CINEMATOGRAPHER'S GUIDELINES

**Association Française
des directrices
et directeurs de la photographie
Cinématographique**

CINEMATOGRAPHER'S GUIDELINES

Preamble

Over the years, the exercise of directing and cinematography in film has evolved considerably. New tools and new media for image capture and delivery, have spurred us to redefine our profession, in order to clarify our responsibilities and commitments with respect to directors, producers, broadcasters, as well as the crews we work with.

Clearly, there are stages of creation of a film that are often underestimated, as are certain crucial communications with other departments. Because our position dovetails and works in close collaboration with others, we feel it's necessary to restate what that link is made of.

This new "Cinematographer's Guidelines 2023" is based on the "Charter 2005". It should serve as an evolving guide to any and all in need of reference markers.
Fiction, documentary, video clip, advertising... each film is unique and requires its own dedicated process.
This document is intended as a teaching and information source and in no way means to promote dogmatic or uniform approaches.

Director of Photography or Cinematographer :

He/she is hired by the director and the production, on the basis of know-how, artistic sensibility and ability, working side-by-side with a director, to conceive, suggest and create the visual aspects of a script .

He/she shares responsibility :

- *For the artistic and technical quality of a film's visuals.*
- *For the conception and the fabrication of the picture resulting from collaboration with the other departments.*
- *For the consistency used to produce that picture within the production budget*

To simplify the reading of this Charter, the Director of Photography will be referred to as DP.

Contents

Pre-production (prep)

A Identification of intentions and artistic direction

01 _ Building a relationship with the director, identifying intentions and defining an artistic direction in collaboration with Art department :

- Reading, analysing, discussing the script
- Getting to know the world of the director, including his/her film, photographic, pictorial, sociological, musical, literary, historical and geographic points of reference...
- Discussing visual decisions, mood and rhythm
- Sharing of reference documents, creating a visual moodboard if necessary
- Discussing various shooting methods, in accordance with the directorial method [1]
- Suggesting photographic process, frame ratio, type of optics and photographic formats [2]
- Discussions with art department and costume departments (set construction, spaces, colors, textures)
- Consultation regarding the possible use of a virtual set
- Exchanges with the production, showrunner, or broadcaster, according to their artistic, human, and budgetary expectations.

[1] Multicam, Steadicam, gyro-stabilized systems, Handheld-camera

[2] Media and format for photography:
silver process (specifying the size of the film) or digital (specifying the size of the image sensor)
Frame ratio: standard or specific
Lens types: Spherical or Anamorphic .

Pre-production (prep)

A Identification of intentions and artistic direction

02 _ Collaboration with other departments: Sharing aesthetic directions with various departments.

Production / Production Management:

- With the film's budget in mind, exchanges and research to match financial imperatives with the desired directorial goals and techniques.
- Agreement on preparation time for the DP
- Consulting to pick the service providers (labs, rental companies, manufacturers) and drawing up preliminary lists of technical equipment to be used
- Style research schedule and process (camera tests, make up tests…)
- Discussing the use of multiple cameras
- Discussing the use of a second unit.

Assisting the Director:

- Preliminary shooting schedule discussions and chosen shooting style, as agreed with the director.
- Setting a prep schedule.
- Involvement of the DP in location scouting
- Consulting on staging scenic space, location alterations, and sound practicality and viability [3]
- Consulting on picture cars.

[3] Because the sound department is not always formed at this juncture, the entire crew needs to be vigilant as to this aspect

Pre-production (prep)

A Identification of intentions and artistic direction

Set Design:

- Consulting on artistic and technical choices – volumes, colors, materials [4], practical lamps, props, backdrops if any... in agreement with the directorial and Art departments.

Costumes:

- Adjustment and validation of choices – colors, volumes [4] in agreement with the directorial department.

Makeup / Hair:

- Meeting and consulting with director, make-up artist and hair stylists about characters.

Special mechanical and digital effects:

- Meeting and consulting with directorial department, production management, continuity supervisor, post-production manager, set designer, SFX, VFX, graphics and stunt departments...

Continuity:

- Meeting concerning cutting, continuity and continuity editing.

