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Grammar of the Shot

Roy Thompson



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THE BOKER GROUP, 100 WATER STREET, NEW YORK, NY 10038

How do we see, what do we see?

There are two fundamentals to consider prior to any study of moving pictures. They are: What do we see? How do we see it?

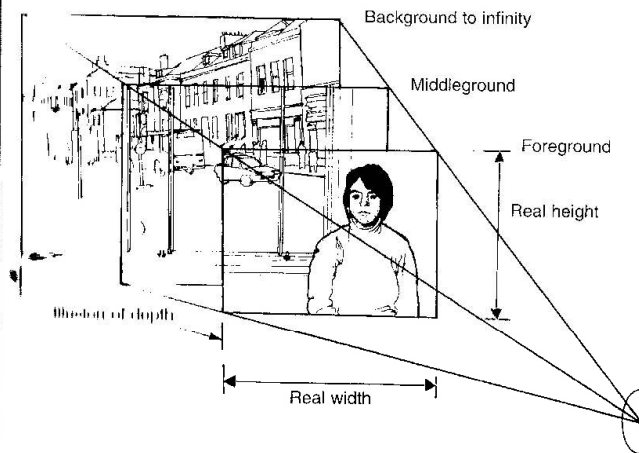
There is a big difference between what an audience thinks it sees and what it actually sees. Moving picture makers have used this difference very successfully and over the years have refined it almost to a science. Moving picture makers have also taught the audience how to understand their pictures and have developed a visual (film) language which the audience has come to accept.

The two questions, therefore, 'What do I see?' and 'How do I see it?' refer to film language and hardly ever to reality. 'Reality!', said the Director 'What's reality got to do with it? - I'm making a film!'

What do we see?

Moving pictures have *three* dimensions: width, height and depth. Imagine the three dimensions as a box. The first two of the dimensions are real but the third is created by illusion. Put another way, moving pictures have a frame around them, made up of width and height. Depth is the illusion because 'in reality' a film or TV image is only an electronic or optical projection which has no thickness. The story we see takes place within the box, in the created depth and within the edges of the frame. If the subject of the story leaves the frame then extra boxes are needed to continue to tell the story. Also, in some instances, more detail needs to be seen, so the audience must move closer into the box. Each of the boxes or scenes are joined together, so that the audience does not notice how the scene has changed, only that it has.

This single audience requirement, to see what has happened but not to notice technically how it has happened, becomes the fundamental aim of the cameraman.



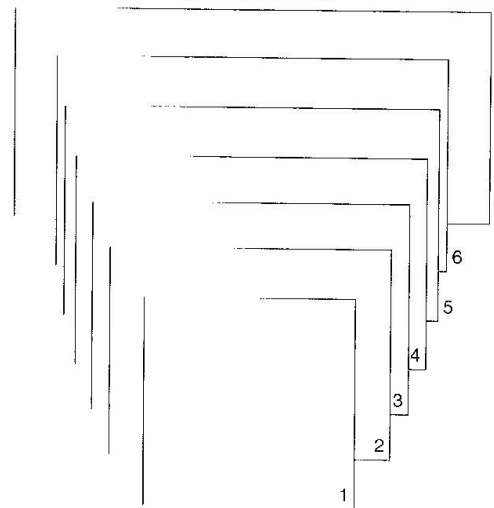
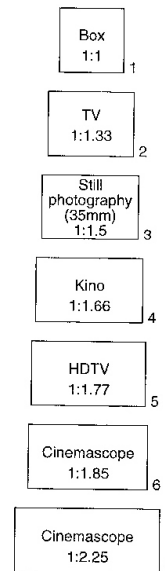
The first two dimensions of the box, width and height, have changed in size many times since the early history. A story shown on an early screen would look absurd on today's screens and vice versa. There is an international agreement for the width and height of the frame for both TV and Film but variations are still made. So the cameraman must first know which frame they are shooting within. Fortunately, even though the frame size changes the grammar does not. Some of the rules of framing may vary, but the overall methods of composing shots in three dimensions remain the same.

The aspect ratio

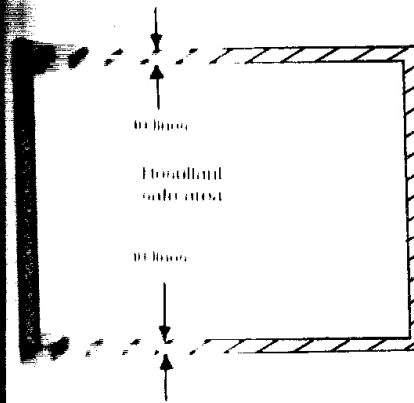
The proportion of the frame is expressed as a ratio of width to height. This ratio is called the aspect ratio. The third dimension, depth, is a progression from the furthest distance to the closest distance and is known as background, middles and foregrounds, abbreviated to Bgd., Mgd. and Fgd. respectively.

The aspect ratio is normally given as a number to one, where the height is taken as unity (1). Thus, the aspect ratio for TV is 1.33:1; for cinema 1.65:1; or for still photography is 1.50:1.

In more manageable units the aspect ratio for TV is expressed as 4:3. It is clear that a picture made in another aspect ratio does not fit the aspect ratio in which it is to be transmitted via television broadcasting. For example, a cinema film made 1.65:1 will lose 0.32 of its ratio, and consequently its picture, when shown on TV. In addition domestic television receivers, unlike precision studio monitors, are not always accurately aligned, so that a further area of picture will be lost when the picture is received 'at home'.

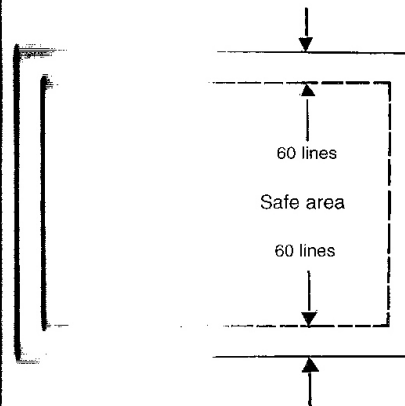


Most countries have agreements as to what area of the aspect ratio be said to be 'safe'. This safe area is expressed as a percentage of transmitted area. For television in America for example, the safe area for screen action is 90%. A further 10% is considered needed to be safe for text, namely titles. Consequently, a cameraman must be aware that only 90% of the screen is safe for home viewing and pictures must be composed with this in mind.



10% is regarded as being lost through misadjustment of domestic TV receivers.

Also known as domestic cut-off



A further 10% is lost to ensure that essential action and titles are within the final safe area.

How do we see?

The line

'The line', is a joining of any two separated objects, people or things, which may be seen or unseen, between which an action may happen. It is an abstract concept which exists in the imagination of both the audience and the cameraman and is used as a gauge to associate those points.

'The line' is needed to:

- Clarify our viewing and to eliminate visual complications.
- Simplify the story to be told.
- Determine from where we, the audience, are looking.

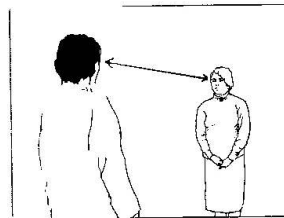
The imaginary line can exist between two people looking at each other, or between a person looking at an object, between a person moving to an object or a place, or even between two places. The line can even exist between an object leaning or moving in one direction to another, in the way that the wind can blow a field of corn so that the stalks lean together in a certain direction.

Without 'the line' even the simplest scene can become confusing to an audience.

Example

A thief is running down the street with a stolen bag. There are two witnesses. The first witness, person A, saw the action from their window. The other witness, person B, watching from the opposite side of the street, also saw the thief run off. Diagram 1 shows a plan of the scene.

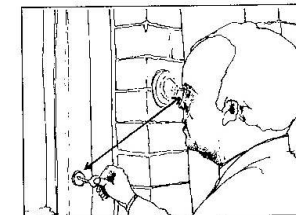
If the scene were to be made for pictures, and reconstructed directly from reality, then the two views would create confusion in the mind of the audience.



If two people look at each other it is an action. The line is between the two people.

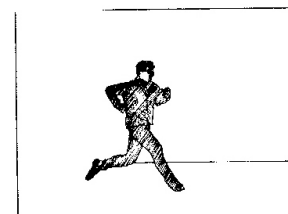
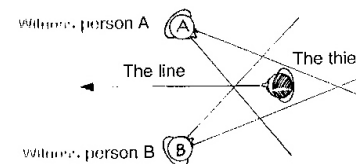


Or between a man walking to a door.



Even close to the door there may still be a line.

Diagram 1



As seen by person A



As seen by person B

The confusion

Person A says that the robber escaped to their right (i.e. screen right), but person B says that the robber escaped to their left (i.e. screen left). The question is not whether person A or person B is correct. Both are correct. It is the difference in the two views that causes the confusion.

The solution

It is the task of the cameraman to eliminate confusion and to help make the story as clear as possible. Consequently, audience watching conventions, how the audience sees the scene, decrees that the view of the thief escaping, is shown either from an 'idealised' position of both witnesses or by omitting one witness position altogether.

In doing this, the story of the thief running down the street would still be the same, the cameraman simply having used film language to reinvent the 'truth' to fit the audience's understanding of the situation.

Applying 'the line'

The line, in this case, is the line of action of the thief. It is the direction in which he runs away and lies on the path of the escape.

