Cinematography
Videography
An Overview

Cinematography
Means literally:
“Writing in Movement”
A better term than videography?

3 Basic Properties of Cinematography
Photographic Quality of the Shot
Framing of the Shot
Duration of the Shot

(1) Photographic Qualities
A. Range of Tonalities:
Film stock different than video
not the tape but the rec. format
Filters
Exposure
B. Speed of Motion:
Slow motion ... Fast motion

(1) Photographic Qualities
C. Perspective relations
Choice of lens:
wide-angle
normal
telephoto
zoom lens

(1) Photographic Qualities
C. Perspective relations (continued)
Depth of Field and Focus:
Deep Space -- staging in depth
Deep Focus -- all in sharp focus
Selective focus -- diff. planes in composition in sharp or soft focus
(1) Photographic Qualities

D. Perspective relations (continued):
- Special Effects
- Superimpositions
- Process shots (or composite shots):
  - chromakey - blue/green screen
  - matte shots
  - traveling mattes
- now - digital effects: digital layering

(2) Framing

A. The size and shape of frame

**ASPECT RATIO**

**Aspect Ratios**

**Academy ratio:**
- 3 units high
- **Ratio:** 1.33:1

**SMPTE ratio:**
- 4 units wide
- 3 units high
- **Ratio:** 1.33:1

**N.A. Widescreen:**
- 5.53 units wide
- 3 units high
- **Ratio:** 1.85:1

**European widescreen:**
- 5 units wide
- 3 units high
- **Ratio:** 1.66:1
- Close to HDTV standard: 16 to 9

**Cinemascope:**
- 7.05 units wide
- 3 units high
- **Ratio:** 2.35:1

*(anamorphic lens)*
Aspect Ratios

Todd-A0 (70 mm.): 6.63 units wide
3 units high
Ratio: 2.2:1

(2) Framing

B. ONSCREEN / OFFSCREEN SPACE

Top
Left
Right
Back
Bottom
Front

(2) Framing

Moving the frame:

- Angle of framing
- Level of framing (left/right horizon)
- Height of framing
- Distance of framing: long shot, medium shot, close-up, etc.
- Point-of-view shots (POV)

Functions of frame movement

1. Changing space: onscreen & offscreen, angle, height, etc.
2. Fast or slow: any movement takes time to execute
3. Movement can be patterned to create a motif

(3) Shot Duration

The “TAKE” - from moment camera starts recording until it stops

The LONG TAKE
Lenses - Key concepts

F-stop range:

- more open  less open

F/ 1.4, 2.0, 2.8, 4.0, 5.6, 8, 11, 16, 22

- more light  less light

Focal length:

Distance from optical center of lens to the focal plane of the CCD or target in mm

fixed (prime)
or variable (zoom)

Lenses - Key concepts

Angle of view: normal, wide, telephoto

Zoom ratio

Zoom vs dolly

image stabilization (optical vs digital)

lens speed = maximum aperture

lens coatings

lens protection

Lenses - Key concepts

Depth of Field / Focal length / f-stop

Focusing (a zoom)

Auto-focus

Macro-setting

Filters

Filter wheels

Video Cameras - Key terms and concepts

Tubes/CCDs and video resolution

Minimum light levels -- expressed in footcandles (or lux = 10.74 fc)

Gain switch to boost

TV white / TV black

Auto white balancing / manual white balancing - auto continuous wb

Cameras - Key concepts
Cameras - Key concepts

Color Temperature
3200 ° vs 5,500 °

Adjustable shutter speed in video - very different from still camera

Cameras - Key concepts

The viewfinder -- status indicators

Cameras - Key concepts

Safe areas
Adjusting the viewfinder
Power supplies/batteries
Connecting cables
External audio connections
Headphones
Tripods (fluid heads/cam heads etc)

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