Sound:

- Sharing choices of directorial techniques, (multi-cameras, handheld camera, improvisation...)
- Sharing the shot list and/or storyboard
- Exchanges concerning the configuration for documentary films.

Promote clear communication between the various departments.

[4] Shine, transparency, paint, textures, reflections, range of colors...

Pre-production (prep)

B Advanced technical pre-production:

The following points may depend on one another, and are not necessarily listed in chronological order.

01_ Hiring crews:

- In agreement with director and producer, choice of whether or not to include a camera operator
- Along with director and producer, setting the amount of crew members needed in cinematographer's team and day players
- Choice of crew members in cinematographer's team (rigging, shooting, postproduction) [5]
- Consultation with director and Art department on the choice of prop master
- Involvement of the DP in the choice of make-up artist and chief hair stylist [6]
- Involvement of the DP in the choice of still photographer.

02_ Technical choices:

- Choice of photographic process (film/digital) in consultation with the director and producer
- Choice of resolution, digital format encoding or film format, scan resolution [7]
- Choice of cameras and lenses to be tested
- Preparatory exchanges with head of departments and building up pre-lists of camera, lighting and key grip equipment
- Design and organisation of pre-lights.

[5] Camera operators, assistant camera operators, second-unit DP, Steadicam operators, gaffers, grips, pre-light crew, DIT, Data Manager, Color Scientist

[6] In period films, the costume designer imagines the entire appearance, including hairstyle, hats, and must be in close contact with the the DP

[7] Cadence for photography: (24-25 f/s). Frame ratio. File type (RAW or Codec). Recording resolution (2K, 4K, 8K...). Colorimetric type, depth of color and sampling

Pre-production (prep)

B Advanced technical pre-production:

03_ Choice of post-production chain:

- Validation along with the director and producer or post-production manager of the choice of post-production contributors (laboratories – rushes – VFX – graphics)
- Preliminary discussions to establish workflow with production and post-production managers, labs and editing department, in consultation with the broadcaster
- Choice of Color Scientist (if any) and Colorist
- Consultation concerning choice of DI software with the colorist, the DIT where applicable and the lab. [8]
- Consultation with director and producer concerning the choice of VFX Supervisor.
- Consultation on choice of color spaces [9] onset and for the DI
- Knowing required outputs (HDR, SDR)
- Choice of processing and color grading mode for dailies [10]
- Determining compression rates and managing dailies for the Editing crew, according to Editing and Post-production [11]
- Workflow management for dailies [12]
- Time Estimate for digital intermediate, as a function of the estimated runtimes, the nature of the project and any special effects handled by the color grading department [13]
- Retro-planning of VFX and VFX color grading, with Editing department..

[8] Baselight / Resolve / Lustre...
[9] ACES, REC 709, DCI-P3, REC 2020
[10] Lab / DIT / «Near Set» or «On Set» Dailies.
[11] DNX 36, DNX 115, etc.
[12] Sending of «stills», iPad, streaming servers, lab screenings, calibration of editing monitors and monitors for viewing dailies...
[13] Beauty touch-ups, day-for-night, image stabilization, various erasures, etc

Pre-production (prep)

B Advanced technical pre-production:

04_ Camera tests:

These tests give direction for the artistic and technical direction of the project, as much as a reference for Art department, costume and make-up.
They will set the workflow for the film, with a Color Scientist, Colorist, DIT, and Editor:

- Comparative camera tests (digital/film), lenses, filters
- Lighting tests, in situ if possible (elements of set, costumes)
- Tests of specific tools and techniques [14]
- Tests for make-up, hair, costumes, with actors in situ.

Technical results of these tests, after analysis by lab, will determine:

- The choice of camera(s), lenses and filters
- The choice of color space
- The type of processing [15]
- Creation of one or several LUT's if desired.

Once these elements have been discussed and defined, a written workflow will be established by the post-production department and distributed to all concerned [16].

[14] SFX, car mounts, stabilization systems, underwater photography, extreme climate conditions, camera ergonomics, etc

[15] Silver processing: bleach bypass, burning, dodging...
In digital: debayering of RAW, determining curves, sensitivity...

