Topic 001

The Role of TV Producer

Producers play an integral role in the television, film and video industries. A producer will oversee each project from conception to completion and may also be involved in the marketing and distribution processes.

Producers work closely with the directors and other production staff on a shoot. Increasingly, they need to have directing skills as they may be the director and be in charge of all project operations. Producers arrange funding for each project and are responsible for keeping the production within the allocated budget.

Creative input and the level of decision making varies, as this depends on the client and the brief.

Typical work activities

Producers are responsible for facilitating a project and are involved in every stage of the television programme, film or video, overseeing the project from beginning to end, both in the studio and on location.

Essentially team leaders, they are supported by production assistants, coordinators and managers, depending on the size of the project.

Tasks include:

- raising funding;
- reading, researching and assessing ideas and finished scripts;
- commissioning writers or securing the rights to novels, plays or screenplays;
- building and developing a network of contacts;
- liaising and discussing projects with financial backers - projects can range from a small, corporate video costing £500 to a multimillion-pound-budget Hollywood feature film;
- using computer software packages for screenwriting, budgeting and scheduling;
- hiring key staff, including a director and a crew to shoot programmes, films or videos;
- controlling the budget and allocating resources;
- pulling together all the strands of creative and practical talent involved in the project to create a team;
- maintaining contemporary technical skills;

- organising shooting schedules - dependent on the type of producer and availability of support staff;
- troubleshooting;
- ensuring compliance with relevant regulations, codes of practice and health and safety laws;
- supervising the progress of the project from production to post production;
- holding regular meetings with the director to discuss characters and scenes;
- acting as a sounding board for the director;
- bringing the finished production in on budget.

In theory, the producer deals with all the practical and political aspects of keeping a project running smoothly, so that the director and the rest of the team can concentrate on the creative aspects.

Topic 002

The Music Production Process

A good understanding of music production process is perhaps the most common hangup of the novice producer, engineer or songwriter. Without the experience of watching professionals do their thing, the novice is left with either a trial and error approach, or will end up following production concepts they read in an industry magazine.

The music production process itself is always unique to the artist. There is no single method, one could use, that would work for every artist. Most of these situations require years of recording and production experience to fully understand. Working in a commercial recording studio is absolutely the best way to gain this experience. By watching many different producers and engineers work their craft you be filled with a tremendous number of ideas for approaching the day to day problems that arise when producing music. Let's begin!

Music Production Basics

The study of any art or discipline always starts with fundamental building blocks. These are typically considered tried and true methods or ways of working that yield positive results on a consistent basis. In music, these music production basics are the basis from which all other decisions are made. Once a stumbling block in the process comes up, intelligent decisions can usually be made to achieve the desired result.

Over the years I have found that the procedures and tools used by most professionals in the music production process are very similar in concept and design. The reason is simple, they work! Even though the personalities and the dialog may appear different on the surface, the underlying process is mostly the same.The following articles will outline many of the concepts and working methods of the music producer when approaching various production situations. How these methods are applied will vary from artist to artist.

Music Production Step by Step

Let's start by breaking down the music production process into it's most basic traditional formula. While many people will skip some steps outlined here, in my experience, when the steps are followed and completed individually, better results are typically achieved.

- Writing the Song
- Recording a Demo
- Rehearsals
- Basic Tracks
- Overdubbing
- Editing Music
- Music Mixing Part
- Mastering

Each step is critical and has a specific purpose in the music production process. Skipping steps or combining steps usually results in a less than desirable result. There is a myth that skipping steps in the process outlined here will somehow save time and money. The fact is that if you skip any of the steps outlined above, the process will take far longer and create far more work in the long run.

If you were building a house and paid little attention to the foundation and all your attention to the part of the house that you see, eventually you will start to have problems. To then go back and deal with the foundation properly will become extraordinarily more difficult and time consuming. Recording a song is no different if you ignore the early steps of creating a demo and rehearsing the song you will not have built a solid foundation to work from when laying the basic tracks. Every subsequent overdub will then be compromised, and fixing the recording will become an exercise like a dog chasing its tail.

We'll Fix it in the Mix!

There is an old joke in the recording industry that revolves around this idea of working too quickly to get things done. When anything in a music production is not addressed and completed fully, there is a residual effect on the rest of the production that brings the production as a whole down. As soon as you start piling issues on top of issues, you are doomed.

When these issues are left to be dealt with later, it will take hours of time to get back into the intricacies of the performance, enter the same mindset and make good decisions about how to correct the problems. Often these issues are better addressed by spending an extra five minutes to just do a better take, or taking the time to finish your comps or edits before moving on to the next task.

To complete the story here, when issues in the tracking session are not dealt with properly, the saying is: "We"ll fix it in the overdubs". When the overdubs fail to correct the issues of the tracking session: "We'll fix it in the mix". And when the mix does not have the luster of a finished production, "We'll fix it in the Mastering". I think it was Frank Zappa who famously said once in a Mastering session, "We'll fix it in the shrink wrap".

The bottom line here is that any compromise in the production process is one that will leave the overall product in a state that is less than its potential. For thousands of years music has been a live art form. It was an expression of ideas, feelings, insights and emotion that when well presented, leave the listener in a transformed state.

Relatively, the art of capturing that art in physical form has been going on for a very short period of time and the technology is changing faster than the artist can keep up with. As soon as one loses sight of this fundamental truth, the technology takes over the production process and what you are left with is something that may look shiny and powerful on the surface, but is really hollow and lifeless and soon forgotten.

EASY STUDY EASY SOLUTION

Pin ✌ And Muhammad

Topic 003

Viewer's Feedback

*L*et's think big, as in a big production.

Following are the basic steps required for an elaborate television production. Once you get a feel for the entire process, you can scale things down for any sized production.

Identify the Purpose of the Production

1. This is the most important step: *Clearly identify the production's goals and purposes.*

If there is no clear agreement on the goals and purposes of a production, it will be impossible to evaluate its success. (How will you know if you've arrived at your destination, if you didn't know where you were going in the first place?)

Is the purpose to instruct, inform, or entertain -- or maybe to generate feelings of pride or express a social, religious, or political need? Is the real purpose to create a desire in the audience to take some action?

Let's be honest. The primary goal of most broadcasting is simply to hold the interest of an audience through the intervening commercials. Even PBS (Public Broadcasting Service), which used to be commercial free, now runs "mini-commercials" for their corporate underwriters.

Most productions have more than one goal and we'll elaborate on some of these later.

Analyze Your Target Audience

2. Next, *identify and analyze your target audience*.

Based on such things as age, sex, socioeconomic status, and educational level, program content preferences will differ.

These preferences are also different in various regions of the United States (e.g., North, South, urban, rural).

As we've noted, we refer to audience characteristics as *demographics.*

We can see regional demographic variations in part by differences in local programming in various areas of the country -- and sometimes by the films and network programming that local stations decide not to air.

Sex and violence are chief among these content issues -- and both show a positive relationship to ratings.

Identify Demographics to Determine the

Acceptability of Content

- Knowing your audience, of course, is crucial to success -- and not understanding it is at the base of many failures.

It has long been known that violence and sex are two major elements in ratings success.

Generally speaking -- and, of course, there are many exceptions -- when it comes to sexual themes, people living in Northern urban areas of the United States tend to be more tolerant than people who have a rural background and live in the South.

Education is also related. Research shows that, generally, the more educated the audience, the less they object to sexual themes.*

Interestingly, it appears that this relationship seems to be the reverse when it comes to violence.

Therefore, program ratings (success) and what is and is not broadcast are largely determined by audience feedback and this varies greatly with demographics.

- You may have a compulsion to "just tell it like it is" and not be concerned about alienating your audience.

Time to review those Reality 101 notes.

If you consistently disregard audience preferences and predispositions, you'll limit your future in TV production.

But what if you're not producing programming for broadcast or general distribution?

Compared to standard broadcast television, institutional television, which includes corporate and educational video, has different needs and expectations. But here too, predominating demographic characteristics, such as age, sex, and education, influence a production's form and content.

For example, to *underestimate* education or experience and inadvertently "talk down to" an audience insults them. To *overestimate* education or experience and talk over people's heads is just as bad. Either way, you lose.

Check Out Similar Productions

3. *Check out similar productions from the past.* If you're going to make mistakes, at least make new ones.

Ask yourself some questions: How will your proposed production differ from previous successful and unsuccessful efforts by others? Why did they work; or, maybe more

importantly, why didn't they?

Of course, since production styles change rapidly, you need to take into consideration differences in time, locations, and audiences. This link will take you to more information on the success and failure of TV programs.

Determine the Basic Value

of Your Production

4. Next, *determine the overall value of the production to a sponsor or underwriter.* Obviously, underwriters and advertisers want something in return for their investment

For this, you'll need to ask yourself some questions. First, what is the probable size of the audience? In determining this, you must know if your show will be a one-shot presentation or if you can recoup production expenses over time by presenting the show to other audiences.

Generally, the larger the audience the more marketable a production will be to an underwriter or advertiser.

At the same time, simple numbers don't tell the full story.

Let's say an advertiser has a product designed for young people -- athletic shoes or designer jeans. In this case, a production that draws a large percentage of this age group will be more valuable than a production that has a larger overall audience, but a lower percentage of young people.

Broadcasters have canceled many TV series, *not* because they had a small audience, but because they had the *wrong kind* of audience (the

wrong demographics).

- You'll always want to balance the potential value of a production to an advertiser or underwriter with the projected cost of producing and presenting the production.

If the costs exceed the benefits, you have a problems!

In commercial television, the return on investment is generally in the form of increased sales and profits. But it may take other forms, such as the expected moral, political, spiritual, or public relations benefit derived from the program.

Topic 004

The making of a Music Program

The production process is commonly broken down into preproduction, production, and postproduction, which some people roughly characterize as "before, during, and after."

Following points are required for program proposal:

- Theme of program (Concept, Idea)
- Script of program (Written content)
- Format of program (Sequence)
- Studio Arrangement (Set Designing)
- Talent for the program (Panel guests)

Sample

Program Proposal

"Underwater Explorations" will be a weekly, 30-minute studio production featuring guests supplying their own video or film footage of their underwater exploits around the world.

The proposed host for the show is Dr. Steve Adams, who has an established track record with us and WCFX-TV for doing marine specials. Each week he will have a new guest with new experiences.

Given the numerous people within our seacoast broadcast area who regularly document their diving expeditions, we will have no trouble finding guests with exciting footage and stories to tell. In particular we want to feature in-studio close-ups of artifacts that have been salvaged during underwater expeditions.

Initially, two guests who have documented the discovery of sunken ships are interested in appearing. In addition, we want to feature experts in marine life from the local university who have dramatic and colorful digital footage of a wide variety of underwater life forms.

Dave's Dive Shop and Marty's Marine Supply have tentatively committed as sponsors. Numerous other potential sponsors also exist within our broadcast area.

