

TECHNOLOGY DIARY

Producing radio with the XLR:

- Shure Mixer and Mc Demonstration:
- Radio mic is the best mic for a noisy situation.
- Difference between track and channel:
- two channels
- tracks are the soundwaves
- 44kHz is CD sound but this is very high quality. 12bit sound has less samples, so it has less information when it is edited. Premier Pro ups the sound but it still has limited information.
- The 3 mics...primary sound, supporter of primary sound and bird sound.
- Shure mixer: pan situation...crucial in 3inputs and 2 outputs.
- Lapel = analog
- Radio = transmitters
- Bass Cut Pot = front part.
- 20dB attenuator reduces the noisy sound and takes the specific mic sound as the norm.
- Need to set the limiter on the XL1 menu and the mixer.
- Lapel mic can either go straight into mixer or into camera, therefore either cable or wireless.

Shure Mixer:

- Allows for three audio inputs; however there are only two audio outputs, as in two different channels.
- When using the stereo 16kB recording, there are two audio tracks, as in left and right.
- Therefore, the XK1 has the potential to have four audio tracks.

- The shure mixer corresponds with the two tracks and we then have the ability to pan the sound which then allows it to put out stereo sound.
- It is important to take note of one's environment when recording with the various microphones, and adjustment is particularly easy using the shure mixer. When in a room with the potential for echo, it is imperative to use the radio microphone at a smaller distance from the mouth, while either turning the rifle mic off or ensuring it is capturing sound from outside of the room. In a crowded area the radio or lapel microphones are optimal.

Depth of Field:

- A great depth of field means that there is a large area in focus, a shallow DoP means that a specific area is in focus while the rest is blurry.
- There are three ways to manipulate DoP 1) adjust the iris 2) focal length 3) adjust the camera to object distance.
- IRIS: controls the amount of light entering the camera. the f-stop 2 is to increase the amount of light entering the iris, whereas the f-stop 16 decreases the amount of light entering the iris.
- F- stop is the measurement indicating the width of the iris.
- The larger the iris opening the shallower the depth of field. The smaller the iris opening, the greater the depth of field.
- Focal length: the distance from the optical centre of the lens to the front surface of the camera's target measured in mm. changing focal length is known as zooming.
- Zooming in = Shallow depth of field
- Wide angle = great depth of field
- For movement, low shutter speed is optimal.
- Using the shutter speed for depth of focus is the last point of call, however.
- It is important to remember that practice makes perfect and one must learn to adjust the zoom without going the opposite way first.

Cables:

The cables that we used can be categorized into either digital or analogue.

- Kettle Plug: a cord that control the carrying of information.
- BNC: this is a professional cable that carries video signals only.
- RNC: is not a professional cable and can carry both video and audio signals, but not simultaneously. This cable has greater resistance and a domestic format that can be found in DVD's, etc.
- Firewire/1394 protocol: is an AppleMac development. It is a digital cable that is used to connect the camera to the edit suite. It can carry audio and visuals simultaneously, thus a complex carriage of signals
- Remote cable: 9 pin. Allows for the control of information.