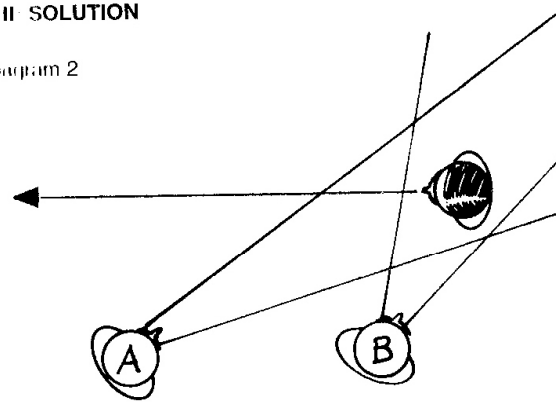
In Diagram 2, the scene has been converted to film language and both the witnesses are located on one side of 'the line' only. It is clear that both the witnesses will see the robber escaping screen left, thus maintaining clarity of story telling without significantly altering the credibility.

The story has become more believable and logical to the viewer.

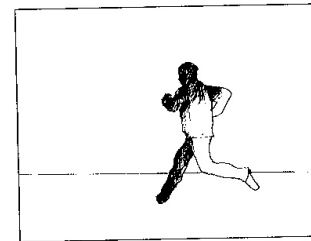
Thus 'the line', is critical as a guide for the audience. It helps to overcome the problem of credibility; it puts the audience in an idealised position so that they believe what they see. Otherwise 'reality' is not seen to be accurate.

THE SOLUTION

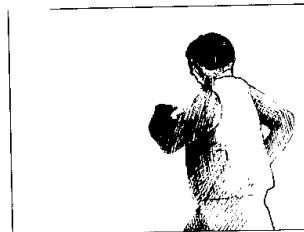
Diagram 2



As seen by person A



As seen by person B



Objective and subjective shooting

There are two ways of seeing for shooting. They are called objective shooting and subjective shooting. Most camerawork is objective shooting.

Objective shooting

An objective shot is one which is made with impartial judgement or assessment. It exists independently in the perceiver's mind and is usually not distorted by personal emotions or prejudices. In objective shooting the camera is literally observing the scene, and can do so from as many viewpoints as required to tell the story of what is happening.

Example

Person A is in conversation with person B (see diagram). The scene is shot from position C, with shots of person A, of person B and perhaps both A and B together. There is no actual third person in the scene, even though the camera is acting as one. The audience views the scene from the point of view of a magical invisible person (at position C), who can see and hear, but can never touch or interfere with whatever is happening.

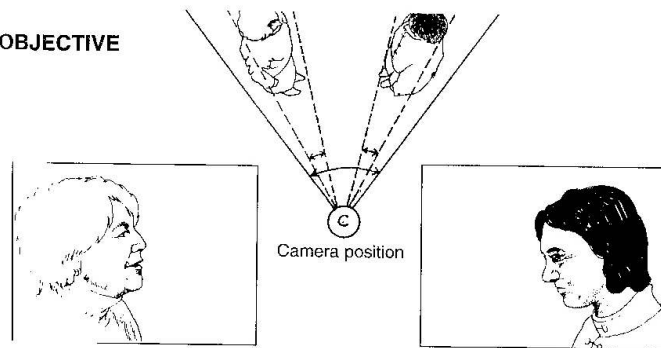
Subjective shooting

A subjective shot attempts to simulate views or feelings. It is not independent of the action, but attempts to be the action. In subjective shooting, the camera does not look at the scene, it is the scene.

Example

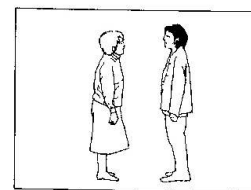
Person A is in conversation with person B. The camera takes the position of one of the persons and becomes them. In the diagram the camera has become person B, and the audience will see what person B would have seen. This would be a picture of person A, talking directly to the camera, because the camera is person B.

OBJECTIVE



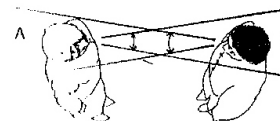
Person A as seen from position C

Person B as seen from position C



A and B as seen from position C

SUBJECTIVE



Person B as seen from person A



Person A as seen from person B

Because the camera is either person A or person B, there cannot be a true two shot in subjective shooting.

Objective and subjective mixed shooting

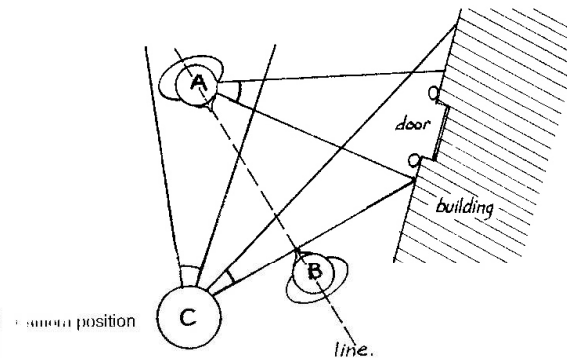
Often subjective and objective shots can be mixed. This is mostly in dramatic sequences but often occurs in a more simplified form when the audience (objective) needs to see what the subject sees (subjective).

Example

Person A is in conversation with person B and is shot objective in the normal way. Person A in the dialogue remarks on a building which is in his viewpoint (see diagram). If the audience has never previously seen the building, it will make the story clearer if the building is shown or seen from the point of view of person A. This is a subjective shot. It would edit easily into the objective scene.

Similar cases

Sometimes, seeing what the person is looking at could be either subjective or objective. This seems to be the case when that which is being looked at either has little perspective or is shaped in such a way that it looks similar from all viewpoints.



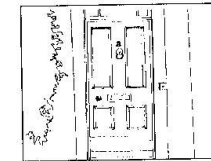
MIXED SHOOTING



Person A talking to B
from position C
(objective)



He turns to look at the
building
(objective)



What person A sees
shot from A
(subjective)



Camera position as B
shooting person A
(subjective)



Person A turns to look
at the building
(subjective)



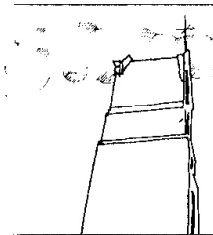
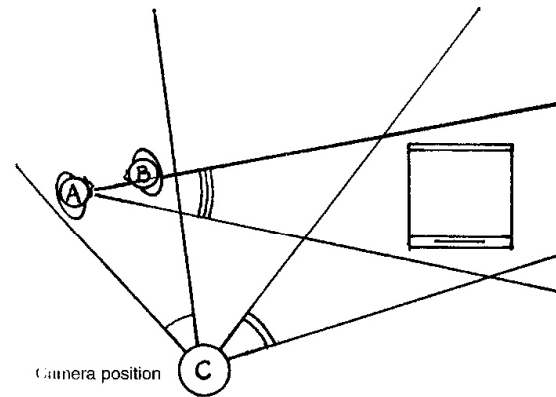
The building as seen
from position C
(objective)

Changing from objective to subjective is often more convincing for an audience than subjective to objective.

Example

Persons A and B in conversation. The dialogue concerns the top of a large tower, as seen by person A. Obviously, unless there was something on the tower which could only be seen from the point of view of person A, then there is little difference between a shot taken from the position of person A and one taken from position C.

The need to provide shots either from objective or subjective viewpoints is to fulfil the visual needs of the audience. Failure to produce subjective viewpoints when they are referred to in the story, is to deny the audience information. Whilst this is acceptable in drama (to deny information in order to reveal it later), it is not acceptable in documentary where omission of visual or aural information would eventually lead to audience frustration.



The tower as seen by A
(subjective)



The tower as seen from camera
position C
(objective)



Persons A and B as seen
from camera position C
(objective)

Elements of the shot

The shot

A shot is the basic division of a film or TV programme. In the same way as a play may be divided into scenes and acts, or an orchestral piece divided into parts and bars, a film or TV programme is divided up into scenes and shots. The shot is regarded as being the smallest possible unit when shooting.

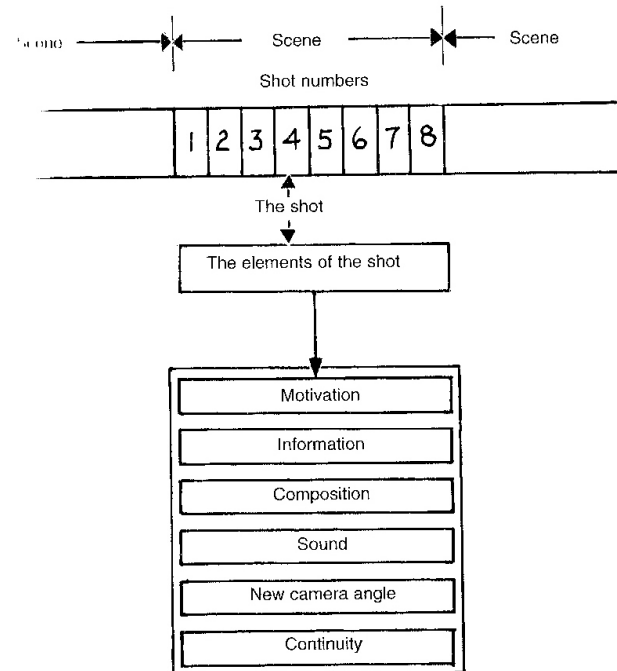
The elements of the shot

A shot should have six important elements 'built in' to its manufacture. These six elements are necessary if the shot is to edit to the next shot in the programme. Even if the order of the shots, which shot follows which, is not known, the elements should still be included. Failure to do this may cause problems in the next stage of production which is editing.

