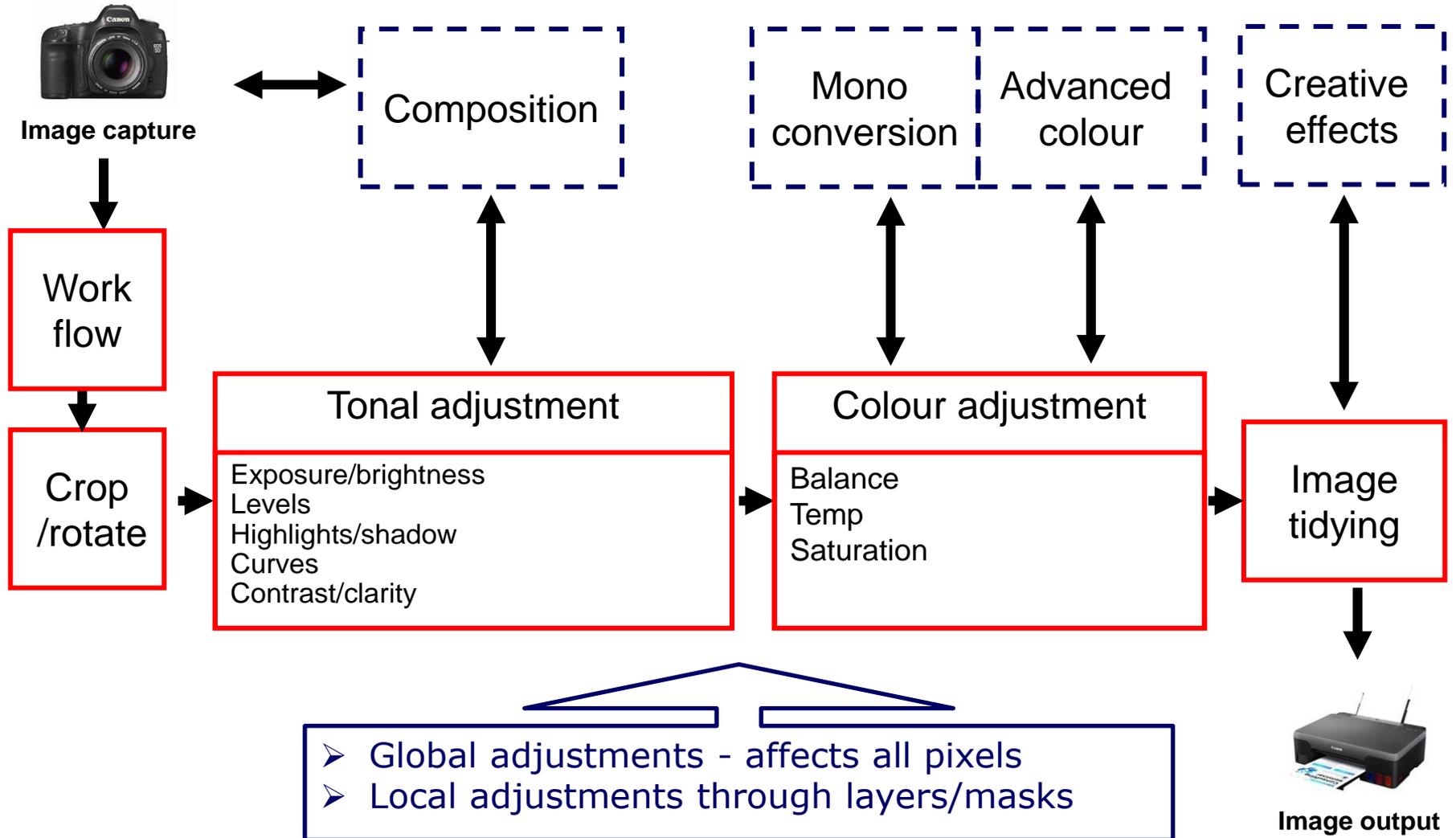
# MY STORAGE





Post production  
- General

# POST PRODUCTION SEQUENCE



# WHICH SOFTWARE ?

- Depends on your personal preference and type of photography
- Ask around colleagues and learn from workshops to find best for you - before you buy consider free trial versions
- Wide range of software available- most now work with raw and jpeg/TIFF files but in different ways.
  - e.g. Lightroom, Adobe Elements/CS, On One, Affinity, Capture One, Nikon NX, Canon Raw
- Specialist software for certain applications e.g HDR, stacking
- Whichever you use make sure they work together seamlessly with no wasted effort