Production costs would be minimal. The production could be done "live-on-tape" on Wednesday evenings in Studio B with three cameras — one typically reserved for tabletop close-ups of exhibits. Dr. Adams indicates he would be willing to host/produce the show for $950 per program. Our initial contract with Dr. Adams would be for 13 shows.

Although the guests would appear without compensation, the potential sponsors have indicated that they would give the guests gifts in exchange for on-air acknowledgments.

The Sunday afternoon broadcast time slot now occupied by *What In the World?,* (which concludes April 2nd,) seems most appropriate, although the final decision on this would be up to Programming.

Initially, the show would be done in three blocks:

Block #1 - Introduction of the guest; overview of the day's topic with a brief look at footage and exhibits. (about 7 min.)

Commercial break.

Block #2 - Discussion of the topic, primarily VO [voice over] concentrating on underwater footage and in-studio close-ups of artifacts.

Commercial break.

Block #3 - Discussion and conclusion, again primarily VO concentrating on underwater footage and in-studio close-ups of artifacts.

- As commercial support increased we would have the option of going to four blocks separated by three commercial breaks.

Dr. Adams has already been contacted by WCFX-TV about doing another special for them. If he hosted "Underwater Explorations," we would obviously prefer him to be under exclusive contract with us for the duration of the series. He has agreed to wait 30 -days for our decision on "Underwater Explorations."

Topic 005

Concerns of a Music Producer

Producer

The producer functions as a creative leader of any studio, film, television, or radio recording project. Producers work mainly with recording acts and record labels to produce records. They also work with composers and produce sound recordings for film, TV and other forms of multimedia, as well. The producer supervises all aspects of the recording process, including contracting session players and overseeing the recording budget. A producer may also help the artist select songs to be recorded. Preferably, a producer should be an excellent musician with a lot of performing experience and a great depth of musical, acoustical, and studio technical understanding.

What does a Music Producer do?

A music producer is the visionary for the overall sound and feel of a record or album. They visualize and imagine the end result, so they must be able to listen, experiment, and explore all aspects of music. Since producers can have a diverse set of skills, there are several potential roles they can play. Though not exclusive, some of these roles are:

Engineer -

in charge of the technical aspects of recording and mixing tracks

Composer -

writes and directs original music

Arranger -

collaborates and works for an artist to make the recorded version of the artist's song(s)

Remixer -

takes parts from a recording to make a new version

Musician -

performs the instrumental or vocal part of a track

Mentor -

passively follows and helps an artist make decisions on their record

Project Manager -

in charge of making sure the album gets produced; from hiring the right people to getting the job done and making sure all deadlines are met

A producer's skill is not directly tied to their technical knowledge of music, like playing an instrument or understanding how the technology works, though that is a huge help. Their main role is overseeing the entire production of an album, from working with sound engineers, managers, songwriters and artists, and creating a cohesive environment where all parties can work together and produce an album that gets everyone excited. Most importantly, the producer is in charge of making a song sound the way he or she thinks it should sound to be competitive within its market.

What is the workplace of a Music Producer like?

The typical workplace of a music producer is in a music studio where the majority of time is spent working with sound engineers and artists to perfect the production of a song. While a lot of time is spent with other professionals, there is also time spent alone in the studio making a track sound just right. Music producers sometimes work long or irregular hours to meet deadlines.

Topic 006

Budgets of a Program

Costing Out

A Production

*A*lthough you may have come up with a truly great idea for a production -- one you're certain will make you famous! -- unless you can raise the money to get it produced it'll remain simply that: a great idea.

So the first question is *what will it cost to produce?*

Even if you have no interest in producing, the better your grasp of this issue, the better your chance of success.

And keep in mind that no production company will commit to a production without a reasonable idea of how much it will cost.

We call this process costing out a production.

Traditionally, we think of expenses as falling into two broad areas: *above-the-line* and *below-the-line.*

Above-the-Line and Below-the-Line

- Although the "line" blurs at times, above-the-line expenses generally relate to the performing and producing elements: talent, script, music, and others.

Below-the-line elements refer to two broad areas:

- the physical elements: sets, props, make-up, wardrobe, graphics, transportation, production equipment, studio facilities, and editing
- the technical personnel: stage manager, engineering personnel, video recording operators, audio operators, and general labor

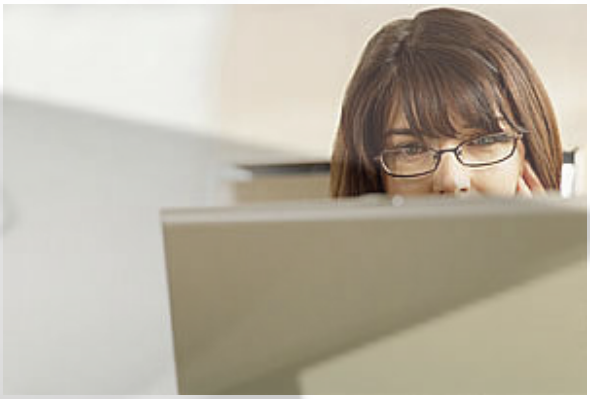
To cost out a major production accurately, you can go beyond the above-the-line and below-the-line designations and divide production into at least 15 categories:

1. preproduction costs
2. location scouting and related travel expenses
3. studio rental
4. sets and set construction
5. on-location expenses
6. equipment rental
7. video recording and duplication
8. production crew costs
9. producer, director, writer, creative fees
10. on-camera talent costs
11. insurance, shooting permits, contingencies, etc.
12. online and offline editing

13. advertising, promotion, and publicity

14. research and follow-up

15. materials, supplies, and miscellaneous expenses



Smaller productions, of course, will not involve all of these categories.

You can list these categories in a column on the left side of a computer spreadsheet program, such as Microsoft Excel or the spreadsheet program in the free Open Office suite.

Under each category you can then add items and their costs. You can then add corresponding formulas that will automatically generate totals for each category as you go along, as well as a grand total.

Renting vs. Buying Equipment

Note that one of the categories covers equipment rental. Except for studio equipment that's used every day, it's often more economical to rent equipment rather than buy it.

There are four basic reasons.

First, production equipment becomes outdated quickly. At more than $70,000 for a top-notch video camera, you might assume you'll recoup the cost through several years' use. If you pay cash for a $70,000 camera and use it five years, the cost breaks down to $14,000 a year, plus

repair and maintenance expenses.

Even though the camera might still be reliable after five years, compared to the newer models it will be outdated. It may even be difficult to find parts.

Several different production facilities can use equipment available for rent, however.

This means the rental company can write off the initial investment on their taxes more quickly, making it possible to replace the equipment with newer models.

Even for consumer grade equipment, the rental cost (which may be only $50 a day) might make sense if you'll use it for just a few days.

Second, the rental company, rather than the production facility, is responsible for repair, maintenance, and updating.

If equipment breaks down during a shoot (production), rental companies will typically replace it within a few hours.

Third, renting provides an income tax advantage. When equipment is purchased, it must be depreciated (written off on income tax) over a number of years.

But sometimes this time span exceeds the practical usefulness of the equipment. This may mean that the production facility will need to sell the used equipment in order to recoup some of their initial investment. (Companies often donate their equipment to schools for a tax write-off.)

If you rent non-studio equipment, however, you can write it off immediately as a production expense.

Although rules governing income taxes change regularly, deducting the cost of rental equipment can represent a quicker, simpler -- and in many cases greater -- tax deduction.

Finally, when you rent equipment, you increase the opportunities to obtain equipment that will meet the specific needs of your production. Purchasing equipment can generate pressure to use it, even though at times other makes and models might be better suited to your needs.

Again, in each of these examples, we're talking about equipment that you wouldn't use every day.

Approaches to

Attributing Costs

▶ Once you figure out the cost of a production, you may need to justify it, either in terms of cost-effectiveness or expected results.

There are three bases on which to measure cost effectiveness:

- cost per minute
- cost per viewer
- cost vs. measured benefits

Cost Per Minute

▶ Cost per minute is relatively easy to determine; simply divide the final production cost by the duration of the finished product. For example, if a 30-minute production costs $120,000, the cost per minute is $4,000.

Cost Per Viewer

- Cost per viewer is also relatively simple to figure out; divide the total production cost by the actual or anticipated audience.

In the field of advertising, CPM or cost-per-*thousand* (not cost per million) is a common measure.

If 100,000 people see a show that costs $5,000 to produce, the CPM is $50. On a cost-per-viewer basis, this comes out to be only five cents a person.

Cost Per Measured Results

- Cost per measured results is the most difficult to determine. Here, we must measure production costs against intended results.

Suppose that after airing one 60-second commercial we'll sell 300,000 packages of razor blades at a resulting profit of $100,000. If we spent a million dollars producing and airing the commercial, we would have to question whether it was good investment.

But, advertisers air most ads more than once.

If the cost of TV time is $10,000 and we sell 300,000 packages of razor blades after each airing, we will soon show a profit.

All of these "measured results" are easily determined by a calculator.

Return on Investment

- Things may not be this simple, however.

What if we also run ads in newspapers and on radio, and we have huge, colorful displays in stores?

Then it becomes difficult to determine the cost-effectiveness of each medium, and the question becomes, which approaches are paying off and which aren't?

And there can be another issue. We can count razor blades, but it may be more difficult to determine the returns on other "products."

For example, it's very difficult to determine the effectiveness of programming on altering human behavior and attitudes.

How do you quantify the return on investment of public service announcements designed to get viewers to stop smoking, "buckle up for safety," or preserve clean air and water?

Even if we conduct before-and-after surveys to measure changes in public awareness, it can be almost impossible to factor out the influence of the host of other voices the public may encounter on that issue.

Apart from in-depth interviews with viewers, we may have to rely largely on "the record."

If we know a series of 60-second TV spots increases razor blade sales by 300,000, we might assume a 60-second PSA (public service announcement) would also have some influence on smoking, buckling seat belts, and preserving clean air and water. The question is how many people modified their behavior as *a direct result* of your PSA?

This is important for nonprofits and other organizations to know in order to determine the best use of their informational and educational dollars.

- With some of the major preproduction concerns covered, our next step is to become familiar with the tools of production.

To understand these, we'll need to start with the basics of the medium itself.

Topic 007

Grammar of Television-Introduction

The 'Grammar' of Television and Film

Television and film use certain common conventions often referred to as the 'grammar' of these audiovisual media. This list includes some of the most important conventions for conveying meaning through particular camera and editing techniques (as well as some of the specialised vocabulary of film production).

Conventions aren't rules: expert practitioners break them for deliberate effect, which is one of the rare occasions that we become aware of what the convention is.