[16] Production, postproduction, Director of Photography, Editing, Sound, VFX, Assistant Camera Operators, DIT, labs

Pre-production (prep)

B Advanced technical pre-production:

05_ Pre-production prep:

- Precise information on stylistic choices, with director and set designer on the chosen sets
- Shotlisting with director, if possible in situ
- Storyboard or pre-visualizations of certain scenes, as necessary
- Sharing artistic techniques and decisions with the crew department heads – first assistant camera, camera operator, grip, gaffer, DIT
- Along with first assistant director, discussion on shooting schedule. Evaluating scenes per day to be shot, as well as ideal shooting time frames
- Along with first assistant director, art department and VFX, talk about image media (photos, documents, screen captures...)
- Technical scouting with heads of applicable departments [17]
- Evaluating shots to be made by second unit, if any
- Discussing with SFX concerning required effects
- Meeting with art department about making and setting up backdrops, retro projections, green screens, etc.
- Meeting with VFX about plates : retro-projections, green screens, LED-walls, in consultation with Art department
- Preparation for plate.shooting.

[17] Director, gaffer, grip, camera operator, first assistant camera, SFX, VFX, set design, production manager, sound, production, stunts...

Pre-production (prep)

B Advanced technical pre-production:

- Meeting with art department about artistic and technical parts of positioning the sets on stage and transformations for location shooting, as well as any particular techniques linking set, light and grips. [18]
- Designing lighting plans, with gaffer and key grip.
- Calibrating monitors (set, dailies, editing) along with the image assistants and the lab
- Adjusting the image budget with the production manager along the prep
- Checking the shooting schedule with the production manager, and keys. Adjusting the need of day players and logistic for rigging and pre-lights
- Artistic, technical and logistical reading of the script with all the department heads.
- If required by the director, attendance of rehearsals of the screenplay with the actors
- Consultation with director and production manager on any choices for stand in.

[18] Mobility of set elements, backdrops , ceilings (removable, fixed or trompe l'œil), traps for electrical connections, various hiding techniques, etc

Shooting

There is several ways of directing a film, but it's worth recall a few guidelines for cinematography.

01_ Pre-light:

According to decisions made in preparation, gaffer and grip crews prepare the set in advance, anticipating technical requirements of the day.

02_ Set-up:

Under the director's guidance, actors work out their blocking and the rhythm of each scene. The DP may be active in suggesting changes to the director, in accordance with the artistic goals which have already been established. Working together, the director and the DP verify the number of shots and the order of shooting with the assistant director and the script supervisor.

03_ Technical set-up and rehearsals, Shot set-up:

Note:
A "blocking" defines the movements of the actors and the camera, whereas a "rehearsal" stresses the acting itself.

Lighting and grip set-up takes technical and artistic considerations of other departments into account (sound, VFX, SFX, stunts...) as well as safety considerations.

- Suggestion and confirmation of angles, heights, camera moves, as well as focal lengths to be used by the DP during the set-up of a shot
- Adjustment and/or set-up of lamps and rigging necessary for the shot
- Fine-tuning of technical details for the shot [19]
- Collaboration with prop master on setup of props, practicals, and set elements in the frame

[19] Choice of focus, boom shadows, camera cues, lighting start-up...

Shooting

- Collaboration with direction regarding movements of extras
- Mechanical rehearsals [20] with actors in order to finalize technical adjustments, in agreement with director.

04_ Shooting:

The DP, along with his team, is in charge of the artistical and technical execution of each shot. He/she gives the director notes on improving each take.

05_ Anticipation and coordination:

- Validation of the next-day's call sheet, along with the assistant director (order of scenes, call-times for crew, etc.)
- Verification of applicable crews, arrival and departure of additional equipment, support team schedule
- Anticipation of pre-lights for upcoming sets
- Briefing on work by any second unit , if any
- Follow-up with laboratory
- Exchanges with the still photographer on matching stills and cinematography.

06_ Watching dailies:

- During production, according to the producer and director, each head of department should have access to dailies, and be able to communicate them with their crew through the production dailies setup
- Dialogue with laboratory after receiving stills and dailies.