*In your software see if you can personalise all your favourite tools so that they are logically arranged on your post processing desktop screen*

*Most post production software has similar tools but the names and the way they work vary. Not possible to demonstrate all tonight so check what you have and how they work*

# WHOLE IMAGE OR SELECTIVE MODIFICATION

- All software allows you to make corrections on the whole image
- But better effects can often be achieved by making selective adjustments to only part of the image
- The way to do this varies between software but typically
  - Using masks/brushes to highlight certain areas and then applying the adjustment just to this part of the image
  - In PS creating a new layer to which the correction is made and then using a mask to selectively change which bits of the image the adjustment applies to

# VISUALISING YOUR IMAGE

- What did your eye “see” when you took the image
- Does the file from your camera reflect this
- Will the viewer see what you saw (or thought you saw)
- How can post processing better meet what you want the image to convey
- How can you improve the composition and impact of the image



Post production  
-Crop/Rotate

# CROPPING AND/OR ROTATING

- Cropping and/or rotating the image can:
  - Improve composition
  - Remove distractions
- However make sure that you have sufficient pixels left for adequate image quality
- Make sure horizon is **straight**
- Crop and/or rotate image
  - Think about best place for the main subject (rule of thirds?)
  - Where the horizon should be (not centre of image?)
  - Remove boring or too contrasty skies
  - Would the image be better reversed (assuming no writing)
  - If small parts of the subject are "chopped off" then consider more severe cropping to make this look deliberate
- For converging verticals, consider correction if you have the right software (unless deliberate)

*Can also clone out messy distractions at this stage (or see later)*

# CROP AND CLONE 1



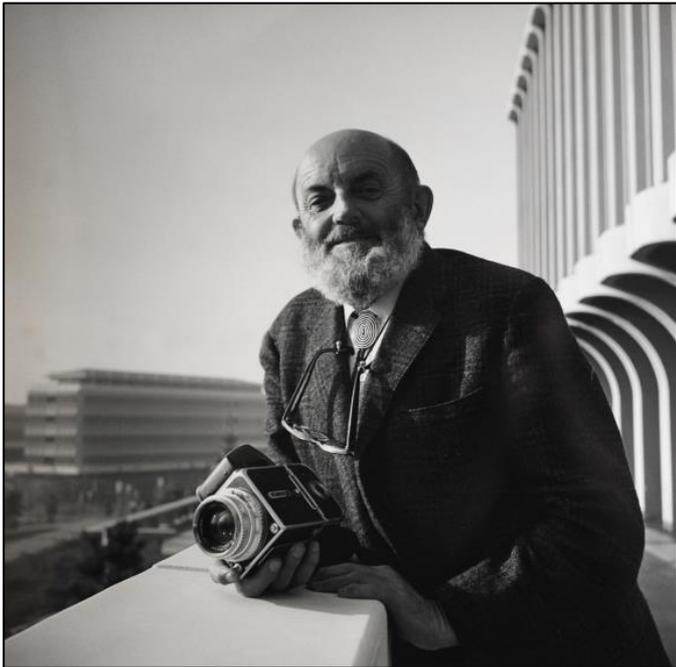
# ROTATE, CROP AND CLONE 2





Post production  
- Tonal adjustment

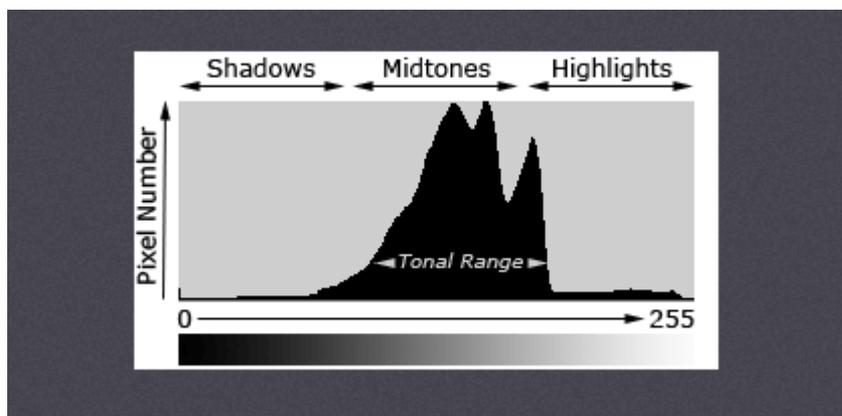
# ANSEL ADAMS WAS THE MASTER OF TONAL ADJUSTMENTS



- Ansel Adams is well known for spending a whole day in the darkroom, just to produce one print.
- 50% of his creative process occurred in the Dark Room
- He pioneered the zone system, which we loosely know today as burning and dodging. He would paint onto the enlarger the areas of the photo he thought should be darker or lighter than others.