Editing is the adjustment of words, pictures and sounds. It is the process of joining shots and scenes together. It is also part of the process of story telling. In moving pictures, the editing process puts the story together in a meaningful and believable way. Consequently, anything that is shot must be editable. Failure to fulfil editing requirements when shooting encourages disbelief and dissatisfaction in the mind of the audience.

The six elements are:

1. Motivation.
2. Information.
3. Composition.
4. Sound.
5. Camera angle.
6. Continuity.



1 Motivation

Motivation is that part of the shot which gives the editor the reason, or motivation, to cut to another shot. Motivation can be in vision or in sound or combination of the two. In drama shooting, the motivation is constructed, invented, as part of the story, but in documentary shooting, the motivation is often more difficult to see and shoot. Nevertheless, it is still there if observation and patience are encouraged.

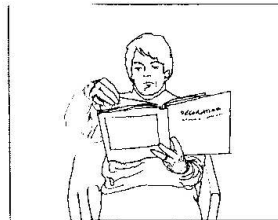
Example

'The woman is sitting in a chair, silently reading a book.'

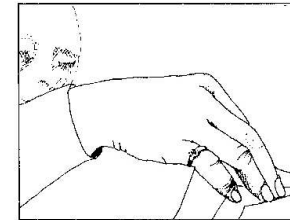
In documentary shooting this could be a single shot or a collection of shots making up a small scene. The motivation must be something the audience can either see or hear. Consequently, if the shot takes in all the room, the motivation would have to be large enough to see. In such cases sound motivation is often more believable. A cough by another person, off shot, may be just sufficient for the subject to move her head or eyes in the direction of the sound. If it is a number of shots, the motivations are many. There may be a small movement of the body:

- a tiny scratch;
- a small movement of the hand;
- a shifting of the body;
- the turning of a page;
- the rubbing of the chin;
- the hand to the ear;
- the sniff of the nose;
- the blink of the eye;
- the movement of the eye;
- the movement of the foot;
- the straightening of the dress.

It is rare that any normal person is so completely still that no movement can be seen.



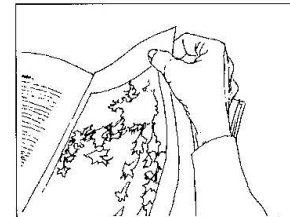
A small movement of the hand gives the motivation ...



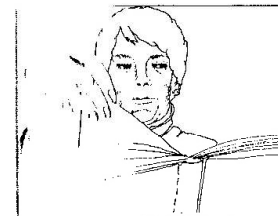
... to examine the hand more closely.



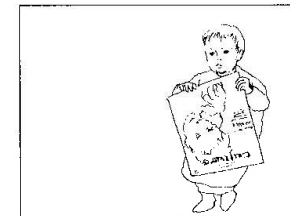
Turning the page allows the audience to ...



... to see what sort of book she is reading.

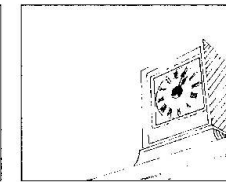


A definite movement of the eye ...



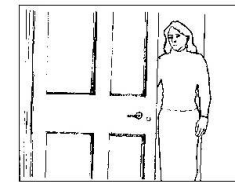
... gives the audience the chance to see what she is looking at.

In drama shooting, motivations can be 'built in' as required. The motivation will follow the story, and the question can be asked, 'Why is the woman waiting?' This can be answered by a small head or eye movement to a clock on the wall. This would give a motivation to the editor to cut the next shot, which would be a shot of the clock that the woman was looking at. Dramatic motivations need not be large. The implication of the motivation is often more meaningful. For example, say the woman is reading, but waiting also. The sound of a door opening would be sufficient for the woman to react to and would give ample motivation for the reason for the reaction which is the next shot, of a person opening the door.



The woman is waiting. A small movement of the eye ...

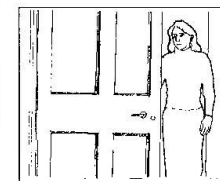
means the editor can cut to the clock ...



A woman is reading. The sound of the door opening makes her look up ...

and another person enters the room.

... automatically



The woman is reading, sound of the door

another enters,

then she looks up.

2 Information

Each shot should have new information for the audience, which should be additional to the last piece of information. The audience needs this additional information, both visual and aural, if the story to be told is to develop or if it is to create curiosity. Created curiosity should, in turn, be satisfied or withheld, as in drama. In vision, new information can often mean additional detail, or another way of looking at the same thing.

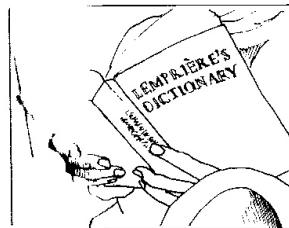
Example

'The woman is sitting in a chair, silently reading a book.'

By showing a series of successive pictures, each with new information, the audience's detailed knowledge of the scene increases.

- Who is the woman?
- How does she sit?
- How old is she?
- What does she look like?
- What is the book? Is it well used? Paperback or hardback?
- Where is the room?
- Is there a window?
- What is seen through it?
- What is heard through the window?
- What is heard in the room?
- What else is in the room?
- What time of day or night is it in the room.

The woman is not in isolation, but is surrounded by an environment, both in vision or in sound or in both. All these small seemingly insignificant trifles will contribute to the audience's understanding of the scene.



This gives information about the book she is reading.



Tells you how old she is – what her face looks like.



Tells you about what is outside the room.

3 Composition

A shot is composed. Composition is made up of:

- framing;
- the illusion of depth;
- the subjects or objects within the frame.

Items 2 (depth) and 3 (subjects or objects) can be enhanced by the use of colour.

Framing

A frame is a limit to a view. So framing, by limiting the view, isolates it and thereby draws attention to it (see aspect ratio). It is a significant factor in composition, and has, over the years, become standardised. Framing is initially concerned with two dimensions only.

Depth

On a two-dimensional screen, depth is obviously an illusion. It is made up of the following conventions (see overleaf also):

- convergence;
- relative size;
- density;
- juxtaposition;
- colour.

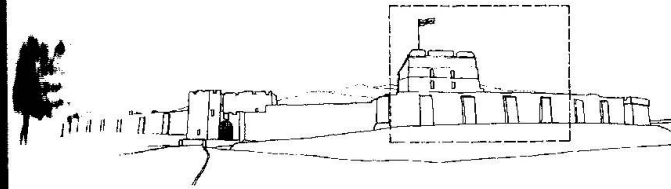
Subjects or objects

The placing and the movement of the subjects or objects within a frame are also based on convention. It comes from the history of painting and the history of standardisation of the film industry, mainly Hollywood.

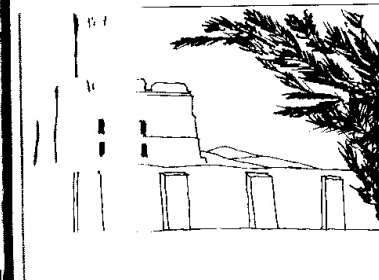
As audiences have learned to 'read' these conventions, it is necessary to be aware of them and apply them if the audience is to understand the picture for the message or story intended.

Colour

Colour can be the composition in itself or it can also be used to emphasise composition based on monochrome design.



Framing to isolate a view.



Arranging the framing to help create an illusion of depth.



And the placing of subject(s) within the frame.

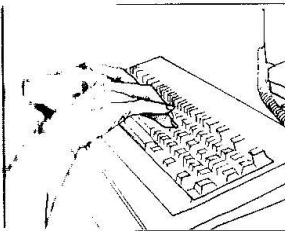
4 Sound

Sound differs from vision in one most important way. In vision, the eye chooses what they see. With sound, the ears have no choice. Also, sound is more immediate than vision, and, as it is more abstract, it produces a picture in the mind more suited to the individual person's expectation than does vision.

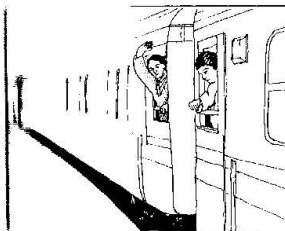
Sound is a primary experience. Like taste or smell, it is difficult to describe by words, or by vision or by using the other senses as a reference. Consequently, sound can exist on its own, but pictures hardly ever.

Experienced sound recordists and sound editors have a very important saying: 'You don't have to see what you hear, but you have to hear what you see!'

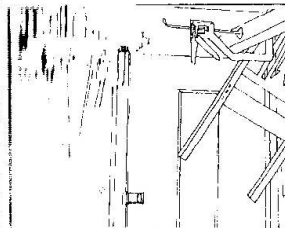
Whatever is seen on the screen, normally should also be heard on the screen. But something can be heard on the screen without it being seen. Nearly all situations seen will also have their own sound, even when the sound seems to be none.



A computer keyboard seen to be working must be *heard* to be working.



A train pulling out of a station must be *heard* as a train pulling out of a station. Extra station sounds can be heard but need not be seen.



But if a sound is heard that we don't recognise then eventually we have to show it. 'Thunk ... thunk ... thunk'



... thunk ... thunk ... thunk.
The picture finally explains the sound.

Example

'The woman is waiting.'

Say, for example the scene is set in a quiet house in a quiet street in a small town. The number of sounds would be extensive.