Camera Techniques: Distance and Angle

Long shot (LS). Shot which shows all or most of a fairly large subject (for example, a person) and usually much of the surroundings. Extreme Long Shot (ELS) - see establishing shot: In this type of shot the camera is at its furthest distance from the subject, emphasising the background. Medium Long Shot (MLS): In the case of a standing actor, the lower frame line cuts off his feet and ankles. Some documentaries with social themes favour keeping people in the longer shots, keeping social circumstances rather than the individual as the focus of attention.

Establishing shot. Opening shot or sequence, frequently an exterior 'General View' as an Extreme Long Shot (ELS). Used to set the scene.

Medium shots. Medium Shot or Mid-Shot (MS). In such a shot the subject or actor and its setting occupy roughly equal areas in the frame. In the case of the standing actor, the lower frame passes through the waist. There is space for hand gestures to be seen. Medium Close Shot (MCS): The setting can still be seen. The lower frame line passes through the chest of the actor. Medium shots are frequently used for the tight presentation of two actors (the two shot), or with dexterity three (the three shot).

Close-up (CU). A picture which shows a fairly small part of the scene, such as a character's face, in great detail so that it fills the screen. It abstracts the subject from a context. MCU (Medium Close-Up): head and shoulders. BCU (Big Close-Up): forehead to chin. Close-ups focus attention on a person's feelings or reactions, and are sometimes used in interviews to show people in a state of emotional excitement, grief or joy. In interviews, the use of BCUs may emphasise the interviewee's tension and suggest lying or guilt. BCUs are rarely used for important public figures; MCUs are preferred, the camera providing a sense of distance. Note that in western cultures the space within about 24 inches (60 cm) is generally felt to be private space, and BCUs may be invasive.

Angle of shot. The direction and height from which the camera takes the scene. The convention is that in 'factual' programmes subjects should be shot from eye-level only. In a high angle the camera looks down at a character, making the viewer feel more powerful than him or her, or suggesting an air of detachment. A low angle shot places camera below the character, exaggerating his or her importance. An overhead shot is one made from a position directly above the action.

Viewpoint. The apparent distance and angle from which the camera views and records the subject. Not to be confused with point-of-view shots or subjective camera shots.

Point-of-view shot (POV). A shot made from a camera position close to the line of sight of a performer who is to be watching the action shown in the point-of-view shot.

Two-shot. A shot of two people together.

Selective focus. Rendering only part of the action field in sharp focus through the use of a shallow depth of field. A shift of focus from foreground to background or vice versa is called rack focus.

Soft focus. An effect in which the sharpness of an image, or part of it, is reduced by the use of an optical device.

Wide-angle shot. A shot of a broad field of action taken with a wide-angle lens.

Tilted shot. When the camera is tilted on its axis so that normally vertical lines appear slanted to the left or right, ordinary expectations are frustrated. Such shots are often used in mystery and suspense films to create a sense of unease in the viewer.

Camera Techniques: Movement

Zoom. In zooming in the camera does not move; the lens is focussed down from a long-shot to a close-up whilst the picture is still being shown. The subject is magnified, and attention is concentrated on details previously invisible as the shot tightens (contrast tracking). It may be used to surprise the viewer. Zooming out reveals more of the scene (perhaps where a character is, or to whom he or she is speaking) as the shot widens. Zooming in rapidly brings not only the subject but also the background hurtling towards the viewer, which can be disconcerting. Zooming in and then out creates an ugly 'yo-yo' effect.

Following pan. The camera swivels (in the same base position) to follow a moving subject. A space is left in front of the subject: the pan 'leads' rather than 'trails'. A pan usually begins and ends with a few seconds of still picture to give greater impact. The speed of a pan across a subject creates a particular mood as well as establishing the viewer's relationship with the subject. 'Hosepiping' is continually panning across from one person to another; it looks clumsy.

Surveying pan. The camera slowly searches the scene: may build to a climax or anticlimax.

Tilt. A vertical movement of the camera - up or down- while the camera mounting stays fixed.

Crab. The camera moves (crabs) right or left.

Tracking (dollying). Tracking involves the camera itself being moved smoothly towards or away from the subject (contrast with zooming). Tracking in (like zooming) draws the viewer into a closer, more intense relationship with the subject; moving away tends to create emotional distance. Tracking back tends to divert attention to the edges of the screen. The speed of tracking may affect the viewer's mood. Rapid tracking (especially tracking in) is exciting; tracking back relaxes interest. In a dramatic narrative we may sometimes be drawn forward towards a subject against our will. Camera movement parallel to a moving subject permits speed without drawing attention to the camera itself.

Hand-held camera. A hand-held camera can produce a jerky, bouncy, unsteady image which may create a sense of immediacy or chaos. Its use is a form of subjective treatment.

Process shot. A shot made of action in front of a rear projection screen having on it still or moving images as a background.

Editing Techniques

Cut. Sudden change of shot from one viewpoint or location to another. On television cuts occur on average about every 7 or 8 seconds. Cutting may:

- change the scene;
- compress time;
- vary the point of view; or
- build up an image or idea.

There is always a reason for a cut, and you should ask yourself what the reason is. Less abrupt transitions are achieved with the fade, dissolve, and wipe

Matched cut. In a 'matched cut' a familiar relationship between the shots may make the change seem smooth:

- continuity of direction;
- completed action;*
- a similar centre of attention in the frame;
- a one-step change of shot size (e.g. long to medium);
- a change of angle (conventionally at least 30 degrees).

*The cut is usually made on an action (for example, a person begins to turn towards a door in one shot; the next shot, taken from the doorway, catches him completing the turn). Because the viewer's eye is absorbed by the action he is unlikely to notice the movement of the cut itself.

Jump cut. Abrupt switch from one scene to another which may be used deliberately to make a dramatic point. Sometimes boldly used to begin or end action. Alternatively, it may be result of poor pictorial continuity, perhaps from deleting a section.

Motivated cut. Cut made just at the point where what has occurred makes the viewer immediately want to see something which is not currently visible (causing us, for instance, to accept compression of time). A typical feature is the shot/reverse shot technique (cuts coinciding with changes of speaker). Editing and camera work appear to be determined by the action. It is intimately associated with the 'privileged point of view' (see narrative style: objectivity).

Cutting rate. Frequent cuts may be used as deliberate interruptions to shock, surprise or emphasize.

Cutting rhythm. A cutting rhythm may be progressively shortened to increase tension. Cutting rhythm may create an exciting, lyrical or staccato effect in the viewer.

Cross-cut. A cut from one line of action to another. Also applied as an adjectuve to sequences which use such cuts.

Cutaway/cutaway shot (CA). A bridging, intercut shot between two shots of the same subject. It represents a secondary activity occurring at the same time as the main action. It may be preceded by a definite look or glance out of frame by a participant, or it may show something of which those in the preceding shot are unaware. (See narrative style: parallel development) It may be used to avoid the technical ugliness of a 'jump cut' where there would be uncomfortable jumps in time, place or viewpoint. It is often used to shortcut the passing of time.

Reaction shot. Any shot, usually a cutaway, in which a participant reacts to action which has just occurred.

Insert/insert shot. A bridging close-up shot inserted into the larger context, offering an essential detail of the scene (or a reshooting of the action with a different shot size or angle.)

Buffer shot (neutral shot). A bridging shot (normally taken with a separate camera) to separate two shots which would have reversed the continuity of direction.

Fade, dissolve (mix). Both fades and dissolves are gradual transitions between shots. In a fade the picture gradually appears from (fades in) or disappears to (fades out) a blank screen. A slow fade-in is a quiet introduction to a scene; a slow fade-out is a peaceful ending. Time lapses are often suggested by a slow fade-out and fade-in. A dissolve (or mix) involves fading out one picture while fading up another on top of it. The impression is of an image merging into and then becoming another. A slow mix usually suggests differences in time and place. Defocus or ripple dissolves are sometimes used to indicate flashbacks in time.

Superimpositions. Two of more images placed directly over each other (e.g. and eye and a camera lens to create a visual metaphor).

Wipe. An optical effect marking a transition between two shots. It appears to supplant an image by wiping it off the screen (as a line or in some complex pattern, such as by appearing to turn a page). The wipe is a technique which draws attention to itself and acts as a clear marker of change.

Inset. An inset is a special visual effect whereby a reduced shot is superimposed on the main shot. Often used to reveal a close-up detail of the main shot.

Split screen. The division of the screen into parts which can show the viewer several images at the same time (sometimes the same action from slightly different perspectives, sometimes similar actions at different times). This can convey the excitement and frenzy of certain activities, but it can also overload the viewer.

Stock shot. Footage already available and used for another purpose than the one for which it was originally filmed.

Invisible editing: See narrative style: continuity editing.

Manipulating Time

Screen time: a period of time represented by events within a film (e.g. a day, a week).

Subjective time. The time experienced or felt by a character in a film, as revealed through camera movement and editing (e.g. when a frightened person's flight from danger is prolonged).

Compressed time. The compression of time between sequences or scenes, and within scenes. This is the most frequent manipulation of time in films: it is achieved with cuts or dissolves. In a dramatic narative, if climbing a staircase is not a significant part of the plot, a shot of a character starting up the stairs may then cut to him entering a room. The logic of the situation and our past experience of medium tells us that the room is somewhere at the top of the stairs. Long journeys can be compressed into seconds. Time may also be compressed between cutaways in parallel editing. More subtle compression can occur after reaction shots or close-ups have intervened. The use of dissolves was once a cue for the passage of a relatively long period of time.

Long take. A single shot (or take, or run of the camera) which lasts for a relatively lengthy period of time. The long take has an 'authentic' feel since it is not inherently dramatic.

Simultaneous time. Events in different places can be presented as occurring at the same moment, by parallel editing or cross-cutting, by multiple images or split-screen. The conventional clue to indicate that events or shots are taking place at the same time is that there is no progression of shots: shots are either inserted into the main action or alternated with each other until the strands are somehow united.

Slow motion. Action which takes place on the screen at a slower rate than the rate at which the action took place before the camera. This is used: a) to make a fast action visible; b) to make a

familiar action strange; c) to emphasise a dramatic moment. It can have a lyric and romantic quality or it can amplify violence.

Accelerated motion (undercranking) . This is used: a) to make a slow action visible; b) to make a familiar action funny; c) to increase the thrill of speed.

Reverse motion. Reproducing action backwards, for comic, magical or explanatory effect.

Replay. An action sequence repeated, often in slow motion, commonly featured in the filming of sport to review a significant event.

Freeze-frame. This gives the image the appearance of a still photograph. Clearly not a naturalistic device.

Flashback. A break in the chronology of a narrative in which events from the past are disclosed to the viewer. Formerly indicated conventionally with defocus or ripple dissolves.

Flashforward. Much less common than the flashback. Not normally associated with a particular character. Associated with objective treatments.