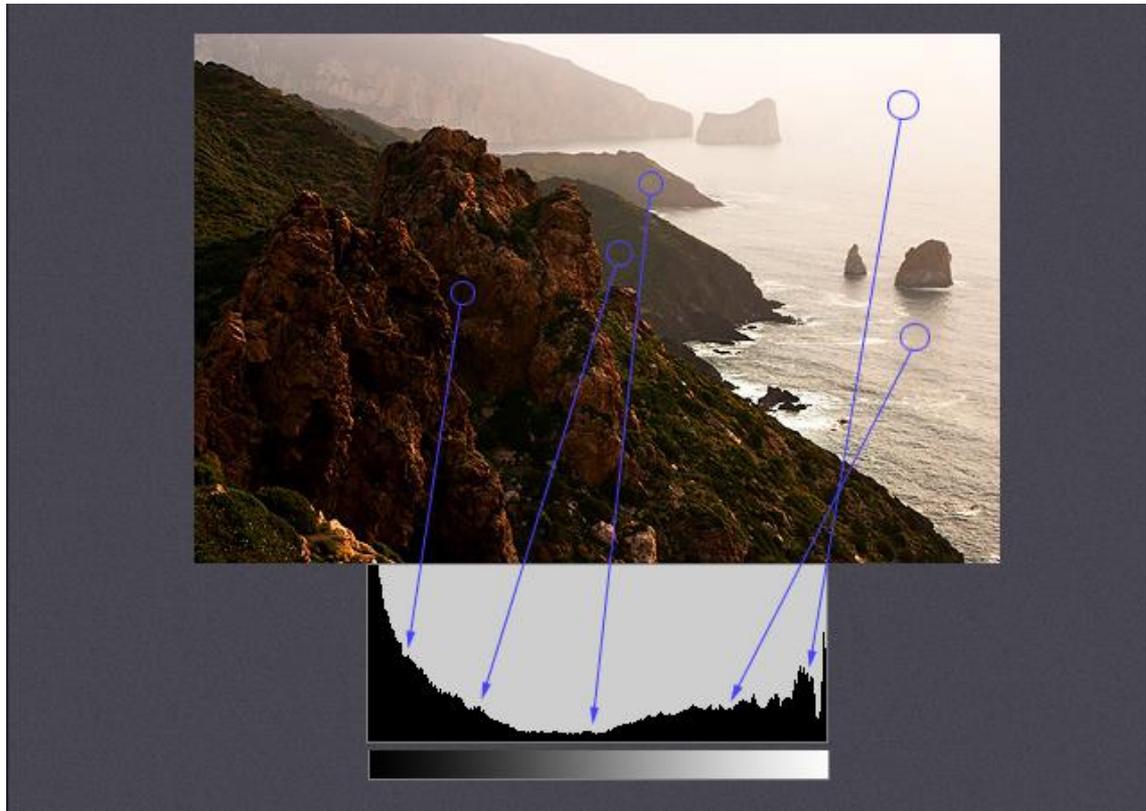
*“Dodging and burning are steps to take care of mistakes God made in establishing tonal relationships.”*

# IT'S ALL ABOUT THE HISTOGRAM



- The histogram helps you understand your image
- Shows distribution of light and dark pixels
- Each pixel has a brightness level from 0 (pure black) to 255 (pure white)
- Critical in making post production changes

# HISTOGRAM ILLUSTRATION



Example showing how the tonal values of each part of the image match to the histogram

# USING THE HISTOGRAM



*Note that sometimes you may wish to have low key image with pure blacks for drama or silhouette effects*



*The normal "ideal" exposure*

*Note that sometimes you may wish to have high key image with pure white for soft effect*