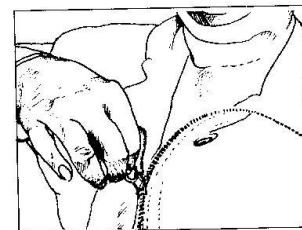
- The woman has a sound; her breathing or even her heartbeat.
- Her clothes have a sound. Silk makes a different sound from leather.
- Her skin has a sound. If she rubs her hands together, dry skin has a different sound to wet skin, and the way in which skin is rubbed makes different sounds.
- The chair in which she is sitting may make a sound.
- The room has its own sound. This sound is called atmosphere in a room, known as atmo or atmos.
- There will be a sound, however faint, outside the room. It may be of other types of atmos. It may be the sound of the street or of the traffic.
- There may be the sound of an individual item or thing in the room. A clock may have a particular tick. A cat can have an individual purr.

Whatever the vision there will be the appropriate sound.

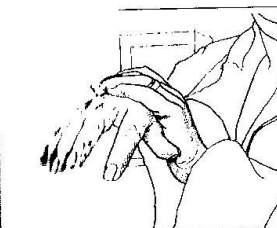
In cases where an unusual or unrecognisable sound is heard but not visually seen, then it is important for the audience to eventually see what is making the sound.



The woman has a sound ... perhaps the sound of breath.



Leather has a sound, especially the zip.



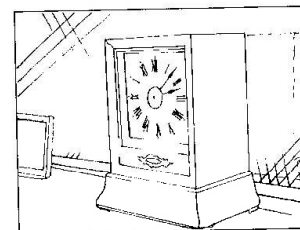
Hands rubbed



Atmosphere of the room.



What is outside the window has a sound.



A clock may have a certain tick sound.

5 Camera angle

The term camera angle describes the position from which we, the audience, are looking at the object or subject. Each new shot should have a new camera angle. There are three reasons for this:

1. To increase the possibility of new information.
2. To increase the possibility of shots editing together.
3. To copy more closely how people react to new subjects or objects.

When seeing somebody or something for the first time we tend to alter our viewpoints so that we more closely observe what it is we are looking at. This is similar with the selection of the camera angles. A number of factors affect this choice. These factors are:

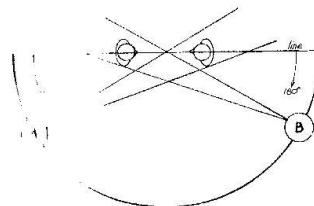
- the types of shot being used;
- the framing of the shot;
- the background in the frame;
- the illusion of depth in the shot;
- the colour and light in the shot;
- the sound in the shot.

Some subjects may be shot from almost any angle, whilst other subjects will best be seen from only a limited number of angles.

Camera angle is referred to in degrees (see diagram). The two rules written in the early days of film making are still valid for the novice cameraman of today.

The 180 degree rule

This rule effectively said that the action of the subject or subjects is the centre of a circle and that the diameter of that circle passes through the action and shooting is permitted within 180 degrees of one side of the circle or (see diagram).



180° rule

Two shots taken, one from position A and one from position B, i.e. from the same side of the circle, are permissible, because they can be edited together.

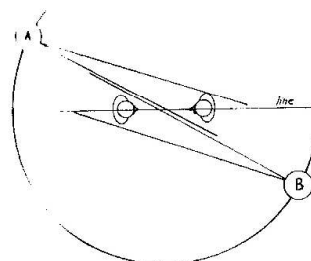


Shot taken from A



Shot taken from B

The result is that the two people are looking at each other.



If A is taken from one side of the circle, but B is taken from the opposite side of the circle (crossing the line), the result is different.



Shot taken from A



Shot taken from B

This result has a different meaning – that two people are looking at a third (not seen).

The 30 degree rule

When taking shots of the action within the 180 degree rule, the camera should be placed never less than 30 degrees from the last position of camera (see diagram).

Whilst the 180 degree and the 30 degree rules are still fundamental correct today, it is understood that the position of the half-circle can change within a scene and consequently, there are ways to shoot from both sides of the circle. The 30 degree rule is still basic practice, even though angle can sometimes be smaller.

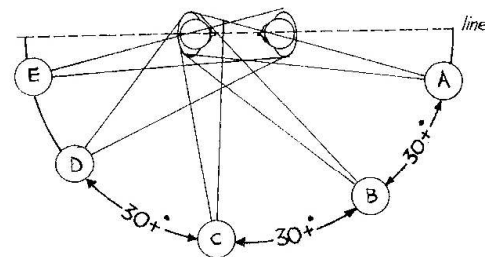
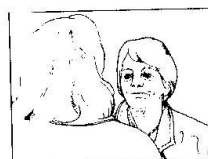


Figure 1



From A



From D



From B



From C

Shots taken less than 30° from each other should be significantly different from each other if they are to give any additional information to the audience. For example, A is significantly different from E but not from B. B is not that different from C but it is from D.

6 Continuity

Continuity is maintaining the established flow of visual and aural production detail between takes, shots and scenes. There are five main parts to continuity:

1. Content continuity.
2. Movement continuity.
3. Position continuity.
4. Sound continuity.
5. Dialogue continuity.

Content continuity

Content continuity covers all visual elements concerned with the scene. These range from people and properties to dress and make-up.

Example

'The woman is sitting in a chair, silently reading a book.'

When the scene is shot with a number of shots, and has to appear continuous in time, then the visual elements in the shot remain the same. The same book, the same clothes and hair style. The same chair and ornaments.

Movement continuity

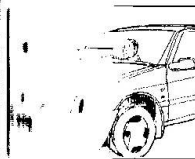
The majority of shots contain movement of one form or another, even though it may be small. But a small movement becomes a big movement close up; consequently, being aware of the movement and its direction is critical, because movements may have to be repeated in another shot within that scene. Movement must be carefully observed in order that it matches that in the previous shot.

Position continuity

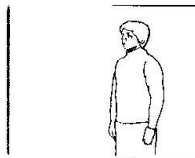
Position continuity is the position of the subject or object within the screen. If a subject is positioned at the right-hand side of the screen in the first shot, then they must be on the same side in the following shot, and cannot be on the left-hand side.



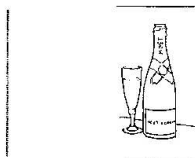
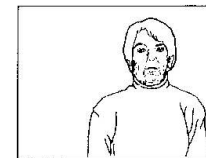
When the subject is the same, then the continuity of the arm movement must be similar in both shots.



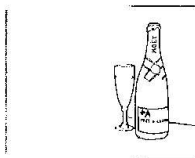
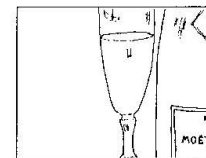
The direction of the movement must also be similar.



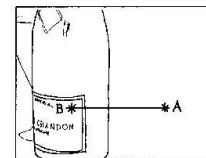
The position of the subject in the screen must be similar.



Even when there is no movement of an object, position continuity must be similar.



If the continuity of position is reversed the eye will JUMP between the two shots from A to B.



If two shots, when edited together, are to appear continuous then position continuity must be maintained; otherwise the eyes of the audience will jump from one side of the screen to the other. Position continuity also applies to objects.

Sound continuity

The continuity of sound is also critical. Not only in relevance to foreground or background position but in its perspective. Sound continuity holds the audience's attention. The audience expects that the ticking of a clock seen on a mantelpiece which is distinctly heard in one shot, will be heard in the following shot. If it does not, then it means that the clock has stopped, and dramatically this can have another meaning. There is a balance between foreground dialogue and background sound, but even though the foreground dialogue or sound may be new in a following shot, the background sound must remain.

Sound continuity applies even when the sound is heard but not seen. The audience will still require the same sound in the following or subsequent shots to match that in the first one. The only exceptions to this fundamental requirement are when the following occur.

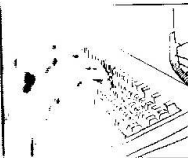
- The sound is heard to change and there is a shot in vision to show where the change has happened. For example, changing from a town location to a country location.
- The change in sound is clear in its meaning. For example, the sound of an aircraft landing changes to the sound of aircraft tyres screeching on the airport runway.

Change of continuity

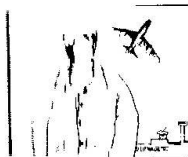
All the types of continuity are common in one aspect, in that they cannot change unless:

- it is seen to change on screen as part of the 'story'; or
- there is an apparent time interval between two shots, during which continuity might have changed.

Other than for these two exceptions, continuity must be maintained in each shot.



The sound of a computer keyboard will continue from one shot into the next shot.



If an aircraft is heard and seen in the first shot then it will still be heard in the next shot even though it can't be seen.



Mixed subject reference positions

When there are a number of people in the frame, they can also be shot with mixed reference positions. This was very common in the history of painting and in early photography. Mixed subject reference positions develop 'eye lines' or 'eye directions' within the group, aided composition and often made the 'story' within the picture. The positioning of people within a frame is a skill which must be learnt; without it, composition of groups can be mundane and unconvincing.

Headroom

Headroom is the distance between the top of the subject's head and the top edge of the frame. It is a fixed amount for a certain size of shot. As a shot changes, according to how close the subject is in the frame, then the headroom changes, until it disappears altogether in closer shots. Shots made for film have a different headroom to those made for TV.

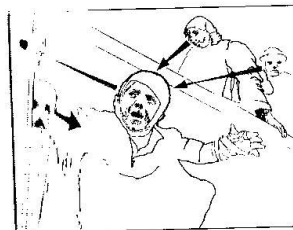
In addition, domestic TV receivers reduce the total amount of the picture area by 5%, so that the correct headroom in a camera viewfinder may appear incorrect at home. This loss of area is called 'domestic cut-off'; the cameraman must allow a little more headroom to compensate for this.