Extended or expanded time/overlapping action. The expansion of time can be accomplished by intercutting a series of shots, or by filming the action from different angles and editing them together. Part of an action may be repeated from another viewpoint, e.g. a character is shown from the inside of a building opening a door and the next shot, from the outside, shows him opening it again. Used nakedly this device disrupts the audience's sense of real time. The technique may be used unobtrusively to stretch time, perhaps to exaggerate, for dramatic effect, the time taken to walk down a corridor. Sometimes combined with slow motion.

Ambiguous time. Within the context of a well-defined time-scheme sequences may occur which are ambiguous in time. This is most frequently comunicated through dissolves and superimpositions.

Universal time. This is deliberately created to suggest universal relevance. Ideas rather than examples are emphasised. Context may be disrupted by frequent cuts and by the extensive use of close-ups and other shots which do not reveal a specific background.

Use of Sound

Direct sound. Live sound. This may have a sense of freshness, spontaneity and 'authentic' atmosphere, but it may not be acoustically ideal.

Studio sound. Sound recorded in the studio to improve the sound quality, eliminating unwanted background noise ('ambient sound'), e.g. dubbed dialogue. This may be then mixed with live environmental sound.

Selective sound. The removal of some sounds and the retention of others to make significant sounds more recognizable, or for dramatic effect - to create atmosphere, meaning and emotional nuance. Selective sound (and amplification) may make us aware of a watch or a bomb ticking. This can sometimes be a subjective device, leading us to identify with a character: to hear what he or she hears. Sound may be so selective that the lack of ambient sound can make it seem artificial or expressionistic.

Sound perspective/aural perspective. The impression of distance in sound, usually created through the use of selective sound. Note that even in live television a microphone is deliberately positioned, just as the camera is, and therefore may privilege certain participants.

Sound bridge. Adding to continuity through sound, by running sound (narration, dialogue or music) from one shot across a cut to another shot to make the action seem uninterrupted.

Dubbed dialogue. Post-recording the voice-track in the studio, the actors matching their words to the on-screen lip movements. Not confined to foreign-language dubbing.

Wildtrack (asynchronous sound). Sound which was self-evidently recorded separately from the visuals with which it is shown. For example, a studio voice-over added to a visual sequence later.

Parallel (synchronous) sound. Sound 'caused' by some event on screen, and which matches the action.

Commentary/voice-over narration. Commentary spoken off-screen over the shots shown. The voice-over can be used to:

- introduce particular parts of a programme;
- to add extra information not evident from the picture;
- to interpret the images for the audience from a particular point of view;
- to link parts of a sequence or programme together.

The commentary confers authority on a particular interpretation, particularly if the tone is moderate, assured and reasoned. In dramatic films, it may be the voice of one of the characters, unheard by the others.

Sound effects (SFX). Any sound from any source other than synchronised dialogue, narration or music. Dubbed-in sound effects can add to the illusion of reality: a stage- set door may gain from the addition of the sound of a heavy door slamming or creaking.

Music. Music helps to establish a sense of the pace of the accompanying scene. The rhythm of music usually dictates the rhythm of the cuts. The emotional colouring of the music also reinforces the mood of the scene. Background music is asynchronous music which accompanies a film. It is not normally intended to be noticeable. Conventionally, background music accelerates for a chase sequence, becomes louder to underscore a dramatically important action.

Through repetition it can also link shots, scenes and sequences. Foreground music is often synchronous music which finds its source within the screen events (e.g. from a radio, TV, stereo or musicians in the scene). It may be a more credible and dramatically plausible way of bringing music into a programme than background music (a string orchestra sometimes seems bizarre in a Western).

Silence. The juxtaposition of an image and silence can frustrate expectations, provoke odd, self-conscious responses, intensify our attention, make us apprehensive, or make us feel dissociated from reality.

Lighting

Soft and harsh lighting. Soft and harsh lighting can manipulate a viewer's attitude towards a setting or a character. The way light is used can make objects, people and environments look beautiful or ugly, soft or harsh, artificial or real. Light may be used expressively or realitically.

Backlighting. A romantic heroine is often backlit to create a halo effect on her hair.

Graphics

Text. Titles appear at or near the start of the programme. Their style - typeface, size, colour, background and pace - (together with music) can establish expectations about the atmosphere and style of the programme. Credits listing the main actors, the director, and so on, are normally shown at or near the beginning, whilst those listing the rest of the actors and programme makers are normally shown at the end. Some American narrative series begin with a lengthy pre-credit sequence. Credits are frequently superimposed on action or stills, and may be shown as a sequence of frames or scrolled up the screen. Captions are commonly used in news and documentaries to identify speakers, in documentaries, documentary dramas and dramatic naratives to indicate dates or locations. Subtitles at the bottom of the screen are usually used for translation or for the benefit of the hearing-impaired.

Graphics. Maps, graphs and diagrams are associated primarily with news, documentary and educational programmes.

Animation. Creating an illusion of movement, by inter-cutting stills, using graphics with movable sections, using step-by-step changes, or control wire activation.

Narrative style

Subjective treatment. The camera treatment is called 'subjective' when the viewer is treated as a participant (e.g. when the camera is addressed directly or when it imitates the viewpoint or movement of a character). We may be shown not only what a character sees, but how he or she sees it. A temporary 'first-person' use of camera as the character can be effective in conveying unusual states of mind or powerful experiences, such as dreaming, remembering, or moving very

fast. If overused, it can draw too much attention to the camera. Moving the camera (or zooming) is a subjective camera effect, especially if the movement is not gradual or smooth.

Objective treatment. The 'objective point of view' involves treating the viewer as an observer. A major example is the 'privileged point of view' which involves watching from omniscient vantage points. Keeping the camera still whilst the subject moves towards or away from it is an objective camera effect.

Parallel development/parallel editing/cross-cutting. An intercut sequence of shots in which the camera shifts back and forth between one scene and another. Two distinct but related events seem to be happening at approximately the same time. A chase is a good example. Each scene serves as a cutaway for the other. Adds tension and excitement to dramatic action.

'Invisible editing'. This is the omniscient style of the realist feature films developed in Hollywood. The vast majority of narrative films are now edited in this way. The cuts are intended to be unobtrusive except for special dramatic shots. It supports rather than dominates the narrative: the story and the behaviour of its characters are the centre of attention. The technique gives the impression that the edits are always required are motivated by the events in the 'reality' that the camera is recording rather than the result of a desire to tell a story in a particular way. The 'seamlessness' convinces us of its 'realism', but its devices include:

- the use of matched cuts (rather than jump cuts);
- motivated cuts;
- changes of shot through camera movement;
- long takes;
- the use of the sound bridge;
- parallel development.

The editing isn't really 'invisible', but the conventions have become so familiar to visual literates that they no longer consciously notice them.

Mise-en-scene. (Contrast montage). 'Realistic' technique whereby meaning is conveyed through the relationship of things visible within a single shot (rather than, as with montage, the relationship between shots). An attempt is preserve space and time as much as possible; editing or fragmenting of scenes is minimised. Composition is therefore extremely important. The way people stand and move in relation to each other is important. Long shots and long takes are characteristic.

Montage/montage editing. In its broadest meaning, the process of cutting up film and editing it into the screened sequence. However, it may also be used to mean intellectual montage - the justaposition of short shots to represent action or ideas - or (especially in Hollywood), simply cutting between shots to condense a series of events. Intellectual montage is used to consciously convey subjective messages through the juxtaposition of shots which are related in composition or movement, through repetition of images, through cutting rhythm, detail or metaphor. Montage editing, unlike invisible editing, uses conspicuous techniques which may include: use of close-

ups, relatively frequent cuts, dissolves, superimposition, fades and jump cuts. Such editing should suggest a particular meaning.

Talk to camera. The sight of a person looking ('full face') and talking directly at the camera establishes their authority or 'expert' status with the audience. Only certain people are normally allowed to do this, such as announcers, presenters, newsreaders, weather forecasters, interviewers, anchor-persons, and, on special occasions (e.g. ministerial broadcasts), key public figures. The words of 'ordinary' people are normally mediated by an interviewer. In a play or film talking to camera clearly breaks out of naturalistic conventions (the speaker may seem like an obtrusive narrator). A short sequence of this kind in a 'factual' programme is called a 'piece to camera'.

Tone. The mood or atmosphere of a programme (e.g. ironic, comic, nostalgic, romantic).

Formats and other features

Shot. A single run of the camera or the piece of film resulting from such a run.

Scene. A dramatic unit composed of a single or several shots. A scene usually takes place in a continuous time period, in the same setting, and involves the same characters.

Sequence. A dramatic unit composed of several scenes, all linked together by their emotional and narrative momentum.

Genre. Broad category of television or film programme. Genres include: soap operas, documentaries, game shows, 'cop shows' (police dramas), news programmes, 'chat' shows, phone-ins and sitcoms (situation comedies).

Series. A succession of programmes with a standard format.

Serial. An ongoing story in which each episode takes up where the last one left off. Soap operas are serials.

Talking heads. In some science programmes extensive use is made of interviews with a succession of specialists/ experts (the interviewer's questions having been edited out). This derogatively referred to as 'talking heads'. Speakers are sometimes allowed to talk to camera. The various interviews are sometimes cut together as if it were a debate, although the speakers are rarely in direct conversation.

Vox pop. Short for 'vox populi', Latin for 'voice of the people'. The same question is put to a range of people to give a flavour of 'what ordinary people think' about some issue. Answers are selected and edited together to achieve a rapid-fire stream of opinions.

Intertextuality. Intertextuality refers to relationships between different elements of a medium (e.g. formats and participants), and links with other media. One aspect of intertextuality is that programme participants who are known to the audience from other programmes bring with them

images established in other contexts which effect the audience's perception of their current role. Another concerns issues arising from sandwiching advertisements between programmes on commercial television (young children, in particular, may make no clear distinction between them).

Topic 008

Action and Angle of Acceptance

The camera works on the principal of human eye and it shows what all the human eye watches through its lens. The eye retains the image for 1/16 second while the camera works at the speed of 25 frames per second and that's why the fractions of frames or pictures seem to be moving on the screen.

Camera functions

The camera can be utilized as per the requirement of the shot, situation of he programmes and the mood of the scene. There are following camera functions generally used in television productions.

Movement of lens of camera
During this technique only lens of the camera is moved

Zoom in
Image coming close to viewer

Zoom out
Image going away from the viewer

Focus
Image becoming sharp

Defocus
Image getting blur

Movement of camera itself
During this technique camera itself is moved

Pan right
Camera is moved towards right side

Pan left
Camera is moved towards left side

Tilt up
Camera is moved upwards

Tilt down
Camera is moved downwards
Movement of camera with tripod

During this technique the camera is moved with the pedestal or tripod leaving its place as well.