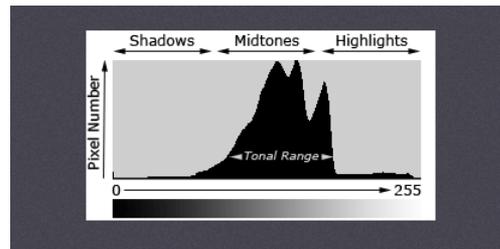
# TONALITY ADJUSTMENT TOOLS

Exposure/  
brightness

Levels

Highlights/  
shadows

Contrast/  
clarity

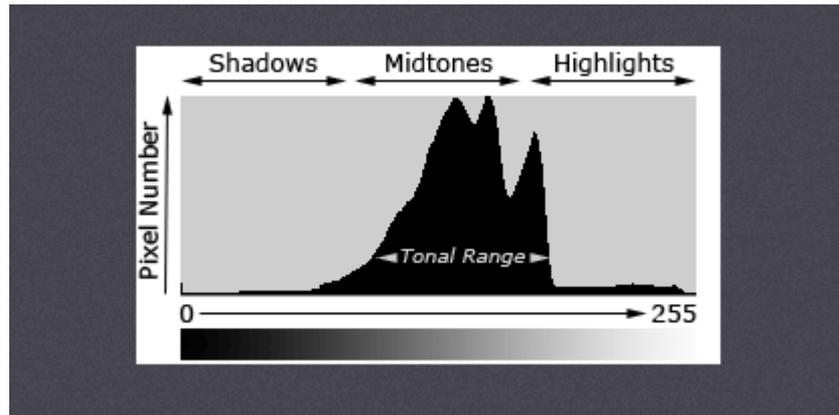


Curves

Vignetting

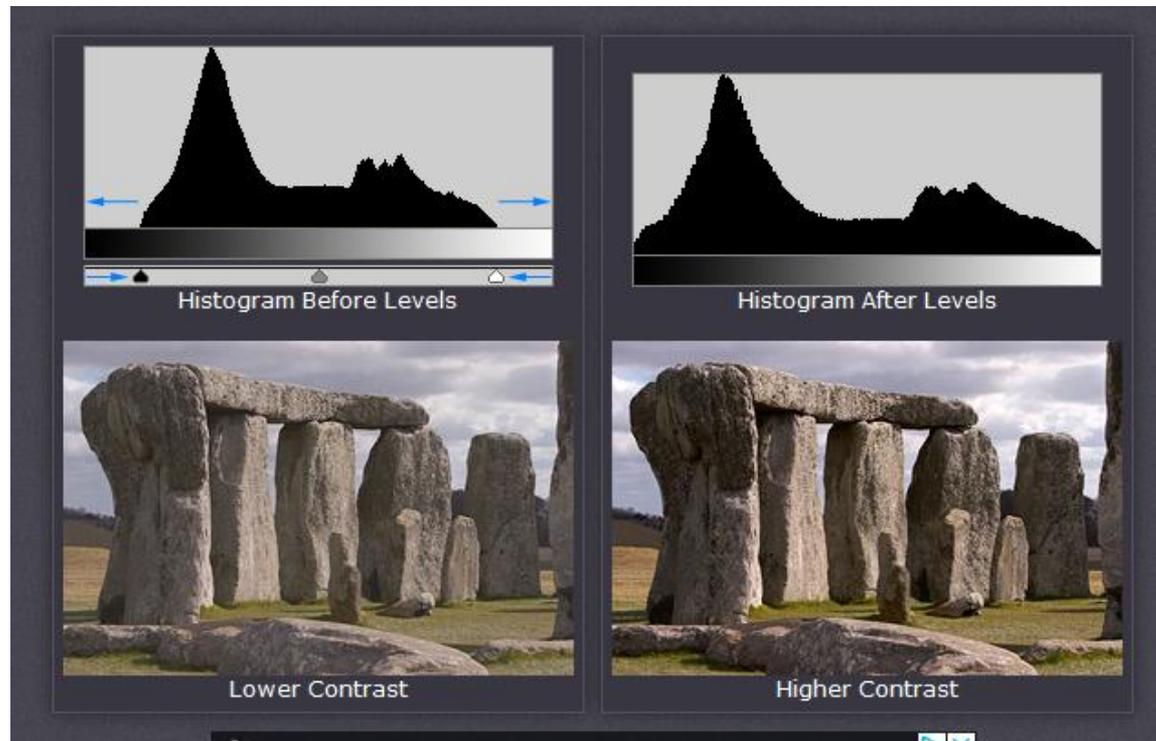
A variety of tonality adjustment tools which all interact with each other

