

8

CHAPTER

Rhythm

Rhythm is easy to experience but difficult to describe. Rhythm is perceived in three different ways: we hear it, we see it, and we feel it. We're most familiar with rhythm we can hear, so we will define rhythm's sub-components using the sound from a musician's metronome. A metronome's ticking sound creates beats that we recognize as rhythm. Every rhythm is made up of three subcomponents: alternation, repetition, and tempo.

Alternation

A metronome's rhythm exists because there's a sound followed by a moment of silence. Without alternation between sound and silence there can't be any rhythm.

There are many types of alternation. There is alternation between sound and silence, high- and low-pitched sounds, or loud and quiet sounds, for example.

The sounds of a ticking clock, walking feet, and a bouncing ball reveal their rhythms because of the alternation. White noise, like the sounds of a constantly humming fan or a waterfall, doesn't have rhythm because it lacks alternation.

Repetition

The alternation of the metronome must repeat. A single beat from a metronome doesn't produce a rhythm. Sound – silence – sound – silence – sound creates a rhythm.

We can't recognize the rhythm of walking feet if the walker takes only one step. If a ball bounces only once, it won't create a rhythm.

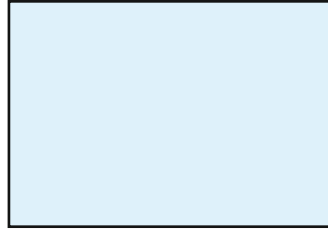
Tempo

A metronome has a speed control to change the time between sounds. Any rhythm has a rate of alternation and repetition that is called tempo. The rhythmic difference between walking and running is tempo. A long interval of time creates a slow tempo and a short interval of time creates a fast tempo.

A metronome produces a rhythm we hear, but now we must define rhythm we can see. Visual rhythm is defined by the same subcomponents of alternation, repetition, and tempo. Visual rhythm can be created by stationary objects, moving objects, and editorial cutting.

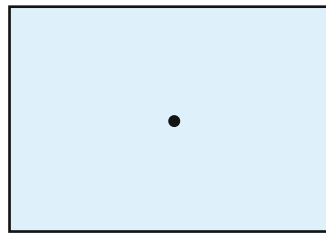
Rhythm of Stationary Objects

Visual rhythm is created by placing stationary objects in the frame. This is called composition. Simply stated, composition is the arrangement of objects within the frame.

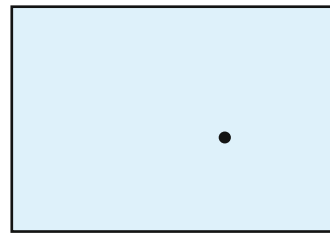


SHOT #1

Shot #1 is an empty frame. It is the visual equivalent of white noise. This shot has no visual rhythm because there isn't any alternation, repetition, or tempo.

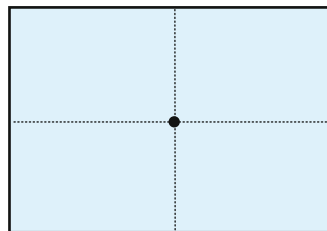


SHOT #1A



SHOT #1B

An object—a dot—has been added, and now the empty frame has a visual rhythm. Shots #1A and #1B both have rhythm, but Shot #1B appears more intense than Shot #1A.

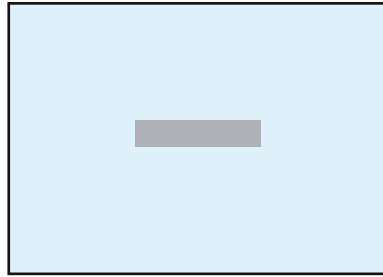


SHOT #1A-1



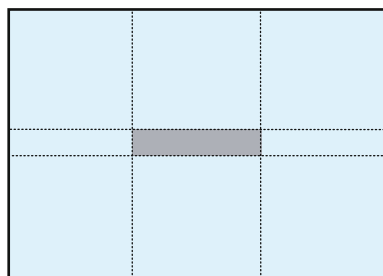
SHOT #1B-1

The reason for Shot #1B's greater intensity is revealed when lines are drawn through the dot. Shot #1A-1 divides the frame into four equal areas, and #1B-1 divides the frame into four unequal areas. The Principle of Contrast of Affinity tells us that affinity (Shot #1A-1 is four equal areas) reduces visual intensity, and contrast (Shot #1B-1 is four unequal areas) increases visual intensity. The arrangement of objects in the frame (composition) and the lines created by these objects is the key to understanding visual rhythm in stationary objects.



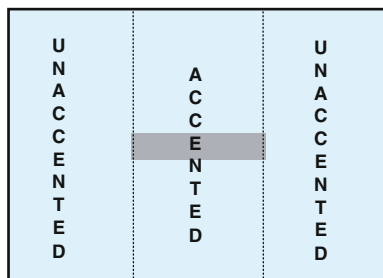
SHOT #2

When a single object, a gray rectangle, is placed in the frame it generates alternation and repetition, creating a rhythm.