Dolly in

Camera is moved close to the object

Dolly out

Camera is moved away from the object

Track right

Camera is moved to the right side of the object

Topic 009

Avoid Shots and Boom

Sound for Film and Television

The Boom—Why, Isn't That Old Fashioned? Although it may be old fashioned, mics on booms usually work best for dialog recording. The best position is on a boom or fishpole above the frameline and in the center of the frame. Among other things, this is because the perspective matches that of the camera. If an actor should happen to turn and face out of the frame we hear the change of going from "on mic" to "off mic" as natural. The on-mic position sounds clearer and less reverberant, whereas off mic sounds a little duller and more reverberant, and this matches our common experience.

Capturing the sound of the voice well, its timbre, is the second reason an overhead boom is desirable. Talkers sound clearer to the front and above compared to the side and below the axis of their mouth. Because mics in front of talkers are on a line with the camera, this position is only possible occasionally when the mic is allowed to show in the shot, such as on a podium from which a speech is being made by an actor, making the overhead position the best available for most situations.

A microphone centered underneath the frameline can be considered to be a fallback position, but it is not as desirable, because this position often sounds "chesty," emphasizing midbass, and less clear than above. Also, if the microphone thus has to be near the floor, it will receive interfering reflections off the floor that can color the sound. If the microphone has to be placed to one side of the frame, in the case in which there is a very wide and low shot that does not permit either an overhead or an under- hand position, then perspective problems arise. Whether this is successful depends on the blocking of the scene. If an actor should turn toward and then away from the microphone while speaking, he or she will sound on mic when facing one direction and off mic facing the other, even though both angles may be the same to the camera. This then sounds artificial as we come to understand at least subconsciously where the microphone is.

A large potential problem exists with microphones that must be close to surfaces but cannot be made nearly integral to those surfaces. The problem lies with the strong potential reflection off the surface, which arrives slightly later at the microphone than the direct sound. This gives rise to

constructive and destructive interference, which results in a regular series of peaks and dips in the fre- quency response that can be quite audible. All in all, microphones prefer a lot of “air” around them, so that nearby reflections are minimized, or they should be made an integral part of the surface, as in the boundary-layer method to be discussed. If a boom microphone needs to be placed near a ceiling because of low ceiling height on a location set, the reflection off the ceiling may be ameliorated by taping an area of absorbing material to the region of the ceiling above where the microphone has to work. Thicker material covering more area will be more effective than thin material covering a small area.

For boom mics in their ordinary location above the frame, there is a large difference between film and video cameras to be aware of. Film camera viewfinders show a larger area than do most video cameras. It is common for film cameras to have etched lines showing the frameline for the format in use in the viewfinder and for the operator to be able to see a fair amount outside the frameline. This gives a film camera operator an advantage as they can tell when the boom mic is about to intrude into a shot. Video cameras do not have this feature: their video viewfinder shows just what is scanned. So a videographer is perhaps naturally more insistent that the boom mic be placed higher than we might consider necessary, because he or she has no “early warning” system to know when the micro- phone might intrude into the shot. A few high-end digital cinema cameras, which are upgraded high-definition video cameras, have optical viewfinders to overcome this limitation of most video cameras and work in the same way as film cameras with respect to the viewfinder.

Boom and Fishpole Operation

“Booming” is such an important job that a boom operator can make or break a recording, even though he or she is subordinate to the production sound mixer in the staffing hierarchy. For fiction filmmaking, the boom operator learns the scene and positions the microphone from moment to moment to best effect. The operator learns the script extremely well, as well as anyone on the set. Rehearsals are essential. Cinematographer Haskell Wexler says “I can’t light a set;
let me see the rehearsal,” because it is the actors he is lighting, not the set. Likewise the boom operator needs rehearsal to optimize the mic location through the course of a scene. Having stand-ins for the stars to do the lighting usually does not help the sound department, because stand-ins are not trained actors who speak lines. It is often said that actors must just “hit their

marks and say their lines," because it is essential for the camera focus puller to obtain sharp focus by having the actors "hit their marks," often mapped out on the floor. Although it would be a good idea to be able to hear, in advance of a camera rehearsal with the actual actors, how they are going to sound with a particular microphone setup, this happens infrequently. The rehearsal with the stand-ins can reveal problems with boom shadows though, and can give a rough idea of booming, so it is nonetheless useful.

Proper Boom Operating Position

Boom operators have a much more interesting job than one might think at first glance. Although sometimes it is thought of as a job just anybody can do—"just a big kid out of high school with strong arms," as producer Gene Corman explained it to me (while I was doing the boom operator's job on a show!)—boom operators have perhaps the most input to

Good boom operators, after a long day on the set, read the script for the next day's shooting, and memorize it. During complicated master shots, for instance, the micro- phone is likely to be constantly in motion, getting the actor who is speaking on mic, and missing a cue would cause an obvious change in perspective, so must be avoided. This is why the boom operator must know the script.

On many sets today, the director is huddled over a video monitor during takes, shielded from the sun. It reminds one of early photographers under their black cloth so they could see the ground glass of the camera. The camera operator is looking through the viewfinder. The script supervisor is sitting underneath the camera, and the eyeline of the actor would look wrong pointed in his or her direction. There is lots of lighting from multiple directions, effectively blinding the actor from looking in those directions. All these being considered, that leaves the boom operator as a point of human contact. There are stories of actors coming at the end of the day to the boom operator, who has shared an emotional moment by shedding a tear with the actor, and thanking the boom operator for the connection.

A major issue in the operation of either a boom or a fishpole is the potential for boom shadows. Stanley Kubrick was a still photographer before becoming a director. He decided to light a loft interior in New York himself for his second film, Killer's Kiss. He threw everybody out of the room, and proceeded to light this large, white space evenly over the course of several hours. He then called in the crew and actors. The moment the boom was put up, multiple shadows were

obvious. And when the actors moved and the boom followed, those pesky shadows moved too, making them all the more obvious. Kubrick asked the sound mixer if the boom was necessary. Told that it was, Kubrick fired the sound crew and recorded the dialog on a bad, nonsync recorder just to know what was said (important because actors don't always follow the script exactly). He then spent the next 4 months himself recording and postsyncing the dialog, adding footsteps, ambience, etc. On his next show, he hired a professional gaffer!

The best position for a boom or fishpole operator is usually to the left side of the camera facing the scene and a little in front of the camera. This is because the camera operator is virtually always on the left side of the camera, and communicating with the camera person is far easier when one is on the same side of the camera as its operator. With the boom operator's body to the left side of the boom or pole, he or she can follow the scene by turning his or her head left or see the operating side of the camera to the right. The camera person can give an index finger up in the air to tell the boom operator that the boom is too low, saying "move it up" nonverbally, or an index finger down to say it can come in lower (now that's a good camera person who is thinking holistically of picture and sound quality). A "slash" in the air with the fingers thrown horizontally means that the boom is at the right height.

A second reason for the orientation of the operator to the left side of the camera is that the boom operator can see the marks on the lens, particularly on those of a zoom lens, and know how wide the camera shot is. If the marks are not prominent enough, white camera tape on the zoom ring of the lens marked with arrows can give the boom operator information about how wide the lens is set, moment by moment. A good boom operator will also be cognizant of the discussion about what focal length is in use on a shot when fixed focal length (prime) lenses are in use, such as 21mm for a wide shot or 150mm for a very tight one. In some instances, a videotape output of the camera may be fed to a lightweight monitor that can be mounted on the boom or fishpole, but note that these rarely show the full viewfinder image for film cameras, only showing what it is in the video-recorded area.

The overhead fishpole generally requires for good performance that the operator be strong and able to hold the fishpole overhead for extended scenes. The handgrip at the end of the fishpole may be grasped firmly in the right hand, whereas a more open, "Y-shaped" left hand can permit the right hand to rotate the fishpole and thus effectively pan the microphone left and right. For

this to work, the microphone will typically be tilted to an angle of about 45o from the end of the fishpole. It is less desirable to hold the pole at an angle so that it is tilted up, although physically easier to do, because then the pole may intrude into the corner of the frame, particularly when anamorphic photography with its wider aspect ratio is in use. For extended scenes, in this position it is possible to gently lower the fishpole onto the top of your head to relieve some of the load on your arms.

All movement of the fishpole, however, must be done in such a manner as to prevent even the smallest noise, because direct conduction of the motion to the microphone may cause a strong acoustic output. For this reason, shock mounts are necessary, and special limp mic cable is used between the connector at the end of the boom and the microphone.

All in all, good boom operators have an incredibly athletic and intellectual job: they know the scene as well as anyone in it by learning the script pages the night before the shoot so they can anticipate the action, and they collaborate as much as anyone on the set for a good result.

Sometimes scene coverage calls for the use of two or, rarely, even more boom mics. In this case, the third person on the crew will be pressed into a boom operator role, or a set production assistant might be asked to do the same job. This would be the case, for instance, when there are two separate areas of action that are impractical to cover with a single boom.

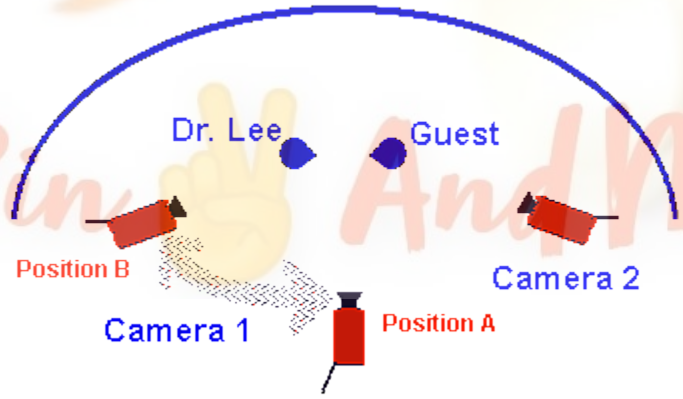
Topic 010

Camera man and Close up Shot

A camera operator or a camerawoman is a professional operator of a film or video camera. In filmmaking, the leading camera operator is usually called a cinematographer, while a camera operator in a video production may be known as a television camera operator, video camera operator, or videographer, depending on the context and technology involved, usually operating a professional video camera.

The camera operator is responsible for physically operating the camera and maintaining composition and camera angles throughout a given scene or shot. In narrative filmmaking, the camera operator will collaborate with the director, director of photography, actors and crew to make technical and creative decisions. In this setting, a camera operator is part of a film crew consisting of the director of photography and one or more camera assistants. In documentary filmmaking and news, the camera is often called on to film unfolding, unscripted events. In 2006, there were approximately 27,000 television, video, and motion picture camera operators employed in the United States.

Important camera operator skills include choreographing and framing shots, knowledge of and the ability to select appropriate camera lenses, and other equipment (dollies, camera cranes, etc.) to portray dramatic scenes. The principles of dramatic story telling and film editing fundamentals are important skills as well. The camera operator is required to communicate clearly and concisely on sets where time and film budget constraints are ever present.



Shooting Angles

In an interview the eyes and facial expressions communicate a great deal — often even more than the words the person is saying.