# EXPOSURE/BRIGHTNESS ADJUSTMENT



- Exposure slider essentially mimics what happens in camera. It scales the settings up and down by a constant factor
- Brightness adjusts mainly the midtones but preserves the highlights better than simply changing the exposure. It tends to improve the midtones better compared to just changing the exposure

# LEVELS ADJUSTMENT



- The levels tool allows you to “stretch” the histogram thus gaining a whole range of tones from pure black to pure white
- Can also change the midtones
- Creates a more dynamic/contrasty image
- In some software called simply “white/black” tools

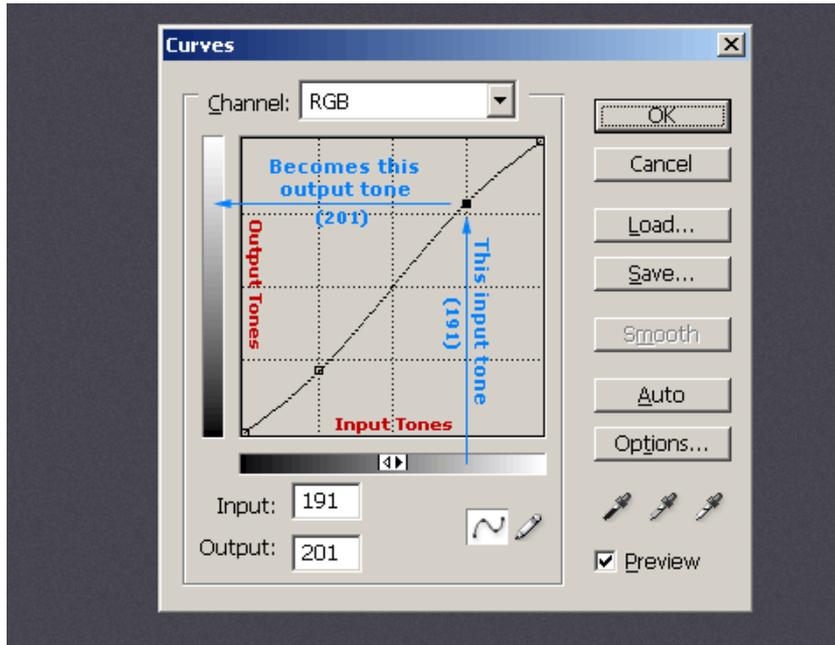
# HIGHLIGHTS AND SHADOWS

- Often has different names in different software e.g. fill light/recovery
- Tool only works for RAW but allows you recover details in
  - Bright highlights
  - Deep shadows
- To some extent can also do in PS using layer with less exposure (or dodge and burn tool)
- Most software has option which allows you to show burnt out areas of image
- Benefits for image
  - Completely burnt out areas rarely work well (unless intentional e.g. high key pictures)
  - Improves blocked out shadow areas (i.e. solid black) again unless intentional silhouette effect
  - Bright areas which take the eye away from the main subject, particularly at the edge are generally not a good thing

# PUNCHY OR SOFT

- Depending on the subject, some images work best with more punchy dynamic look whilst others work better if softer
- Use various sliders to see how the image can be enhanced through
- Levels (see earlier) to:
  - Use whole range of tones from black to white
  - Modify mid tones
- Curves (*not in all software*) or layers/layer masks to:
  - Selectively brighten or darken certain tones within image
  - Add contrast with S curve
- Contrast and clarity – positive or negative?