Noseroom

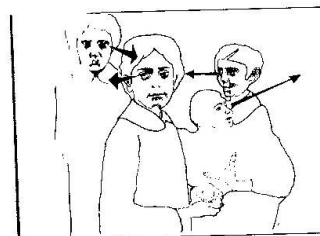
Noseroom, often called 'looking room', is the distance between the subject's head and the edge of the frame to which the person is looking. Noseroom can be either right or left frame. The use of this space is not only psychological, it is also an optical requirement: ready the eye to move to another view. Noseroom, like headroom, varies according to the size of the shot.

Footroom

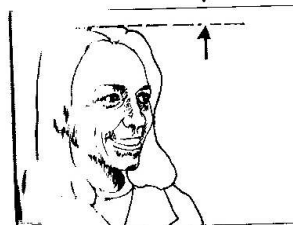
This is the space, on some of the wider shots, between the feet of the subject and the lower edge of the frame.



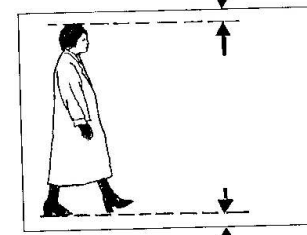
Mixed subject reference positions.



Headroom



Headroom

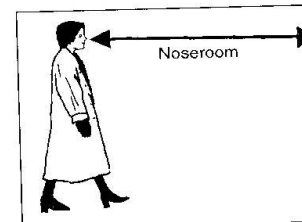


Headroom on a shot of a complete person – there would also be room at the feet (foot room).

Noseroom



Noseroom



Simple shots

There are nine simple shots of the single person, of which seven are very common, but there are over fifty variations of them. All of the simple shots refer to looking at people from the height of the eyes of the person being observed. The simple shots are known as:

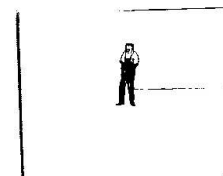
- extreme long shot,
- very long shot,
- long shot,
- medium long shot,
- medium shot,
- medium close-up,
- close-up,
- big close-up,
- extreme close-up.

Abbreviations

It is normal for cameramen to abbreviate the names of shots. Also abbreviated is the position from where they shoot. High angle (H/A) is shot from higher than the subject's eyes. Low angle (L/A) is shot from below the subject's eyes. Consequently, a medium close-up shot from a high angle of a man called Theodore would be abbreviated to H/A MCU Theo.



Extreme long shot: XLS/ELS



Very long shot: VLS



Long shot: LS



Medium long shot: MLS



Medium shot: MS



Medium close-up: MCU



Close-up: CU



Big close-up: BCU



Extreme close-up: XCU/ECU

Overlapping action and shooting ratio

Overlapping action

An 'action', as a noun, is the name given to any subject(s) movement or activity. As a verb, it is used to begin the movement or activity of the subject(s). Overlapping action refers to the noun.

For an editor to cut two shots together with continuity (an action continuity edit), both shots must have sufficient action so that the editing point is available on both. To do this the cameraman shoots parts of the action at the beginning and at the end of the shot so that the editor can more accurately join the shots together. It will then appear as if none of the complete action is lost. These extra parts of the action are called 'overlapping action'.

The amount of overlapping action varies according to the shot and the action. Some actions are short and require only a second, some require many seconds. Generally, the closer the shot the less overlapping action is required, and the wider, the more.

Example

A scene calls for a standing subject to leave a room through a door to a corridor outside the room. Shooting with a single camera, the scene has to be divided into two shots: one, the subject leaving the room; and two, the subject entering and walking down the corridor.

If the action is to appear natural, then the appearance of the subject going through the door, from one space to another, should not be interrupted by looking as if it were two different shots, or the illusion is lost. Consequently, the action is done twice; once seen from the inside and once seen from the corridor.

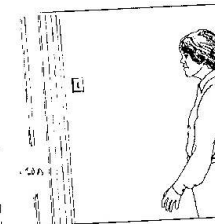
The action from the inside should be up to and including the closing of the door as the subject has passed through it. The action from the outside must be from the closed door with the subject on the inside, who then opens the door, walks through it, and exits down the corridor.

The overlapping action is that which involves the door, because it is within that part that the editor will attempt to find the continuity, identical in both shots, within which will be at least one frame where the cut can be made.

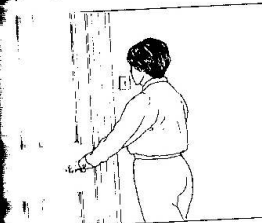
The reasons for the overlapping action are:

1. To allow maximum choice for the editor to select the cutting point.
2. To allow time for the subject to reproduce the action more fluently.

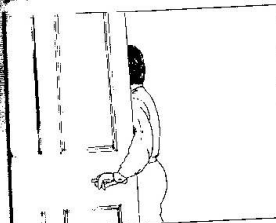
SHOT 1
Inside the room



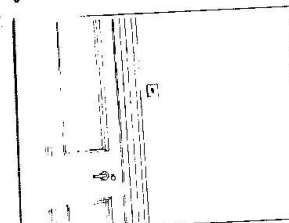
Subject approaches the door.



Subject opens the door

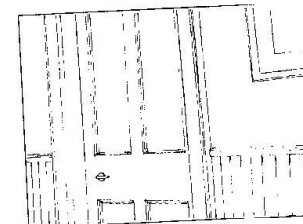


Subject walks through the door



Subject closes the door.

SHOT 2
Outside, in the corridor



Begin with the closed door.



Subject (on the inside) opens the door



Subject comes through the door



Subject closes the door and exits screen.

Problems in shooting overlapping action

1. Matching the speed of action.
2. Continuity.
3. Overshooting.

1. Matching the speed of action

The apparent speed of an action depends on the framing of the shot. Although the actual speed of the action by the subject is exactly the same, it will appear different and may give a problem when cutting the shot to another. For example, on a long shot the action of a person will appear slightly slower than the same action on, say, a close-up. This is because the movement seen on the screen on a long shot is less than the movement seen on a close-up of the same action.

Example

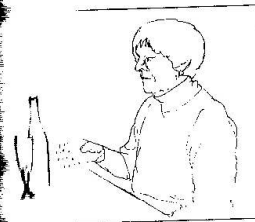
A subject picks up a glass from a table and drinks from it. If a close-up of the glass and hand, seen picking it up, is needed, then overlapping action will have to be shot. The shot would start with the hand out of the frame, the hand comes into frame and picks up the glass, then the hand and glass exit frame.

On examination it will be seen that the distance of the movement of the hand on the long shot is significantly more than that on the close-up. Even as the action is the same, it will appear to the audience that the hand has moved faster on the close-up.

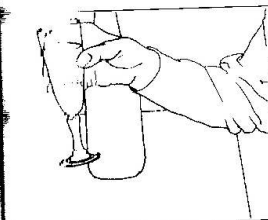
This might be overcome if a third shot, drinking from the glass, were used. Then, overlapping action would require the glass to be picked up again, even though the shot might be only shooting a medium close-up of the subject.

Solution

Besides taking the close-up at normal action speed, two other takes should be made of a slightly slower action. The editor can then select the one which seems to match the long shot better.



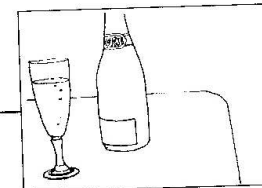
Long shot of glass and drinks.



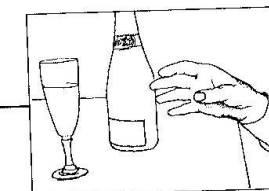
Close up of glass and hand.



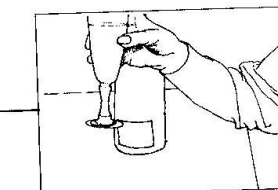
Better to use a third shot to finish the sequence.



Shot begins with hand out of frame.



Shot slightly slower with hand action.



Hand exits frame.

2 Continuity

Continuity is the exact matching of the detail of subjects, objects and situations from take to take. In overlapping action this also includes light and sound.

Most problems are concerned with people rather than objects. In shooting documentary, especially, it is unrealistic to ask a guest to repeat an action for overlapping in exactly the same way as the previous take. This is because the person, the subject, is more likely to carry out their actions instinctively. Therefore, the cameraman in documentary has to be aware of this and make constant continuity checks.

3 Overshooting

Overshooting in the context of overlapping action is taking too much footage which is unused.

When shooting overlapping action there is often a tendency to repeat all the action take by take, to ensure that maximum choice exists in the editing process. This, however, is not good practice unless money and time are not considerations. There are many ways of reducing footage when shooting overlapping action. The main one is to know within which boundaries the edit will take place. This requires an element of planning, knowing which shots should be taken and why. A story-board is an ideal solution,

Shooting ratio

Shooting ratio is the relationship of footage shot to that used, and is expressed as a ratio where footage used is taken as unity. Thus, shooting 10:1 means that ten times the footage that was actually needed was shot. Shooting ratio is used by the producer as a formula to help calculate the cost of a production.

There is no standard figure, no benchmark, which a beginner can apply; it depends on the type of shoot. For example, shooting wildlife is very expensive in footage; 60:1 is not uncommon. On the other hand, scenes with predictable machine movement can be as low as 5:1.

Shooting ratio can also be expressed in time. For example, if an interview is to last, when edited, 5 minutes in length, and one 20 minute cassette is used, then the ratio is 4:1.