Profile shots (equivalent to shooting the close-ups from camera position A in this

case) often hide these important clues. A close-up of the guest from camera position B, as well as a close-up of Dr. Lee from the camera 2 position, provide much stronger shots.

These angles also offer more possibilities for shots. You have a strong close-up of the person talking, plus, if you zoom back slightly, an over-the-shoulder shot that can even be used to momentarily cover comments by the person whose back is toward the camera.

Close Up (CU)

In the *closeup shot*, a certain feature or part of the subject takes up most of the frame. A close up of a person usually means a close up of their face (unless specified otherwise).

Close-ups are obviously useful for showing detail and can also be used as a cut-in.

A close-up of a person emphasizes their emotional state. Whereas a mid-shot or wide-shot is more appropriate for delivering facts and general information, a close-up exaggerates facial expressions which convey emotion. The viewer is drawn into the subject's personal space and shares their feelings.

A variation is the chocker shot which is typically framed on the subject's face from above the eyebrows to below the mouth.

Topic 011

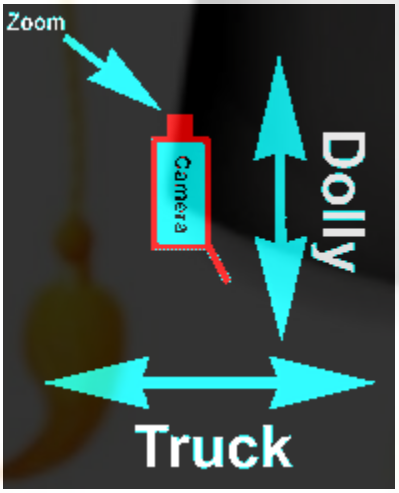
Contemporary angles & control gallery

Basic Camera Moves

*I*n Module 6, we introduced the basic camera moves. As you'll recall, we refer to moving (rolling) the entire camera toward or away from the subject as a dolly ("dolly in" for a close shot or "dolly back" for a wide-shot).

A lateral move (rolling the camera to the left or right on the pedestal) is trucking, as in "truck left" or "truck right."

And, finally, you'll recall that a zoom optically achieves somewhat the same effect as a dolly, but without moving the entire camera.



The photo on the right above shows a typical *rocker switch* (next to a camera lens) that controls the direction and speed of a zoom.

Studio Camera Mounts

▶ In the studio the entire camera assembly is mounted on a pedestal or dolly (shown here) so that the operator can smoothly roll it around on the floor.

The three wheels in the base of the pedestal can be turned using the steering ring.

The camera is directly attached to a pan head, which enables the pan and tilt (horizontal and vertical) camera movements to be adjusted.

Controls on the pan head allow the camera either to move freely, to be locked into position, or to offer controlled resistance to facilitate smooth pans and tilts.

Although the camera may weigh more than 100 pounds (45kg), internal counter-weights allow an operator to easily raise and lower the camera when the telescoping column in the center is unlocked.

The photo above shows some of the other key parts of a manually controlled studio camera pedestal. Most TV production facilities now use robotic cameras that are remotely controlled from the TV control room. (See below.)

A simpler camera support is the collapsible dolly shown on the left. This type of mount is used for remote productions and in some small studios.

Unlike the elaborate studio pedestal that can be smoothly rolled across a studio floor (even while the camera is on the air), the wheels on small dollies are only intended to move the camera from place to place between shots.

Robotic Camera Mounts

Camera operators have disappeared at many, if not most commercial production facilities (but not training facilities) -- replaced by remotely controlled, robotic camera systems. (Note photo.)

From the TV control room, technicians can adjust the pan, tilt, zoom and focus, and even remotely dolly and truck these cameras around the studio.

Although robotic cameras are not desirable for unpredictable or fast-moving subject matter, for programs such as newscasts and interviews (where operating cameras can get pretty boring anyway) they significantly reduce production expenses.

Camera Jibs

A device that's come into wide use in the last decade is the camera jib, essentially a long, highly maneuverable boom or crane-like device with a mounted camera at the end. You frequently see them in action swinging overhead at concerts and major events.

The operator and controls for the jib are shown above on the right. Note the two video monitors (one for camera output and one for program video) and the heavy weights that help balance the weight of the camera and crane.

A jib allows sweeping camera movements from ground level to nine meters (thirty feet) or more in the air. This is another concept we'll revisit in more detail later.

For more mobile camera work outside the studio, handheld camera supports allow significant mobility while still offering fairly steady camera shots.

The most famous of these is the Steadicam® (shown on the right), which is used with both film and video cameras.

The camera is mounted on a flexible arm that uses a series of spring balances to hold its position. A camera operator can walk, run, and even dash up a flight of stairs and still get a reasonably steady shot.

In addition to being costly, these units are heavy and require an experienced operator.

For smaller cameras, such as the one shown below, Steadicam JR® and similar units can provide smooth camera moves at a fraction of the cost and weight. The separate viewfinder (at the bottom of the picture) allows the unit to be held away from the body, where it won't be inadvertently bumped.

With a bit of practice an operator can walk in front of or behind a moving subject without undue camera movement.

Walking around with a full cup of coffee in your hand is good practice for using one of these. When you can go up and down stairs without spilling the coffee, you'll probably do a good job with one of the smaller Steadicam™-type units.

Remember, throughout these modules we're introducing you to equipment that you could encounter on a job or internship, and not the kind of equipment that's typical for schools and training facilities. *(See Footnote)*

Camera Tracks and "Copters"

For elaborate productions, installing camera tracks allows the camera to more smoothly follow talent and move through a scene. Although a camera operator can ride with the camera (as shown below), some cameras are remotely controlled.

Looking like a giant mosquito with a TV camera in its nose, the miniature (four-foot long) helicopter shown above can provide aerial views of various sporting events. A ground observer remotely controls the entire unit, and the unit's omnidirectional microwave relays the video to the production van.

*I*n 2013, the BBC (British Broadcasting Corporation) put the first camera drones into service for covering news. One of the smaller versions is shown below.

Since remotely-controlled, helicopter-type drones can move into places inaccessible by individuals or fixed-wing aircraft, they can provide coverage of events otherwise unattainable.

Plus, helicopter type drones can hover above news scenes for extended periods of time.

The video signal is relayed (live) to a receiver on the ground.

In the United States, as in some other counties, drone activities are subject to special restrictions.

Shot Types

There is a convention in the video, film and television industries which assigns names and guidelines to common types of shots, framing and picture composition. The list below briefly describes the most common shot types (click the images for more details).

Notes:

- The exact terminology varies between production environments but the basic principles are the same.
- Shots are usually described in relation to a particular subject. In most of the examples below, the subject is the boy.
- See below for more information and related tutorials.

EWS (Extreme Wide Shot)

The view is so far from the subject that he isn't even visible. Often used as an establishing shot.

VWS (Very Wide Shot)

The subject is visible (barely), but the emphasis is still on placing him in his environment.

WS (Wide Shot)

The subject takes up the full frame, or at least as much as comfortably possible. *AKA:* long shot, full shot.

MS (Mid Shot)

Shows some part of the subject in more detail while still giving an impression of the whole subject.

MCU (Medium Close Up)

Half way between a MS and a CU.

CU (Close Up)

A certain feature or part of the subject takes up the whole frame.

ECU (Extreme Close Up)

The ECU gets right in and shows extreme detail.

Variation: Choker

Cut-In

Shows some (other) part of the subject in detail.

CA (Cutaway)

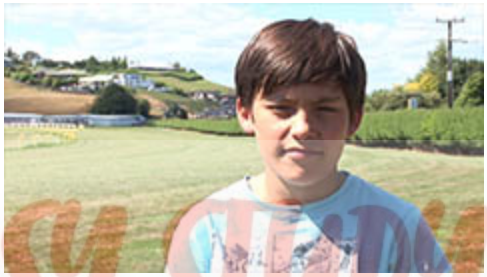
A shot of something other than the subject.

Two-Shot

A shot of two people, framed similarly to a mid shot.

(OSS) Over-the-Shoulder Shot

Looking from behind a person at the subject.



Noddy Shot

Usually refers to a shot of the interviewer listening and reacting to the subject.

Point-of-View Shot (POV)

Shows a view from the subject's perspective.

Weather Shot

The subject is the weather. Can be used for other purposes, e.g. background for graphics.

Topic 012

Cutting the subject & depth of field

Subject size is the size of the subject as it appears in the frame. The most common sizes are the *wide shot, medium shot,* and *close shot*. At the far ends of the spectrum are the *extreme* wide shot and *extreme* close shot. The main function of subject size is to convey story information by orienting the audience and emphasizing (or de-emphasizing) the subject.

The classic shot structure for a scene starts with a wide shot, cuts to medium shots, and climaxes with close shots. In other words, the subject size gets bigger as the action intensifies. This pattern can be monotonous when used for every scene. Nonetheless, it is basic to understanding how shots relate to action and can be used as a springboard for more creative scene designs. The following discussion elaborates on the different subject sizes.

Wide Shot

The wide shot is primarily used to establish the setting or location of a scene. Since objects appear small in the frame, it can also be used for *de-emphasis* and is ideal for conveying character isolation. This shot from *Vertigo* accomplishes both of these goals:

The wide shot has two drawbacks: it weakens the director's control over audience attention and lessens the impact of action. It should be avoided when important detail must be conveyed. Wide shots are also referred to as **establishing shots**.

Close Shot

The close shot is the exact opposite of the wide shot in that the subject is very large in the frame. Consequently, it is used for emphasis. When the subject is an actor, anything closer than mid-chest is considered a close shot, or *close-up*. Here, the actor's head dominates the composition. There are several types of actor close shots, as illustrated in this still from *The Godfather*:

Another variation is the **over the shoulder shot**, where an actor is seen in close-up over another actor's shoulder. This shot is often used in dialogue scenes as a bridge between a shot of two actors and a close-up:

The close shot is a powerful tool and should be used sparingly. When used too often, the audience becomes desensitized to it and its effectiveness is lost.

Medium Shot

As the name indicates, the medium shot falls between the close shot and the wide shot. When the subject is an actor, the upper body dominates the frame, usually from the thighs up. Movies are primarily constructed of medium shots, with wide shots and close shots used for orientation and emphasis, respectively.