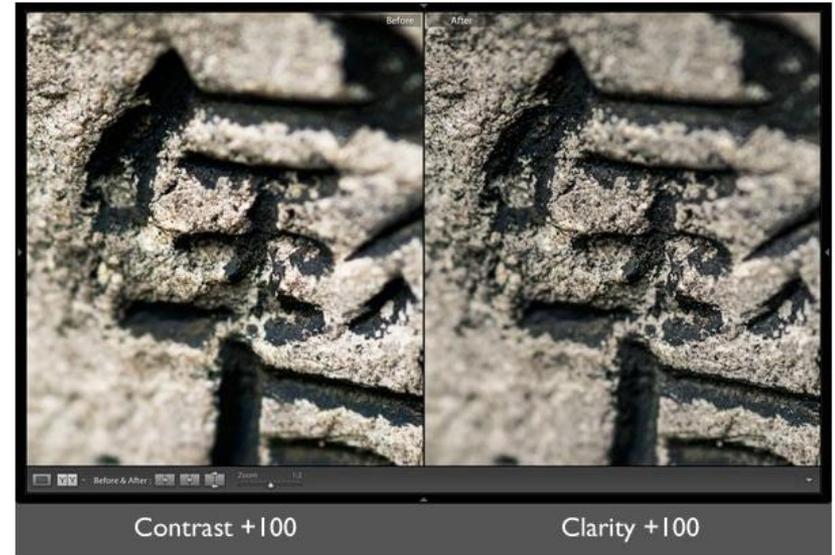
# CURVES ADJUSTMENT



- The levels tool only allows changes to:
  - Black point
  - White point
  - Mid tone (grey)
- The curves tool allows you to selectively brighten or darken any particular pixel brightness value
- Can adjust tonality of all colours (RGB) or selective colour channels
- An S shaped curve can give added contrast to the image

# CONTRAST AND CLARITY

- Contrast darkens the shadow areas and brightens the highlights
- Clarity is a more subtle increase in micro-contrast by working more on mid tonal values
- Different names in other software e.g. vibrance
- Both can increase drama and mood and be a creative tool at extreme values
- Negative clarity can be used to soften an image



Clarity tool can bring out texture better than contrast

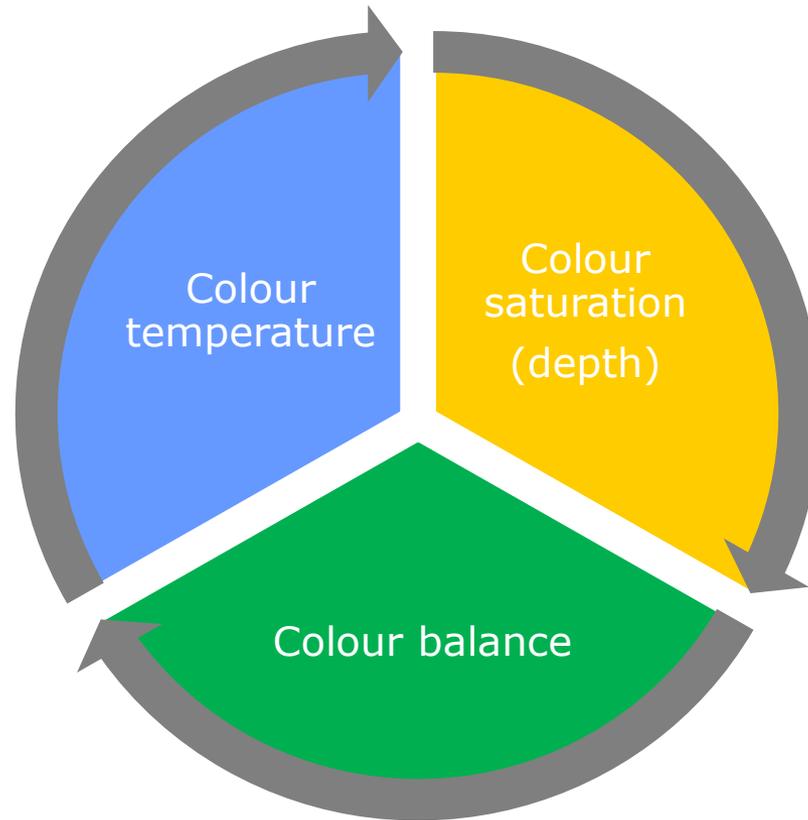


# A DEMONSTRATION



Post production  
- Colour adjustment

# THE MAIN ELEMENTS OF COLOUR MANAGEMENT



# MANAGING COLOUR TEMPERATURE

## White balance

- The time of day (with natural light) or type of artificial lighting (indoors) can impact on the overall warmth or tone of an image
- On a digital camera you can:
  - Set an appropriate colour (white) balance appropriate to the conditions (shade/daylight etc.)
  - Leave camera on fixed (e.g. 5200 K setting)
  - Leave camera on auto white balance
- Auto white balance usually easiest unless for example you want to take dramatic sunsets or very accurate colour
- Where necessary in post processing for raw files you can:
  - Use the temperature slider to adjust colour temperature
  - Or use white balance colour picker to get neutral tones



# ACCURATE WHITE BALANCE



- For really accurate colour (white) balance e.g. for product shots or at weddings you may need to use a “grey card”
- This is a neutral coloured card which you include in a trial shot
- In post processing you can then bulk edit the white balance for all other images taken under the same conditions

# AN EXAMPLE



- Depending on the raw software you use you should have a “white balance” eye drop picker
- Use this to pick on a suitable neutral tone in the image and check the result.
- May have to choose different points in the image to get right
- Can also use to change the “time of day” or to improve sunsets!

