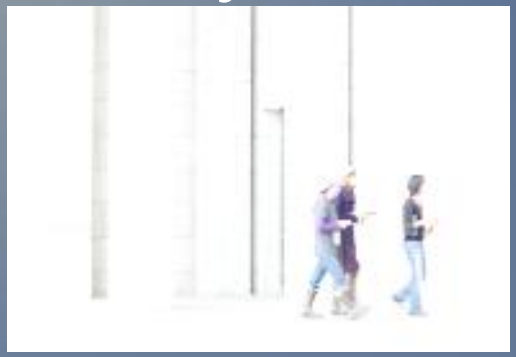
Why RAW?

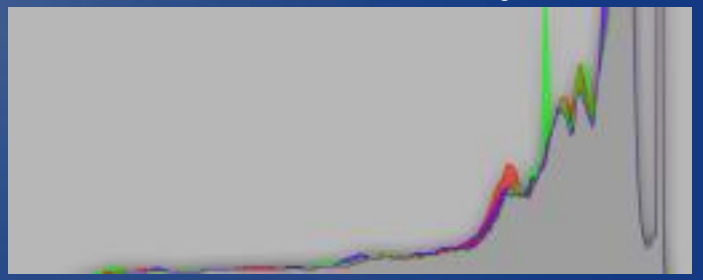
- Ultimately: recover more data



- Original
  - → Blown & over exposed

- Jpg
  - → Recover some but contrast destroyed

- Raw
  - → Recovery of all over exposed portions



JPG

- ✔ Smaller – more per card, faster in computer
- ✔ Any program or editor
- ✔ Ready to publish or share right out of the camera (photojournos, reporters, sports etc shoot jpg)
- ✔ At smaller sizes, prints are just as good

- ✗ Lossy – loose data every time you save
- ✗ Less detail (8 bits per pixel)
- ✗ Out of camera – jpg converter setting

RAW

- ✔ Much more data – 12-14 bits per pixel
- ✔ Recover more high-lights
- ✔ Editable more than once (if destructive editor)
- ✔ Better for really large prints

- ✗ Burst modes shoot less
- ✗ Format may become unsupported in the future
- ✗ Big – 50D 7MB for large fine Jpg, 20MB RAW
- ✗ Requires converter or enabled programs
- ✗ Slower due to size of file – computer, camera
- ✗ Must be converted before publishing/sharing

SUMMARY

- Shoot RAW if:
  - You don't get it right in-camera
  - You want to fiddle/postprocess a lot
  - You really need that extra ½ to 2 stops of highlights recovered
  - You want to be with the 'in crowd': Oh, I shoot RAW.
  - Your computer/camera is fast and you have lots of storage
  - You have time to edit
  - You don't need to publish photos NOW

And of course nothing is ever simple

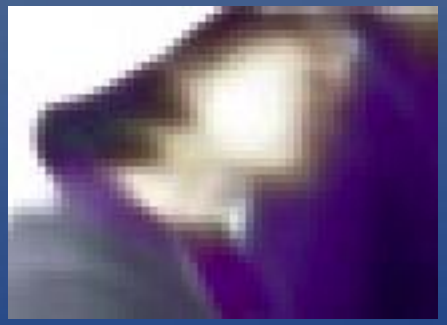
- Keeping it simple, do not read further
- None of what was just covered is incorrect
- However, there are 'complicating' facts:
  - Non-destructive editors allow post processing on jpgs without opening/saving the files until they are exported at the end (Aperture, Lightroom)
  - Many cameras have built-in styles (eg sepia) that require no post-processing, making jpg even more attractive

Nothing is ever simple – Part 2

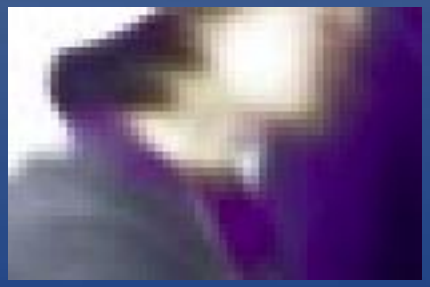
- Many cameras can save an image as RAW and jpg at the same time: RAW for those files that need it and jpg for immediate use. Downside is even more space required.
- All cameras that save to jpg are doing post-processing using the in-camera jpg engine. Many cameras have the ability to apply styles, as well as to edit the rules for those styles, before taking the picture: sharpness, saturation etc
- The image on your camera's screen is a jpg using the internal engine – even if you are shooting RAW
- Most RAW editing programs do not initially display your photo with the settings you were using B&W for example – you still need to edit the raw file

Nothing is ever simple – Part 3

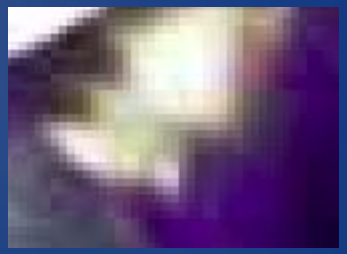
- Jpg has the ability to save at different 'quality settings' ranging from 1 to 10. The higher the number, the more data/better quality but also the bigger the file. Example:
  - A 'large fine' jpg from your camera is a '10' at 7 MB
  - Save that at an '8' and the file will drop to about 1-2 MB
  - Save as a 3 and the file will be about .1 to .2 MB
- Some programs can save jpg at 11 or 12 (Aperture, Lightroom, Photoshop). These reduce the amoint of data lost, to the minimum. Files are slighty larger



Q10



Q8 : very good



Q3 bad pixelation
and colour distortion