Multiple Sizes

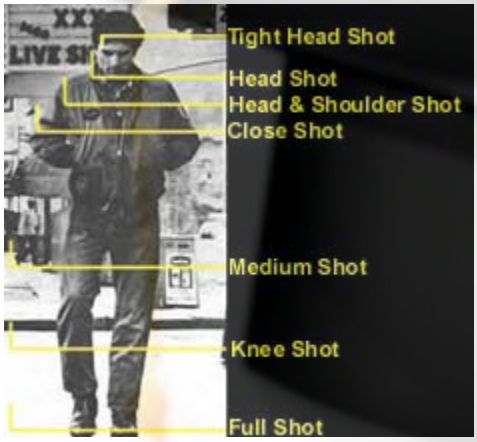
A composition can have multiple subject sizes. For example, one actor can be shown in close-up, while another is in full shot. This enables the audience to follow action in the foreground and the background simultaneously. The technique, called **deep focus**, was pioneered by Orson Welles in his landmark film *Citizen Kane*. The following shot shows actors in close, medium, and full shot:

Variable Size

The size of a subject can be varied during a shot by moving the camera and/or subject. For example, an actor in medium shot can move away from the camera into wide shot or toward the camera into close-up. This shot from *Shadow of a Doubt* moves from a medium shot to an extreme close shot:

Cutting Heights

There must be a clear understanding between director and cinematographer as to where frame lines cut off the actor's body. These designations are called **cutting heights**:



A rule in cutting heights is that frame lines should not cut through an actor's primary joints, since this has a strange look on screen. Primary joints include the neck, waist, knees, and ankles. The director should be aware that terminology may vary slightly from one cinematographer to the next, so definitions should be clearly established before shooting begins.

Technical Considerations

The preferred way to change subject size is to move the camera in relation to the subject, or vice versa. Subject size can also be varied by changing the lens focal length (i.e., magnification), however, this affects the way the image looks in terms of depth perspective and depth of field:

Depth Perspective - Depth perspective is the apparent distance of the foreground and background in relation to each other. Wide focal lengths expand the apparent distance, while long focal lengths compress it.

Variation in Depth Perspective
(note size of people in background)

Depth of Field - Depth of field is the amount of acceptable focus behind and in front of the subject. Short focal lenses tend to produce a wide depth of field, where everything on the set appears in focus ("deep focus"). Long focal lenses produce a shallow depth of field, where only the subject area is in focus.

Shallow Depth of Field

To avoid fluctuations in these variables from one shot to the next, the cinematographer chooses a focal length and shoots the entire scene with that lens. The camera is then moved in relation to the subject to create the desired subject

Depth of field is the range of distances that appears in focus. When you focus on an object, that object is sharply focused. But what about the object that's, say an inch behind it? Or a foot behind it? Depending on your camera settings and lens type, the depth of field may be just millimeters, or a few dozen feet.

A *shallow* depth of field means that only a small portion of the image is sharply focused, while the background (and often foreground) are unfocused. Portraits commonly use a shallow depth of field, because that unfocused quality eliminates anything distracting from the background and draws more attention to the subject.

A *narrow* depth of field means that a large portion of the image is sharply focused, even for objects that are a little ways from the focal point. Landscapes use a narrow depth of field to show more of the scene, and group portraits should use a narrow depth of field to prevent the back row from being out of focus.

Factors That Affect Depth of Field

So, the depth of field determines how much of the image is in focus. But how do you adjust the depth of field? There's actually more than one way to adjust the depth of field (plus another factor that's set when you choose which camera to shoot with).

Aperture

Aperture is the most well-known way to adjust depth of field, and also probably the easiest method. Remember aperture is the size of the opening in the lens—a larger opening lets in more light and vice versa. But aperture also plays a big role in the depth of field.

A wide aperture, or a low f-stop number, results in a shallow depth of field. Aperture settings like f1.8, and f2.8 let a lot of light into the image, but they also result in that unfocused background. At these wide apertures, an object needs to be very close to the original focus point in order to be sharp. That's why, in portrait photography, it's important to focus on the eyes—otherwise if the focus point is on the nose, the face may not be in focus with such a shallow depth of field.

A narrow aperture, or a high f-stop number, results in a narrow depth of field. (If you have a hard time remembering, just think narrow aperture = narrow depth of field.) Settings like f/8 and f/11 will leave much more of the image in focus. Objects don't have to be very close to the original focal point in order to remain sharp—so that back row in the group photo is much clearer at f/11 than at f/2.8. Landscapes tend to use very high f-numbers so that the almost the entire scene remains sharp.

Distance

Aperture is just one depth of field element that the photographer has control over—distance plays a role too. Aperture controls the distance from the subject that objects will remain sharp, but simply adjusting the distance of these objects can change how focused or unfocused they are.

The distance between the subject and the background plays a role. For example, even at f2.8, if you take a portrait with the subject leaning against a brick wall, most of the details in the brick will still be noticeable, even at such a wide aperture. Ask the subject to stand a few feet away from the wall, however, and the wall becomes out of focus.

But the distance between the camera and the subject has an effect as well. If you're not getting the out of focus background that you want and you can't lower your aperture any more, you can just move closer to your subject. The closer you are to your subject, the shallower your depth of field will be.

There's a lot of confusion surrounding the idea that the focal length of a lens also changes the depth of field. But the focal length of a lens doesn't change the depth of field any more than getting close to your subject does. If you take an image at 300mm, then that same composition at 35mm by moving closer to your subject, the depth of field will be the same. If you take an image standing in the same location at 35mm and 300mm, the 300mm photo will have the shallower depth of field—but that's from "getting closer" to the subject, not the actual focal length.

Sensor size

There's one more factor to depth of field, but it's not something the photographer can change between photos. The size of a camera's sensor plays a role.

Cameras with larger sensors have a shallower depth of field than cameras with smaller sensors, taken at the same aperture and distance when applied to the same composition. It's easier to get that unfocused background with a DSLR than with a point-and-shoot camera.

While you can't change your camera's sensor size like you can change the aperture, it's important to understand, particularly if you switch between a point-and-shoot and a DSLR.

Depth of Field: Tips and Pitfalls

Understanding depth of field is essential to mastering photography. But there's also a few tips (and a few pitfalls to put caution cones around) when it comes to depth of field.

- Don't make the depth of field too shallow when you need to focus quickly. When your focus point is off at f/1.8, it's really off. But if your focus point isn't quite right at f/8, you can still capture a sharp subject, thanks to the principals of depth of field. New photographers that need to focus quickly (i.e. for action photos) should use a narrower apperature (as the lighting allows) to ensure a sharp subject. As your confidence and focusing technique grows, then it's okay to use wide apertures for action.

- That unmarked button on your DSLR up close to the lens? That's a depth of field preview button (on most modern cameras anyways). Under normal shooting scenarios, the camera doesn't show you depth of field through the viewfinder. But pressing the depth of field button stops down the aperture, so you can see how sharp your background will be.

- Don't forget the foreground. Just as depth of field affects the background of an image, it affects the foreground too. If you'd like the foreground of your image to be sharp, use a narrow aperture. If you'd like the foreground to be out of focus, use a wide aperture. You can also adjust the distance between the subject and foreground, or the distance between the camera and the foreground, but that's not always practical.

- Double check to make sure that everything you want to be in focus, is in focus. If you're shooting a portrait, the eyes and face should be in focus, and you may want to increase that f-stop number a bit to get the hair in focus too.

Depth of field is an essential element to understand, both to ensure the entire subject is sharp and to choose when the background is soft. A portrait may require a shallow depth of field, while landscapes are often best with a narrow depth of field. But there's more than one way to adjust depth of field—aperture plays a role, but so does distance and sensor size. Experiment with depth of field to really grasp the concept—try shooting at different apertures, then try shooting at different distances. Before you know it, you'll have another tool to add to your bag of photography tricks.

Topic 013

Dialogue

- A conversation between two or more people.
- A discussion of positions or beliefs, especially between groups to resolve a disagreement.
- Conversation between characters in a drama or narrative.
- The lines or passages in a script that are intended to be spoken.
- A literary work written in the form of a conversation: the dialogues of Plato.
- Music A composition or passage for two or more parts, suggestive of conversational interplay.

Scriptwriting

Guidelines

*C*an a contractor build an office building without being able to understand the architect's blueprints?

Not likely.

In the somewhat the same way key production personnel must be able to understand scripts, especially the nuances in good dramatic scripts, before they can translate them into productions.

A comprehensive guide to scriptwriting is beyond the scope of this course. However, when you complete this module, you should understand the basic elements of scripts and even have a good start on writing one. (Remember: the most traveled route to producing is through writing.)

Broadcast Style

- Writers write video scripts in broadcast style. With allowance for sentence variety, video scripts use short, concise, direct sentences.

You should also be aware of ▲some common mistakes, such as the difference between *further* and *farther* and *less than* and *fewer than.*

- Of course, the English language is constantly changing.

Things which were deemed "wrong" at one point can eventually come into regular use and become accepted. (For example, in the preceding sentence "which" should actually be "that," but this is another case where things have been changing.)

"Close proximity" is becoming accepted, even though *proximity* means *close*, so it's actually redundant.

"There are less concerns about good grammar in advertising" should be "fewer concerns." *Fewer* relates to things you can count; *less* to things you can't.

The Use of *Whom*, Etc.

There are some situations, especially in broadcasting, where proper usage can sound stilted and off-putting.

One of these is with *whom.* Although we have detected a move to using the proper *whom* in publications, this doesn't seem to have been widely adopted in broadcasting.

In these modules we have stuck to *who* in all cases. However, in broadcasting *proper usage* is often dictated by *common usage*, so we reserve the right to change our minds.

Even so, we should point out that there are clear transgressions of proper grammar in broadcasting that aren't as forgivable. For example, in a recent Fox News report on a lost dog a reporter stated, "Her dog had ran away."

Many viewers are quick to pick up on such errors (and bring them to the attention of management). On a resume reel, this kind of thing should get anyone dropped from consideration.

- In writing your scripts, remember that the active voice is preferred over the inactive or passive

voice. Nouns and verbs are preferred over adjectives, and specific words over general ones.

 Facts must be taut, verbs strong and active; a script should crackle.

Avoid dependent clauses at the beginning of sentences. Attribution should come at the beginning of sentences ("According to the Surgeon General...") rather than at the end, which is common in newspaper writing.

In broadcast style, we want to know from the beginning who's doing the "saying."

▶ The classic reference on writing clarity and simplicity is a little 70-page book called *Elements of Style*. Even many seasoned journalists keep it handy.

A recent book on punctuation is Lynne Truss' and Bonnie Timmons' *Eats, Shoots & Leaves.* Who would believe an instructional book on a mundane subject like *punctuation* could make the *New York Times* best-seller list? But as the saying goes, "It's not what you say but how you say it" -- something that's especially important in writing scripts.

Correlate Audio and Video

▶ Keep in mind the basic guideline of correlating (relating) audio and video because viewers are accustomed to having what they *see* on the screen relate to what they *hear* -- generally in the form of dialogue or narration. (Note that the intentionally long and complex sentence you just read is not appropriate for broadcast style.)

If viewers see one thing and hear another, things get confusing.

Even though you want audio and video to relate, watch out for the "see Dick run" approach where the audio states the obvious. If you can clearly see what's happening on the screen, this can get downright annoying.

Although radio drama had to slip many things into the dialogue to tip off the listeners to what they couldn't see ("Emma, why are you staring out the window?"), this is hardly the case with TV, where you can see what's taking place.