Even if the shot is managed in one take, it does not mean that the footage shot is the footage used. This is because the entire take is made up of pieces of footage which are important to the process of manufacture, of which only one part is the action itself. Thus the minimum ratio for even a perfect take is 2:1.

In drama shooting, 2:1 is not a reasonable possibility. The ratio usually depends on the complexity of the shot. Simple shots have a smaller ratio, while complex and developing shots have a larger one.

Shooting drama on magnetic tape at a higher ratio has other implications. If the finished programme is to last 60 minutes, and the ratio is 20:1, then the amount of tape used is some 20 hours. This is a considerable amount of footage to process and results in added expenditure in the post-production stage.

It is, therefore, a question of experience and negotiation as to the ratio the novice cameraman can expect.

Frame the subject and object on opposite sides of the frame when shooting for a directional edit

Reason

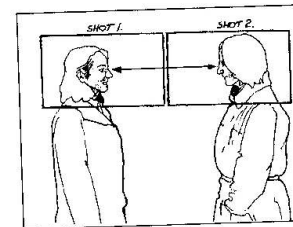
If two people are looking at each other or a person is looking at something they leave their own natural space between themselves and the object or subject. When this natural space is divided into two shots, one of the person who is looking and the other of that which is being looked at, then the natural space is equally divided into two parts, one part per shot, the space being composed in the opposite side of the frame to the other shot.

Solutions

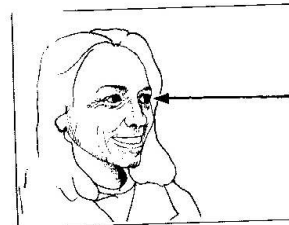
Say a woman is looking at a building. There will be a natural place where she will stand in order to see the building or part of it. This is the position she feels comfortable with. If the picture is in two shots, then if the woman is shot screen left, the building will be shot screen right. This simulates, to the audience, that if the two pictures were joined together, the space is in between the woman and the building. If the two spaces are on the same side of the screen then, when edited together, the result is disturbing and unconvincing, mainly because it looks as if the figure is fighting the frame.

Exceptions

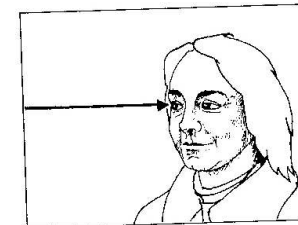
When shooting for directional edits, there are no exceptions to this practice.



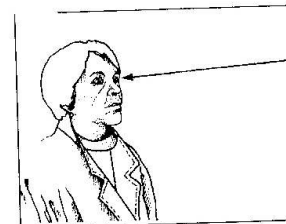
This is a natural space.



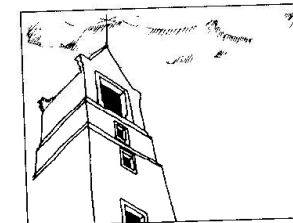
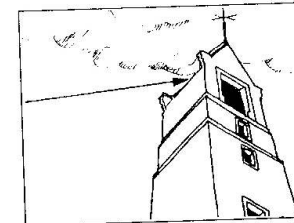
Shot 1



Shot 2



It is the same for a building.



If the natural looking space is removed the sequence is not so convincing.

When shooting a dialogue, check the matching shot first

Reason

The matching shot, sometimes called the reverse angle shot, is the shot which is usually made after the master shot and is the mirror opposite. Often the temptation to shoot an unplanned master shot has the result that the position and camera angle for the matching shot is forgotten at the time. The result is that, when the matching shot is called for:

- (a) it will not fit into the environment; or
- (b) there are major spurious objects in the background; or
- (c) there is an eye line problem between the two subjects; or
- (d) there are depth of field problems.

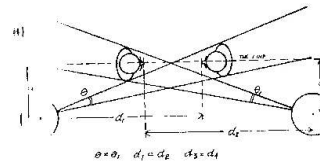
Solutions

The fundamental reason for the mistakes happening is that the location was not checked correctly before the master shot was taken. If there is likely to be a problem, a little plan should be drawn up to help in deciding where the master and the matching shots should be.

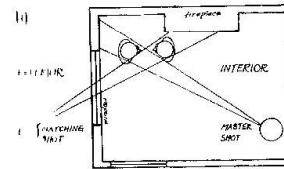
It might be discovered at this stage that there is physically no space to shoot a matching shot, and consequently the master shot can be changed into something more suited to the environment.

Exceptions

The exceptions to this practice are mainly in news work, where the speed of the shooting is often the cause for not being able to carry out matching shots.

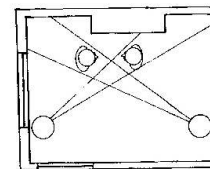


A matching shot is that which matches another in camera angle, lens angle and distance from the subject.



In this example, the master shot is possible, but there is no space to shoot the matching interior shot, without using a wide angle which would give a different depth of field. The two shots would not edit smoothly, but the backgrounds would jump.

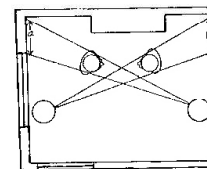
The exterior matching shot would be possible but should only be used at the beginning or end of the sequence if the action was moving from the exterior into the interior or from the interior into the exterior.



This would be better, but the corner of the room (unless the depth of field was small) would be evident.



When these two shots are edited together the vertical line representing the corner of the room would jump.



Background 'a' is similar to background 'b'

This would be an improvement, but now the light from the window would begin to have a predominant effect on the shot.

When shooting matching shots of two people of differing heights, shoot dissimilar camera heights

Reason

The purpose is to overcome the dominant and submissive effects caused by apparently shooting low and high angles. If the camera takes the eyeline of a taller person, and holds the same camera height for the shorter person, then the effect is a shot which makes the shorter person look submissive. Also, in using the eyeline of the shorter person and using this camera height to shoot the taller person, the taller person is made to look even more dominant. It is important, where visual balance between two people is required, that camera heights are adjusted accordingly.

Solution

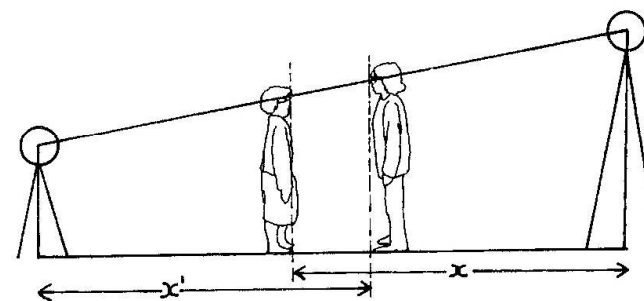
To gauge the camera heights required, the shot of the taller person (see diagram) looking slightly lower than eye level should match with the other shot of the shorter person looking slightly upwards. The method used is to project an imaginary line across the environment which also follows the eyeline between the two people. As one of the requirements of the matching shot is to have the distance from subject to camera the same in both shots, then the required camera height for the matching shot will lie on the projected line.

In some situations where the height difference is significant, this solution becomes impractical and the exceptions apply.

Exceptions

Where the height variation is such that differing camera heights cannot apply, other alternatives can be used.

1. Sit both subjects on chairs and use cushions to adjust the reduced difference in heights. Differing camera heights may still have to be used.
2. Raise the height of the shorter subject by using a box or rostra. Obviously, the box should not be shown on shot unless it is part of the story.
3. Place the taller of the subjects on a lower ground level.



To obtain matching shots with subjects of differing heights, project the incline as shown. The shots will match when x' and x are similar, the lens angles are similar and the height of the camera lies on the incline. The shot is then taken down (or up) the incline.

In documentary work, each shot often has a corresponding re-action shot

Nearly all action is a reaction to something else. It is rare in documentary shooting for an action by a subject to be a completely isolated event. Unlike science, the reaction need not be equal and opposite, but it will be corresponding to the action.

Reason

Though the practice is relatively easy to understand with people, it is also true with animals and can be true with inanimate objects. It is so because the audience want it to be so. It is natural curiosity and part of the anthropology of mankind. When man, the hunter, saw or heard a movement of the grass, the reaction was: stay still, look, listen, wait. It would be one of two things, food or danger. Even though human responses have become more camouflaged today, people still respond in a similar way.

Solutions

Observe the subject and shoot each shot keeping in mind the reaction to the shot.

Example

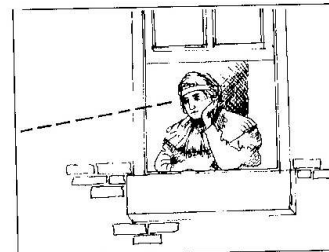
If a man, walking down the street, suddenly looks up, he is doing so for a reason, even if he looks up without knowing. His attention is attracted in the same way as that of 'man the hunter'. Consequently, two shots are required, one of the man walking down the street, and one of that thing or activity which attracted his attention. The action is the man looking, the reaction is that which caused it. These two shots are interchangeable in the next stage of production; the first can come second and the second, the reaction, can come first.

Exceptions

The audience almost know what they want to see before they see it. Making use of this characteristic is common in story telling and has many possibilities in drama. By not showing the reaction to an action, information can be suspended. It may even be denied completely or only revealed later, which is itself a typical device in suspense movies.



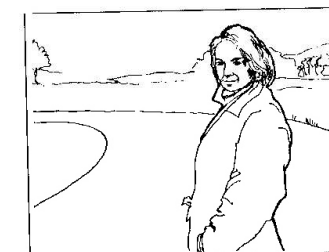
The action – the man is walking down the street – he looks up.