[20] Blocking: Approximately reproducing the movements of the actors and cameras, without acting.

Post-production

01_ Retro-planning

Along with the post-production supervisor, evolution of DI schedule according to editing, VFX, cleaning, stabilization, etc.

02_ Consultation with editing crew

Technical validation of any reframing or changes to lighting, ideally during a screening in the editing process.

03_ Color-grading and collaboration with colorist, VFX

- Pre-color-grading of shots and sequences for VFX
- Validation of VFX with the director, making sure alpha layers and/or mattes are available
- Digital Intermediate of the film for the various distribution channels
- Color-grading of trailers, promos, in coordination with the distributor
- In case the DP is not available during the DI, assuming a remote supervision [21] is impractical, he/she will, in agreement with the production, designate a person to supervise post-production according to his/her instructions.

04_ Validation of outputs

- Validation of the final DCP.
- Verification of the quality and conformity of broadcast media (Blu-ray, DVD, P.A.D TV, HDR, streaming, airline version, trailers, promos...).

[21] Remote supervision – streaming worflow between two laboratories, when the DP cannot be present to screen in the first laboratory.

Ethical and ecological commitments

The status of DP in the production and his/her responsibility as department head requires him/her to be vigilant concerning the ethical and ecological practice of the work.

01_ Transmission of knowledge:

Transmission and sharing of knowledge in order to ensure continuity of artistic and technical practices, by training the younger generation, which explains the importance of including interns in the crew.

02_ Restoration of works:

Participation in the restoration of images for which the DP is not responsible for the photography, with all the technical and artistic exigencies for the exact restitution of that photography.

03_ Parity and diversity:

Fostering a transition toward more parity and diversity.

04_ Combatting harassment (sexual, racial, moral)

- Foster respectful behavior among crew members
- Alerting and taking necessary measures with the production and professional associations (Audiens, CST, AFC, union, crew rep) in case of harassment of a crew member.

05_ Ecological responsibility

- Acting eco-responsibly, both individually and as a group.
- Initiating responsible evolution toward a reduction in digital and energy consumption.

Glossary

Data:
Recorded digital data.

Rushes digital negative:
Native files corresponding to the recordings of one day's work.

Native or digital negative:
File taken directly from the camera or from the sound recorder.

Proxy:
Files compressed from native rushes for viewing or editing.

Dailies:
Rushes from one day's work, as processed by the laboratory and synchronized (most often circled shots).
Dailies are made accessible for watching by the crew through an internet link to a secure platform.

DNX 36 ou DNX 115:
Compression codecs of proxies for for Avid. The numbers 36, 115, 175, 350... indicate the rate in Mbit/s.

Avid:
Proprietary editing software (Avid Media Composer).

Protools:
Proprietary software for editing and sound mixing.

Da Vinci Resolve / Baselight:
Digital color-timing software and control panel.

Compression:
Process which consists of making data lighter – we speak of compression rate.

Glossary

Conformation:
Operation consisting of replacing proxies of inferior quality used for editing with superior quality elements, generally native camera-original files.

Hard Drive:
Container for stocking digital data on a physical, electromagnetic medium. They are of various capacities, from 250 GB to several TB. Recent technological developments include the advent of new data stocking devices such as the SSD (Solid State Drive).The term «hard drive» remains in use.

Back-up:
Action consisting of copying datas from camera cards to another storage device, for safekeeping (preferably a double copy of each camera card is made).
This safekeeping aims to ensure the continued existence and integrity of digital data throughout the process, from production through post-production.

Back-up process: Data is downloaded from camera cards or disks to a RAID tower (Redundant Array of Independent Disks that work in parallel) using a data back-up software package.

In parallel, the native and dailies are downloaded to a shuttle hard drive to be processed, copied and secured on laboratory LTO's.

Shuttle Drive:
Hard drive for use in copying rushes from the shoot and transferring them from the set to the laboratory or other postproduction service company. Once copied, the shuttle is returned to the set empty.