The trick is to *write slightly off the pictures*. This means that, while you don't describe the pictures, your words aren't so far removed from what is being seen that you split viewer attention. This technique involves a delicate balancing act.

Information Overload

- With more than one hundred TV channels available to viewers in some areas and millions of pages of information available on the Internet, to name just two sources of information, one of today's biggest problems is information overload.

In TV production the goal is not just to unload information on viewers.

To be successful you must engage your audience and clearly communicate selected information in a manner that will both enlighten and possibly even entertain.

We can absorb only a limited amount of information at a time. The average viewer has preconceptions and internal and external distractions that get in the way.

If a script is packed with too many facts, or if the information is not clearly presented, the viewer will become confused, lost, and frustrated.

Lost vs. Bored

▶ Not only is the *amount* of information you communicate important, but also the *rate* at which it's presented.

In information-centered productions, give the viewer a chance to process each idea before moving on to the next.

If you move too rapidly, you'll lose your audience; too slowly, and you'll bore them.

The best approach in presenting crucial information in an instructional production is first to signal the viewer that something important is coming.

Next, present the information as simply and clearly as possible.

Then reinforce the key points by repeating them in a different way -- or with an illustration or two.

▶ Here are seven general rules to remember in writing for television. Some of these apply to instructional productions, some to dramatic productions, and some to both.

- Assume a conversational tone by using short sentences and an informal, approachable style.
- Engage your audience emotionally; make them care about both the people and content of your production.
- Provide adequate logical structure; let viewers know where you're going, which concepts are key, and when you're going to change the subject.

- After making an important point, expound on it; illustrate it.
- Don't try to pack too many facts into one program.
- Give your audience a chance to digest one concept before moving to another.
- Pace your presentation according to the ability of your target audience to grasp the concepts.

Topic 014

Dissolve mix

Crossfade / Mix / Dissolve

A gradual fade from one shot to the next is known as a crossfade, mix or dissolve.

Crossfades have a slower, more relaxed feel than a cut. They can be used in situations such as:

•Slowing the pace of a video

•Creating a mood, e.g. relaxation, thoughtfulness, etc.

•Showing a sequence of scenic shots

•Photo montages

•Conveying a sense of passing time or changing location

The speed of the crossfade transition can vary between a few frames (for relatively fast-paced content) to several seconds.

Slow or incomplete crossfades can also be used to create layered video effects.

Topic 015

Eye line

The 180 degree rule, camera position and eyeline

When you film a scene using separate shots, it's important that people understand where everything in the scene is. The **180 degree rule** will help you do this.

Shot 1: Long shot

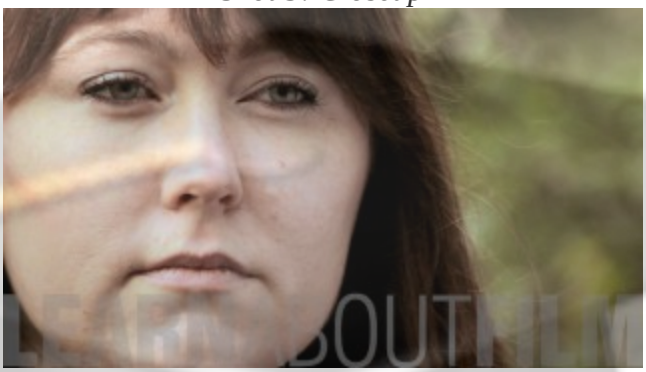
Imagine you're looking at a scene from the side. You can see the whole scene. If you look at one character, they are on the left hand side of the scene facing right. The other character is on the right side of the scene facing left.

You could just show your scene in long shot, but that would mean we couldn't see facial expressions, or details of what characters are doing, very well. It would also be quite boring because the camera position doesn't change.

Shot reverse shot and eyeline match

Shot 2: Mid shot

Shot 3: Closeup



Shot 4: Big closeup

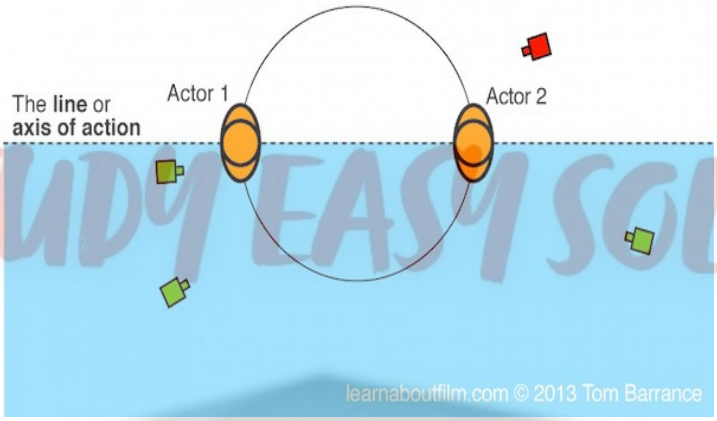
It's much more interesting if you get closer and use separate shots, such as mid shots and closeups. It's best if the camera moves round so it's almost full on to the characters. This way we can see their expressions and identify with their emotions.

Shooting like this – first in one direction, then in the other direction – is called **shot reverse shot**. The shots work together because the camera is still (just) on the same side of the characters as it was in the long shot. When the shots are edited together, we understand that they are looking at each other, because they are looking in the same direction as they were in Shot 1.

To make sure this works, we need to imagine a **line** between the two characters. This is called the **axis of action**.

Then we need to keep the camera on one side of that line. If you break the rule you have '**crossed the line**'. In the diagram below, the camera needs to stay in the blue shaded area. (The rule also applies if the character is looking at a thing rather than another person.)

This is called the 180 degree rule because the camera can't move more than 180 degrees (half a circle) around the characters.



Crossing the line

Shot 4 with a medium closeup that has 'crossed the line'

If the camera swaps over to the other side for one of the shots, the pictures won't work together. Instead of facing each other, the characters now look as if they are facing in the same direction.

Eyeline match

When you join shots together using shot reverse shot, you need to be careful about **eyeline match**. This means that the gaze of the character in one shot has to line up with the person or thing they're looking at in the next shot, as in Shots 3 and 4. To get this right, you should put both camera positions at a similar distance from the 'axis'. You should also frame the shots with **looking space** or **nose room** (more space in the direction they are looking). If one character

is higher than another, the taller character should be looking down and the smaller character should be looking up.

Changing the line

If you've got more than two characters, the same line may not work for everybody. You may have to change to a new line. There are several ways to do this without the audience getting confused:

- Include a shot where the camera itself **tracks** (moves sideways) or moves in an **arc** across the line
- Use a cutaway (a shot of something outside the main action)
- Cut to the **master shot** (a long shot or very long shot that shows the whole scene).

Interviews

The 180 degree rule works for interviews as well, cutting between interviewer and interviewee. But you can get problems with eyeline if you're filming up close and wide angle: the interviewee may seem to be looking well off to one side, which seems evasive. You can reduce this effect by keeping both camera positions really close to the axis, and moving back (using a standard or medium telephoto lens setting) to reduce the angle between the interviewee's eyeline and the camera.

Moving subjects

If a character is moving, the axis is the direction they are moving. If you cross the line they'll look as if they are going in a different direction.

Using Lines

The eighth guideline for visual composition is: *make use of lines.*

The boundaries of objects in a shot normally consist of lines: straight, curved, vertical, horizontal, and diagonal.

Our eyes tend to travel along these lines as they move from one part of the frame to another.

Knowing this, it becomes the job of the videographer to use these lines to lead the attention of viewers to the parts of the frame they wish to emphasize.

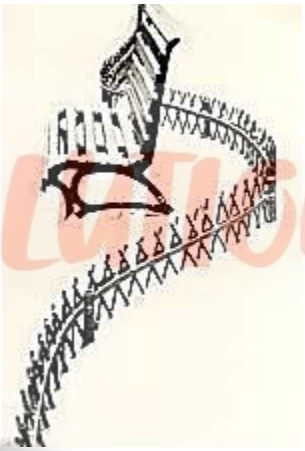
When used in this way, lines are referred to as leading lines, because they are selected or arranged to lead the viewer's eyes into the frame, and generally to the scene's center of interest.

In addition to moving our eyes around the frame, lines can suggest meaning in themselves.

Straight, vertical lines suggest dignity, strength, power, formality, height, and restriction.

Horizontal lines suggest stability and openness.

Diagonal lines can impart a dynamic and exciting look. Curved lines suggest grace, beauty, elegance, movement, and sensuality.



The S-curve is particularly effective in gracefully leading the eye to a center of interest. (Note the photos above and on the right.)

In contrast to curved lines, sharp jagged lines connote violence or destruction, and broken lines suggest discontinuity.

Frame Central Subject Matter

The ninth guideline for effective composition is: *frame the central subject matter*.

By putting objects at one or more edges of the picture, a shot can be framed.

Framing a scene holds attention within the shot and keeps viewer attention from wandering or being distracted from the center of interest.

To cite a common example, a leaning tree branch at the top of a scenic shot breaks up a bright sky and acts as a visual barrier or "stop point" for the top of the frame.

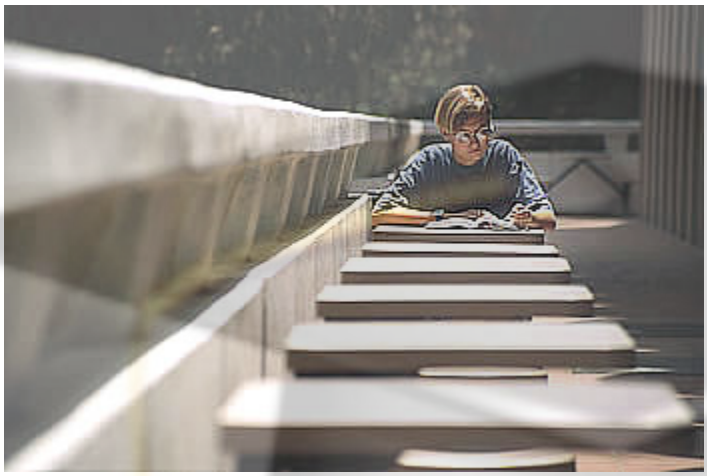
Note in the photo above how framing a shot with foreground objects adds depth and dimension.

Make Use of Visual Perspective

The tenth guideline is: *use the effect of visual perspective to enhance or support the scene's basic idea.*

As noted previously, camera positions and lens focal length can alter both the apparent perspective in a shot and the apparent distance between objects.

A minimal camera-to-subject distance coupled



with a short focal length lens (or a zoom lens at its widest position) exaggerates perspective.

In the case of this photo note that the parallel lines are wide apart in the foreground and converge on the center of interest. Selective focus is also used to good advantage.

By creatively controlling such things as lens focal lengths and camera distance, quite different impressions about a subject can be conveyed. You may recall that there were a number of examples