The re-action – this is what he is looking at.



Often the action and re-action are interchangeable. This shot could be the action.



But this shot could also be the action and the man the re-action.

Shoot matched shots rather than unmatched shots

Reason

A matched shot, also known as a reverse angle shot, is a shot taken from the opposite point of view to the preceding one. This working practice refers mainly to shooting dialogue between two people only. The fundamental reason is to present shots to the editor which when edited, centre the audience's attention on the action or dialogue, without any variation in background or framing.

A matched shot must be similar, if not the same, as its opposite shot in three ways:

1. It should have the same camera angle.
2. It should have the same distance from the subject.
3. It should have the same lens angle.

Assuming two people are talking to each other, then the same camera angle will give the same view of each of the subjects. The same distance from the subjects with the same lens angle will give the same framing and the same depth of field in both the shots.

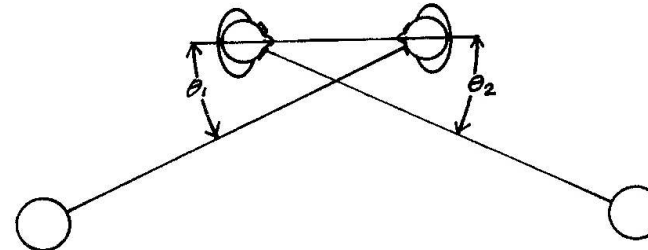
Even though the backgrounds in one shot may be different from those of the other, providing the depth of field is the same, then the definition of the backgrounds will be similar.

Exceptions

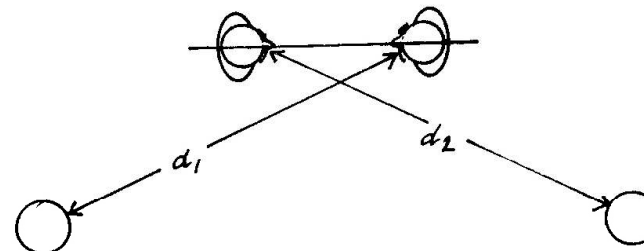
An exception is when there is physically not enough space to shoot a matching shot. In this case it would be wiser, in the case of an interview, either to choose somewhere larger or to change the method of the interview to fit the camera and framing available.

It is also possible to have a reverse angle shot which is not matching, but this generally refers to framing in drama, rather than in interviews.

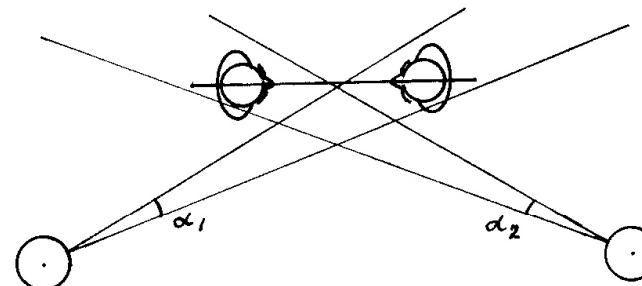
A matched shot has three requirements.



The same camera angle, $\theta_1 = \theta_2$.



The same distance from camera to subject, $d_1 = d_2$.



The same lens angle, $\alpha_1 = \alpha_2$

Providing the lens aperture is similar, the lens depth of field will also be similar, and then the shots will 'match'.

In a three person dialogue never shoot matching a two shot

Reason

The reason lies in the needs of post-production. When, within a three person dialogue, a two shot is edited to a two shot, the subject in the centre position will appear to move from one side of the screen to the other.

Example

Three people are talking, persons A, B and C. Person B is in the middle and an attempt at matching is made using the 'two shot'. Obviously, person B will be on both shots. In the first shot, B is on the left-hand side of the screen and, in the second shot, B will have moved to the right-hand side of the screen. Clearly these two shots would jump if the editor tried to cut them together.

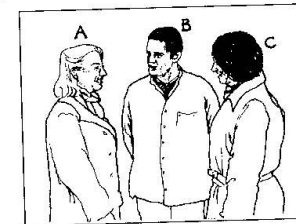
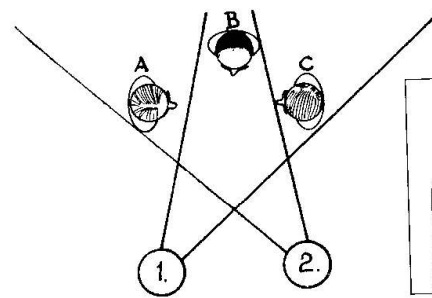
Solutions

It follows that, in a three person group, there is no such thing as a matching 'two shot'. Consequently, shoot so that a 'two shot' of say persons B and C can be followed by a shot of person A alone, or the opposite way around.

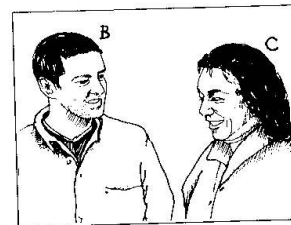
Another method is to use a complex shot. This can be done by a pan from a two shot to another two shot, PROVIDING there is good enough motivation to make the pan.

Exceptions

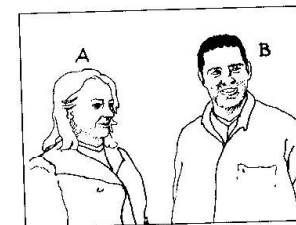
When shooting four people in a group, then the 'two shot' will match.



Persons A, B and C

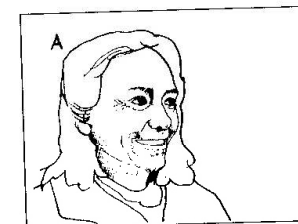
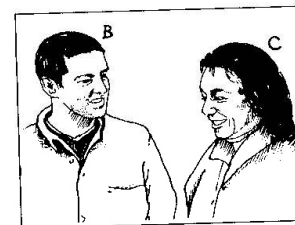


Two shot from position 1



Two shot from position 2

These two shots, even though they are matching, will not edit.



These two shots will edit but care must be taken when shooting person A as an MCU that the frame does not contain the edges of person B.

When shooting head shots of a subject, the more full face the shot is, the better

Reason

The more the camera angle approaches full face, the more facial expression is gained. An important element of the facial expression is centred on the eyes, and consequently, the more the two eyes are in frame, the more convincing the shot is to the audience, because the eyeline is closer to theirs.

Obviously, if the camera angle is actually on the eyeline, then the shot changes from being an objective shot to a subjective shot.

Solutions

In the case of the objective shot, the aim would be to have a camera angle close enough to the eyeline of the subject to have the most convincing facial expression, but not so close that it appears that the subject is talking direct to the camera.

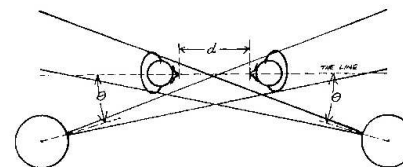
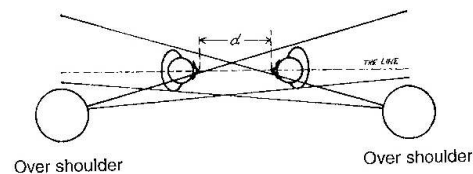
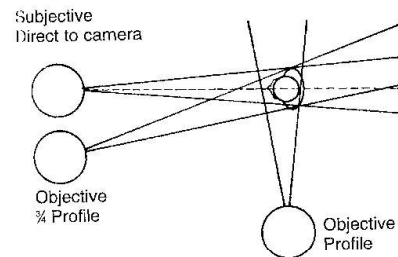
Example

With two subjects facing each other, the full face practice applies even more. However, the closer the camera angle approaches the eyeline, the more likely the shot is to be contaminated by a spurious foreground. Also, the closer the two subjects are to each other, the less likely the cameraman is to obtain a 'clean' simple shot of one of the subjects. The further they stand apart, the easier the simple shot becomes, but the more difficult the well framed over shoulder shot becomes.

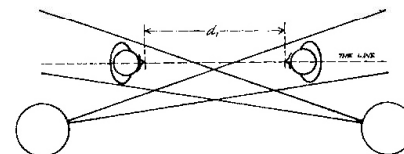
With a single subject there can be no over shoulder shot, and consequently, the camera angle can be very small.

Exceptions

The exception to this practice is in a shot which needs to restrict visual information. Then the shot becomes more of a profile.



To obtain a 'clean' shot the camera angle (θ) must be increased.



OR the distance between the subjects d_1 must be increased.

When shooting the rise in two separate shots, allow sufficient double action

The rise is the name given to a subject action which rises from one level to another. Thus the action of a seated subject, who then stands, is called a rise.

The rise can be shot in one complex shot, or two simple shots. This working practice refers to the rise being shot with two simple shots.

Reason

Overlapping action must be included on both shots to allow the editor to cut action at an exact frame on both shots when the continuity is identical. The rise is often considered slightly more difficult because, in the case of standing from a sitting position, the body does not move only in one direction but in three.

Example

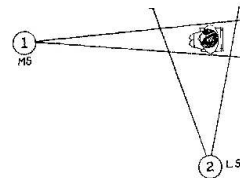
A subject is to rise, sitting to standing. Two simple shots are called for: one, an MS from the front of the subject; and the second, an LS, shot at 90 degrees from the first. In the first shot, the head will come forward before the knees straighten, and then the body rises so that the head exits the frame and the camera finishes shooting the waist. In the second shot, the action is from the beginning of the movement to the end of the complete action.