LTO (Linear Tape-Open):
Magnetic tape storage system, used to archive and secure data in laboratories.

Glossary

Codec:
Computer technology allowing encoding or decoding of digital information. Certain codecs allow for digital compression. Examples of codecs: XAVCHD, DNXHD36, H264, H265, PRORES...

RAW:
Generic name for unprocessed digital data taken directly from the camera sensor. This is not a finished image, but only value information captured through the Bayer pattern (see Sensor) which must be interpreted (or de-bayered) in order to obtain image color. No processing is applied to the rushes. This allows for maximal range of options in color grading – changing the white balance, speed (EI/ISO)...
Each manufacturer has created its own compression technology to record RAW (XOCN for Sony, REDCode for RED, ArriRaw for Arri, etc.).

LOG:
Interpretation of the image optimized for recording of a larger quantity of information on a single signal. After de-bayerization, luminances are sampled according to a logarithmic curve. In order to preserve a reasonable data flow, the LOG is recorded in a compressed file.
Each manufacturer has its own LOG curve including a “toe” and a “shoulder” (LOG-C for Arri, SLOG-3 for Sony, V-LOG for Panasonic, LOG RED). A LOG image appears very gray and desaturated.
Recording in LOG using a certain codec is lighter than in RAW, but information and range of options for color-grading may be lost.

XAVC:
Sony proprietary codec allowing recording up to 4K, with various depths of color (8-bit, 10-bit, 12-bit) and in sub-sampling of variable chrominance (4:2:0 or 4:2:2 or 4:4:4)

Glossary

Sensor:
Photosensitive surface of a digital camera. A sensor is composed of photosites (cells transforming a quantity of received light into electricity). Two types of sensors exist – the CCD and CMOS. Practically all large sensor cameras today are made up of CMOS sensors, the Penelope Delta had a CCD sensor…
The sensor does not distinguish between wavelengths of the light signal and is therefore not sensitive to color. Making a sensor sensitive to color is achieved through filtering with CFA (Color Filter Array) which is most often a Bayer mosaic (placed directly in front of the captor). Most Bayer mosaics are 50% green filters, 25% red filters and 25% blue filters, as a function of the necessities generally found in subjects for each primary color (leaves, skin, sky…).
The restitution of RGB components is accomplished during debayering.

De-bayering:
Digital process consisting of interpretation of monochromic data for each sensor photosite (exposed with each red, green or blue filter in the Bayer pattern) in order to reconstitute a trichromatic color image through the interpolation of the values of nearby pixels.
This stage of processing takes place in a controlled manner during post-production, when shooting in RAW. This operation is also accomplished in camera, according to manufacturer standards, in order to display color images on the monitors.

Sensitivity:
Response index of a photosensitive surface to a given amount of light it receives. By extension, a material is deemed more or less sensitive according to its ability to discern information in low light.

Workflow:
The chain of processing for a film, from production through post-production, during which technical choices may influence the final result.

Glossary

Service Supplier:
A company supplying specific services to a film department (equipment rental, postproduction lab, parking production companies, etc.)

DCP (Digital Cinema Package):
Copy for digital screening, including all files necessary for the screening of a film – image (compressed in JPG 2000), sound (in 5.1), subtitles, etc. For the image, projection specs are given according to the frequency, the containing resolution (2k or 4K) and the aspect ratio (Flat: 1.85:1, Scope: 2.39:1 or Full: 1.90:1).
DCP's are protected by a KDM (Key Delivery Message) for security. To open a DCP, a theater must receive a digital file, the DKDM, from the distributor in order to unlock the DCP and project the film during a given lapse of time.

Recording file:
Container allowing the recording of the image and the sound in a single file. They are identified by their computer file extension (.mxf - .mov - .mp4 - .avi). They are generally compressed by using a codec (XAVC, ProRes, H264...).

Aspect Ratio:
The width of an image with respect to its height, written as l:h or l/h. The historic or "academic" aspect ratio for movies is 1.375:1. "Silver process" ratios were: 1.66:1, 1.85:1, 2.35:1 (Scope). The most widely used "digital" ratios today are 16/9 (HDTV), 17/9 (2K) – 1.85:1 – 1.66:1 – 2.39:1 (anamorphic) – 2.0:1 (tablet screen). The order l:h is important today because frames today can be either "landscape" or "portrait".