SHOT #3

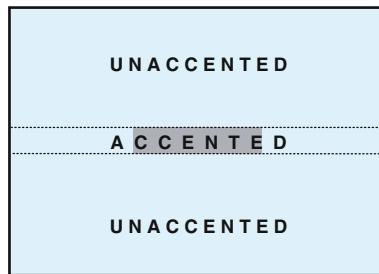
Extending the sides of the gray rectangle with dotted lines reveals how the rhythm is produced. The dotted lines have divided the frame into smaller areas. The vertical and horizontal lines can be analyzed separately for their visual rhythm and then combined.



SHOT #4

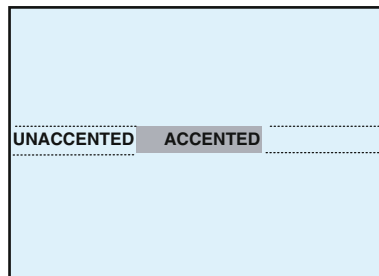
The vertical lines, created by the gray rectangle, have divided the frame into thirds. There is alternation between these thirds. The center third is a dominant, or accented, beat because it contains the gray rectangle. The thirds on the left and right are unaccented, because they don't contain any objects. Just as sound rhythm alternates between sound and silence, Shot #4 illustrates how the visual rhythm alternates between accented and unaccented areas of the frame. Sometimes the term "positive space" is used for accented areas,

and “negative space” is used for unaccented areas. The two unaccented areas create the needed repetition.



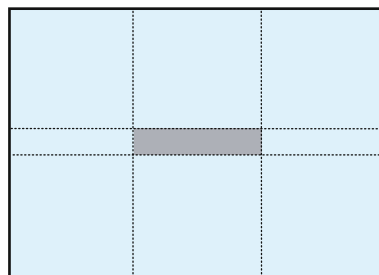
SHOT #5

There is also alternation in the horizontal divisions created by the gray rectangle. The narrow accented band in the center alternates with the larger unaccented areas above and below it. The two unaccented areas create repetition.



SHOT #6

Even the narrow center band can be divided into alternating thirds. The gray rectangle and the narrow bands to its left and right create alternation. The gray rectangle is accented, and the two side areas are unaccented.

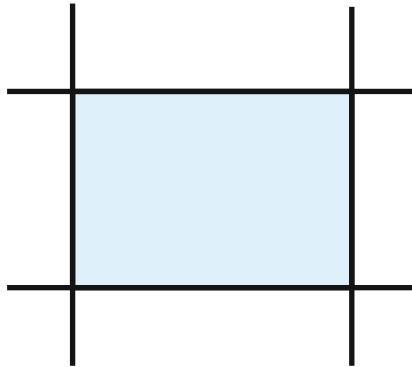


SHOT #7

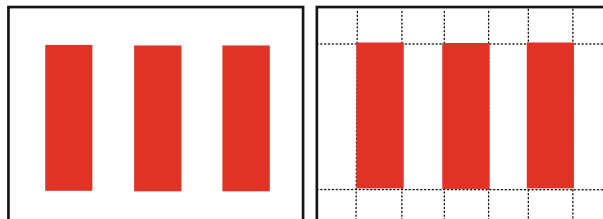
Combining the vertical and horizontal lines reveals the complete visual rhythm. The dotted lines show how the frame has been divided into a variety of areas.

Dividing the frame has also created tempo. The viewer scans the entire frame and makes several instantaneous measurements. The distance between the

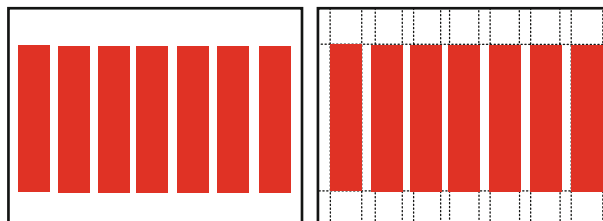
gray rectangle and the frame lines and the proportion of the divided areas of the frame are measured by the eye, resulting in a sense of visual rhythm. The tempo in Drawing #7 is slow.



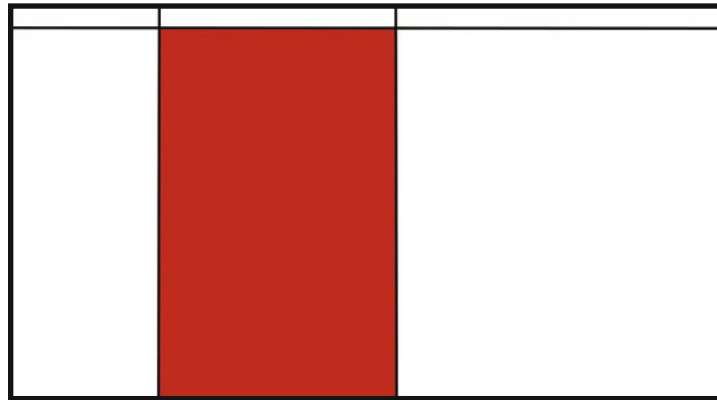
The frame itself has four important lines that can contribute to the visual rhythm. The frame's vertical and horizontal lines help define the visual repetition created by lines within the frame.