The editor will try to cut the shot so that the eyes of the subject never leave the first shot.

The sequence is a little easier the other way around, i.e. from LS into MS, but care must be taken when shooting to position the rise on the LS so that the head is approximately in the same position within the screen as in the MS.

Exceptions

When shooting for a continuity (action) edit, there are no exceptions to the overlapping action requirement. Obviously this is not so when shooting the rise in one complex shot.



SHOT 1 MS



MS (direct to camera) subject seated.



The head comes forward and consequently appears larger.

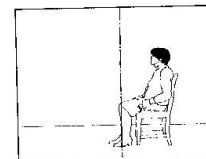


The subject comes even closer and lens distortion becomes possible. The subject begins to rise and the eyes reach the upper frame.

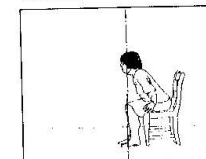


The head has left the screen and the subject is now fully standing.

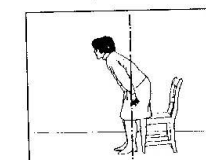
SHOT 2 LS



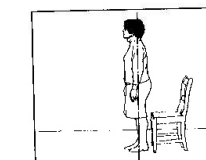
LS (profile) subject seated and set for a rise to the centre screen.



The subject leans forward (screen left) and the head takes the position above the instep of the foot.



The subject begins the rise as the head continues to move screen left and also upwards.



The rise completed, where the head resumes its balanced position above the instep.

When shooting a close-up of an action, as a cut-away, shoot a slightly slower version

Reason

An action on a wide shot covers a small amount of screen. When the same action is seen in close-up, the real time of the action remains constant, but the action travels further.

It appears that action in close-up shots takes less time to complete than the same action in a wide shot.

Example

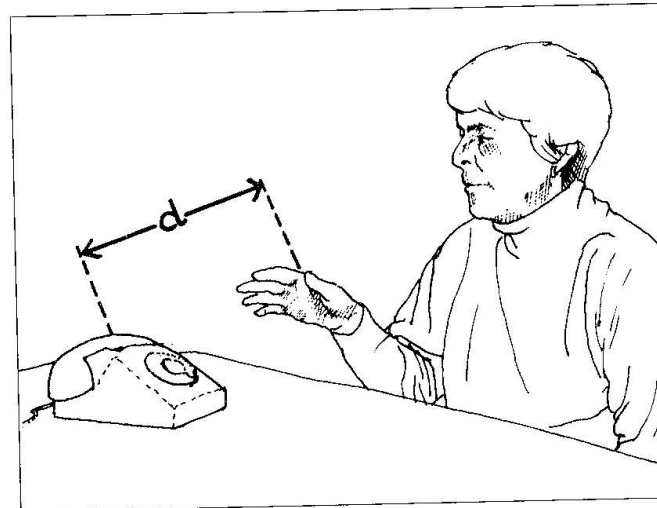
A woman sitting at a desk hears the telephone ring; she picks it up and answers it. Say the scene calls for two shots. Shot 1 is the woman reaching down for the telephone, picking it up and answering. Shot 2 is a close shot of the telephone being picked up and will be edited into shot 1. In shot 1, MCU or wider, the hand will travel up to half way across the screen before the editor will cut out of it. In shot 2, the close-up, the hand, whilst still travelling in the same direction, will cover almost the area of the screen in less time. Even though the action is the same real time in both shots, the action when on close-up will seem faster because the shot is concentrated on one small area.

Solution

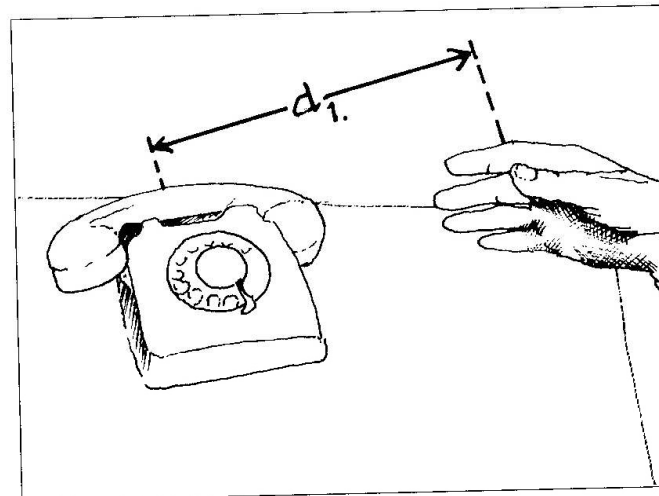
Shoot a version of the hand picking up the telephone slightly slower than the real action.

Exceptions

When shooting live, or with two synchronised cameras.



In the wide shot the hand travels distance d .



In the cut-away the hand travels d_1 in the same real time.

Cross the line with care

Reason

Any subject shot from both sides of the line will result in a directional change of some sort. Either this directional change can be used within the story, or it must be camouflaged by some other movement or shot.

There are only a limited number of ways to effectively cross the line.

Solution

Method 1: Be seen to cross the line. This would need a developing shot of the subject, beginning on one side of the line and, in vision, crossing the line and finishing on the opposite side. As the audience has seen it happen, it is accepted because the eye is capable of appreciating what is happening. However, if there is no motivation for the movement of the camera in the developing shot, then another method should be used.

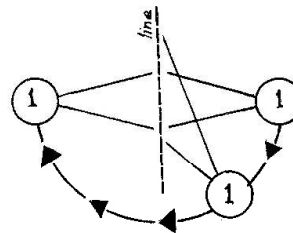
Method 2: Shoot an 'in between' shot, on the line. This means shooting the sequence from one side to the other in a number of simple shots where one of those shots is taken from on the line. In this way the audience is led from one side to the other by a 'sampling' of positions.

Method 3: Shoot a 'cut-away'. A shot of another subject related to the main subject, or even part of it, draws the audience's attention away from the line to this new subject, after which the attention can be brought back to the opposite side of the line. This method relies on there being a time interval between seeing one side of the line and returning to the opposite side.

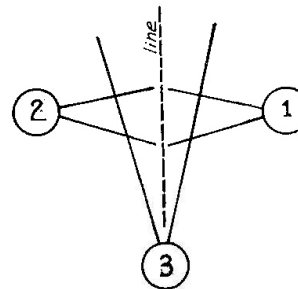
Exception

An exception when a change of direction is required by nature of the activity or of the story.

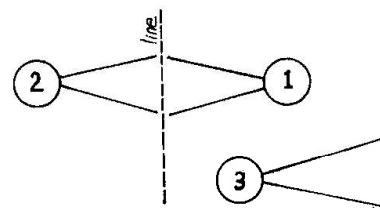
WAYS OF CROSSING THE LINE



Method 1
Be seen crossing the line with one continuous shot.



Method 2
Shoot an in-between shot on the line.



Method 3
Shoot a 'cut-away' of another, but related subject.

Clear the screen, the action or the shot, before the shot ends

Reason

This practice, whilst applying mainly to documentary shooting, also applies to drama work. The main reason for it is the need, during editing of the shots, for a time interval between one shot with its activity and a following shot with another activity. This time interval allows the editor greater possibilities in the final selection of the editing point.

Example – Clear the screen

A woman, shot LS, is walking across the screen, left to right. Providing the woman is allowed to exit the screen completely, the next shot can have the woman walking right to left, because there is a suggested time interval during which the woman can have changed direction. This time interval is the combined lengths on both shots which do not contain the woman, in this case the end of one shot and the beginning of another.

Example – Clear the action

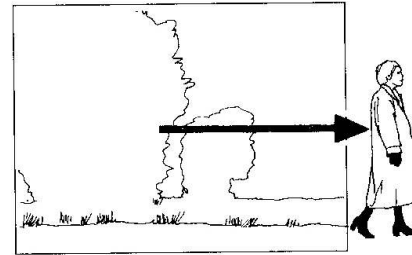
The subject is to use the telephone. Two shots are called for, one an MCU of the subject looking down at the telephone; and the second shot is the hand of the subject punching the numbers. The action of punching up to twelve numbers will be followed with either the hand remaining on shot, or the hand exiting shot. Even if the hand remains on shot, the number of editing possibilities is increased because the action, the punching of the buttons, has been cleared or completed.

Example – Clear the shot

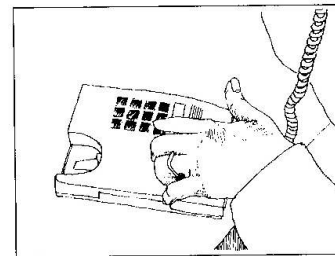
At the end of a pan, a man has walked to a door. He opens the door, passes through and closes it behind him. The shot should continue until the door has been closed, with the framing the same as the end framing of the pan.

Exceptions

There are no exceptions to this practice.



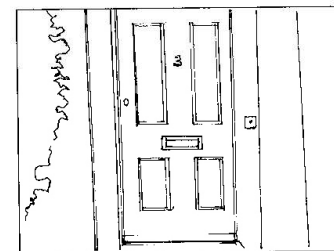
Let the subject clear the screen completely.



Finish the action.



At the end of the pan ...



... let the door close, wait, then end the shot.

Working Practices

at the end of a programme when the last bar of the music equates with the final caption and the fade to black.

Exception

The main exception to this practice is where the music is faded extremely gradually into or under other sound, dialogue or music which is stronger than the first.