Scan:
Digital image produced by a scanner. Tool allowing analysis of images from film negatives or positives after processing on a computer and obtaining a digital image. Scan resolution: 2K, 3K for S16; 2K, 4K, 6K for 35 mm

Glossary

Resolution:
The quantity of information used for image capture. This term is generally used to specify spatial resolution (in pixels) of a digital image.
It may be given in approximate terms, indicating the number of pixels per line (shooting in 4K, camera 8K), the number of lines (720, 1080, 2160) or calculating the number of pixels in an image (in photography more generally: 26 Mpixel image 6347x4096).

Color Science:
The study of color processing throughout the chain of production, in order to achieve the most faithful result possible on any kind of screen.

Color Space:
Standards for representing the color range of an image, based on components such as color bands (i.e., red, green, blue), spectrum, tint, saturation, luminosity, value and others.
Color space is to filmmaking what the palette is to painting. The wider the color space, the better a tool can discern between two closely related hues. This notion is also used in color-grading when defining the color space to work in (e.g. ACES), then a color space for broadcast (the DCI-P3, the REC709-video SDR, the REC2020-video HDR, etc.).

HDR (Abbreviation of High Dynamic Range):
Technique for rendering, for a specific method of broadcast (projector or monitor), of a wider dynamic range of luminosity, deeper shadows to very bright lights, than that which can be obtained through standard digital range (SDR).

Near-Set Dailies:
Pre-color-grading station and managing rushes near the set but off-set (in another location). As opposed to On-Set Dailies, which defines the same task as carried out by the DIT on set and near the «video village» monitors.

Glossary

LUT (Look-Up Table):
Table of values used to convert data from entry value to output value. Usually the result of camera tests, color-grading and export of specifics from this as a digital file.
The LUT, once loaded on a camera or a monitor, allows for an immediate corrected LOG image.
The application of a LUT only applies to the picture display and in no way alters or modifies the recorded image (as opposed to a «Pictures Profile» which modifies the recorded image).
The DP can apply as many LUT's as effects or pre-color-grading as he/she wishes. The LUT applied in production is recorded as supplemental data (metadata) in the image file.

Color-grading (color timing):
Postproduction processing of the film's images. After developing of rushes, this deals with modulation of the image density, color and saturation, in order to give the picture its final aspect and ensure visual continuity. DaVinci Resolve, Baselight or Lustre are proprietary software platforms for color-grading of a film.

Sound editing :
The stage of sound post-production where the various sound tracks are elaborated. The combining of direct sound is specific to the sound recorded on set (the voices, etc.), to which individual audio tracks are added; sound effects, music... Protools is the proprietary Avid software for sound editing.

Sound mixing :
The stage of postproduction which follows editing and consists of harmonizing global and specific sound levels of a film. This task takes place in an auditorium (a room with acoustic standards equivalent to those of a movie theater) on a mixing table.

ADR (Additional Dialogue Recording):
The re-recording of voices in a recording studio, after shooting.

Glossary

Master:
The final export of the film including final mix and color-grading. This file can be used for making a DCP as well as for television or VOD broadcast. It may be necessary to create several masters, depending on broadcast media (HDR - SDR).

Sampling:
Mathematical operation consisting of capturing a part of a signal at regular intervals, in order to reproduce it. The moving picture is the result of sampling – 24 frames per second are captured. Sampling operations act in color depth (12-bit, 16-bit, etc.) as well as subsampling of chrominance (4:2:0, 4:2:2 or 4:4:4). Sound is sampled at 48 kHz

Focal length / Optics:
Optical system which through a combination of lenses allows the convergence of light rays on a specific point (the sensor), thereby forming the image of the subject. Depending on how these lenses are processed, the optics have varying characteristics – definition, color-timing, contrast (FTM), blur, coverage, etc.

A focal length is defined as:

- the distance between the nodal point of the lens and its sensor, which determines its field angle (25 mm, 35mm, 50mm, etc.)