# HOW TO CHEAT THE TIME OF DAY

- You often cannot recreate the misty soft effect of the golden hour but changing the colour tone of the image may help
- Only applies to raw files but several software packages have the ability to change the whole colour balance of the image to enhance the mood
- Or simply try changing the colour temperature



Original file



Cool image



Warm image

# MANAGING COLOUR DEPTH

- The depth of colour (saturation) can significantly impact on how an image is perceived
- High levels of saturation are bold and punchy
- Low levels of saturation can provide a soft subtle image
- Sometimes just a little colour can be used to emphasise small tonal differences within the image
- Complete desaturation (a monochrome image) works best when there are significant tonal differences within the image
- Use the saturation slider to adjust the depth of colour
- Contrast (+/-) can also emphasise the degree of saturation
- Can also just adjust a part of the image using layer masks

# AN EXAMPLE

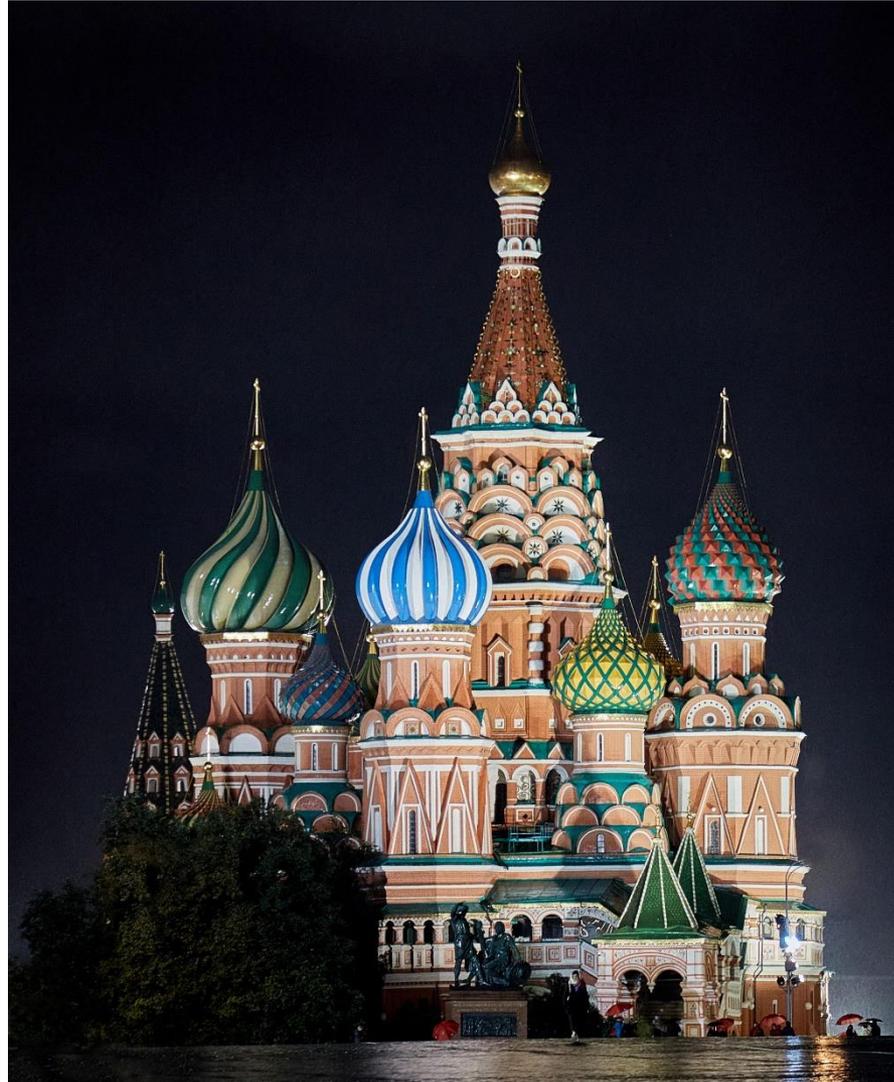


Desaturate whole or part of image to give different moods

# MANAGING COLOUR BALANCE

- Depending on your software you can significantly alter the colour balance (tone or hue) post processing
  - The whole image e.g warmer/cooler tones or to remove colour cast
  - Selective changes to certain colour tones within the image
- Use with care or you can get some weird effects (unless this is what you wish!)
- Some software has special tools for this
- In PS use new layer and adjust colour tone through
  - single colour tone
  - colour balance tool
  - hue/saturation layer tool
  - gradient mapping (maps grey tones and then adds colour)
- You can then moderate the extent of the changed colour tone by blending between the two layers or use different blend modes

# AN EXAMPLE





# MONO CONVERSION ?

- Not covered tonight but sometimes images work much better as mono



Post production  
- Image tidying

# IMAGE ANALYSIS

- Look at your image and ask what is the main subject?
- Does the eye automatically focus on and come back to this?
- If not why? What is distracting the eye away from the subject?
  - Are there bright spots which draw the eye towards them rather than the subject?
  - Are there visible dust spots, particularly in plain areas of the image?
  - Is the background messy so that it competes with the main subject?
  - Are there small objects or areas which distract from the subject (e.g. poles or wires)?
  - Are important parts of the subject (e.g. hands or other body parts) cut off by mistake?
  - Are there strong colours in the background (e.g. red object) which draw the eye away from the subject which might be a more muted colour?
  - Are there large areas of blocked out shadows which are not contributing to the image?

**Watch out for obvious “judge bait”**

# REMOVING DISTRACTIONS

- Train yourself to identify and eliminate distractions at the point of capture – sometimes small changes in angle of positioning of the lens can make all the difference