- its diaphragm, i.e., its capacity to let more or less light through (generally expressed by its maximum aperture – T1.5)

- its close focus, which is the minimum distance to the subject in order for the lens to obtain an image in focus.
The choice of optics, because of differing results on the very texture of the image produced, is a major technical and artistic step in the making of an image.

Glossary

Anamorphic:
Optical technique invented in France by Henri Chrétien under the name Hypergonar and picked up by Americans as CinemaScope. It is the horizontal optical compression of the frame in order to optimize its recording on a sensitive surface (historically, x2 and now adapted by certain manufacturers to various ratios). The image is then de-anamorphized (decompressed in the opposite ratio) for screening or postproduction, restoring its original ratio. Today there are several anamorphic rates designed to be combined with various sensor ratios (x1.3 - x1.5 - x1.8 or x2).

Oscilloscope (scope):
Measuring instrument for analysis and graphic representation of an electrical signal. Connected to a camera output, this tool can verify the exposure of an image in general or particular terms (analyzing levels of blacks, mediums and whites). The oscilloscope can display waveforms (level of luminance per channel) or vectorscope (level of hues of color).

Waveform:
Graphic representation of the amplitude of a signal. In analyzing an image, the axis of abscisses of left to right video signal output and the y-axis correspond to the luminance of the video signal (expressed as a percentage). This allows control of the luminances of a signal from the subject and from the image, and notably to monitor signal loss in low light or saturation in bright light.

Neutral gray:
Established by Kodak in the early 1900's, neutral gray is a gray reflecting 18% of the light it receives. Neutral gray corresponds to an area that we perceive as exactly median with respect to the nuances of gray ranging from black to white (the perception of light is not linear), which explains why it is also known as "middle gray". It's a reference for image exposition.

Glossary

False color:
A function of monitor displays allowing the expression of various levels of image exposition by solid color swatches. Values with luminances of neutral gray will be given a green color, saturated bright light will be red and the darker areas of the image will be blue.

Spot meter, light meter:
Light measurement tools used by the director of photography for the exposition of his image. The cell measures incident light where as the spot meter measures reflective light.

VFX (from Visual Effects):
his acronym designates all the processes by which the picture is altered or manufactured outside the set. Superimposition over green screen or adding computer generated imagery are two examples of VFX.

SFX (from Special Effects):
This acronym designates all the mechanical or physical processes by which to visually create a phenomenon that is not naturally present on the set. The most commonly used SFX are rain, fire, pyrotechnics.

Background plates:
Shot to be used for composite visuals. The backgrounds often are shots of places or sets used as backdrop to a scene shot with green screen or on a virtual set (car interior or inaccessible site).

Virtual set:
Set using tools (LED walls) and other virtual production techniques in order to capture the image live on camera instead of using VFX. Camera movements are captured in real time, allowing for the repositioning or deforming of the images projected in the background.

Glossary

Clean plate :
Additional shot made after “cleaning” the set of any elements needed to secure the shot but unwanted in the final image (cables, support stands, protective equipment, etc.) . This allows for the erasure of those elements by rotoscoping or superimposing differences, restoring necessary image elements. The clean plate is one element of a double pass.

Rotoscoping:
Technique for redrawing, frame by frame, the outline of something to be isolated in the shot (whether an actor or an object). Rotoscoping is increasingly assisted for animation and follow-up by form recognition software.

Multiple pass:
Principle of multiple successively repeated shots in preparation for VFX later on (multiplication of actors, for example). Repeted moves require the use of computer-controlled photography (Motion Control).

Alpha layer:
The extra black and white layer of a digital image (R - G - B - Alpha). It is generally used to export results of superimposition or VFX settings. This fourth layer is that of the transparency or cache for the superimposition.

Motion capture:
Technique for capture of movements by actors equipped with sensors in a studio equipped with multiple capture systems. 3D reconstitution software then records three-dimensional coordinates of the actors, all their movements and expressions. That data is then modeled and processed in CGI (Computer Generated Imagery) software for the animation of virtual characters (Maya, etc.).

AFC Actives members :

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