- However, in post processing there is much that can be done to remove or minimise distractions
- Use clone tool to remove small distracting elements or dust spots
- Larger areas can be covered by cutting and pasting a new layer from another part of the image

**Whatever isn't *adding* to the photo is taking away from it.**

# TOOLS AVAILABLE

- Cropping/rotation
  - Covered earlier
- Clone tools
  - Remove the distraction by cloning
  - Note that these vary between software and software version
- Layer masks
  - Soften or reduce contrast/saturation of messy background
  - In extreme cases move subject onto a new background altogether
- Convert to mono
  - This may eliminate otherwise distracting strongly coloured objects in the background

# CLONING IN PHOTOSHOP

- PS has a number of cloning tools, but these vary with version
- Other software may also have cloning options
- Cloning basically allows to copy pixels from one part of the image to another in order to remove unwanted elements of the original image
- Clone stamp tool
  - One of the more useful tools
  - Choose right brush size/hardness ( Note [ and ] change size quickly)
  - Choose source area (hold alt/click) – note cursor changes to cross
  - Release alt key, move cursor and paint into new area
- Healing brush tool
  - Uses context sensitive approach to try and match surrounding area where object being removed
  - Spot healing brush is good for small quick clean ups
  - Healing brush ( or patch tool) can handle larger areas

**Other software often has similar cloning tools – check yours to see what is possible**

# CLONING TIPS

- There are lots of optional features in PS clone tools- stick with the basic ones first
- Always clone on a copy layer (or more than one if complex)
- Zoom in close when cloning small areas
- Use soft edge brush to blend more easily but make brush harder near defined edges
- Do easy cloning first and then decide whether the trickier cloning is really needed
- When dealing with patterns choose pixels from the area which best matches the target area
- Watch out when dealing with lines that these match
- Try not to select from adjacent areas – pattern repetition is giveaway



And finally !!!



When you think you have finished

Put the image aside for a few days and  
then come back and look at it again  
with a critical eye

# THINGS TO TRY AFTER THE WORKSHOP

1. Assess your workflow and file storage to see if any quick improvements can be made
2. Check what post production tools available in your software
  - a. Review in which order you adjust your image and which tools work best for you
  - b. Play with the various tools on different images to understand how they work interact with each other
  - c. Practice so that the use of right tools becomes second nature
  - d. Can you rearrange your desktop in your software so your main tools are more easily available

# PHOTOGRAPHY COURSE (BACK TO BASICS)