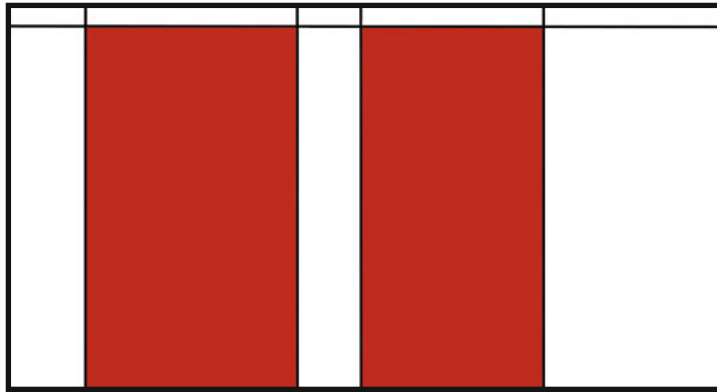
Now the frame is divided into more parts, and the tempo increases. The three stationary (nonmoving) squares represent a moderate rhythm. A viewer is aware of the frame lines and when dotted lines are added between the rectangles, the alternation, repetition, and tempo are revealed. There is alternation between the rectangles, the space around them, and the frame lines. There is repetition in the rectangles themselves, and there is a faster tempo created by the number of frame divisions.



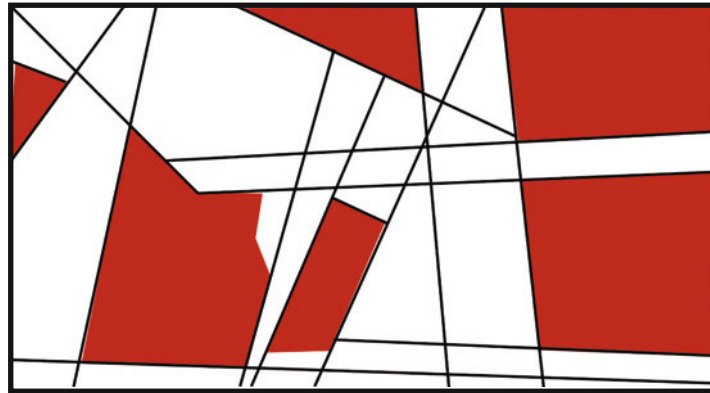
The alternation, repetition, and the tempo are faster because there are more rectangles that divide the frame into more parts. But we don't make films or videos about rectangles, so these rhythm concepts must be related back to the real world.



An actor has replaced the rectangles, but the subcomponents of visual rhythm are still the same. A rectangle substitutes for the actor and reveals lines that divide the frame into separate areas. There is alternation. The actor becomes the accent surrounded by unaccented areas. There is repetition, because the frame is divided into more than one area, and the tempo is slow. This picture has a slow, slightly irregular visual rhythm. If the actor was centered in the frame, the rhythm would be slow and regular.



This two-shot divides the frame into more areas. Adding rectangles and lines reveals the shot's alternation, repetition, and tempo. The shot has a moderate, regular rhythm.



This shot has a fast, irregular rhythm. The graphic of rectangles and lines reveals how the visual rhythm really looks. The divided areas of the frame are unequal, so the tempo changes as the viewer looks around the frame.

Rhythm of Moving Objects

An object must move in relation to the frame line to create movement. Most object movement does not create rhythm.

There are two types of rhythm in moving objects: primary and secondary. The movement of a whole object creates a primary rhythm. When a part of the whole object moves independently, a secondary rhythm can be created.

Primary Rhythm

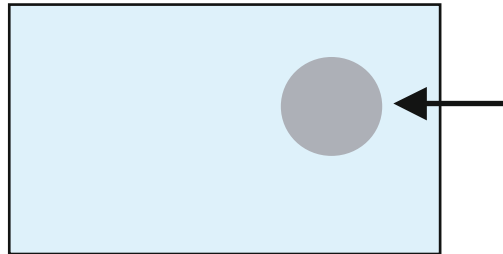
There are four ways a moving object can create a primary visual rhythm:

- Entering and exiting the frame
- Moving in front of or behind another object
- Moving and stopping
- Changing direction

The movement of a ball can demonstrate the following four methods of creating primary visual rhythm.

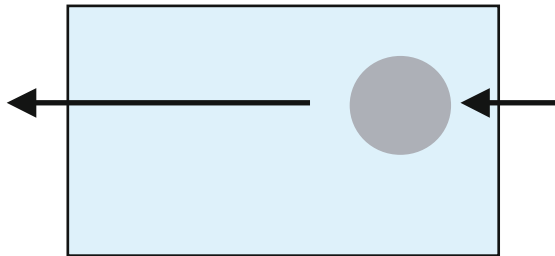
Entering and Exiting the Frame

When an object crosses the frame line, a single visual beat is created.



SHOT #13

The ball entering frame cannot create visual rhythm because a single beat lacks alternation, repetition, and tempo.



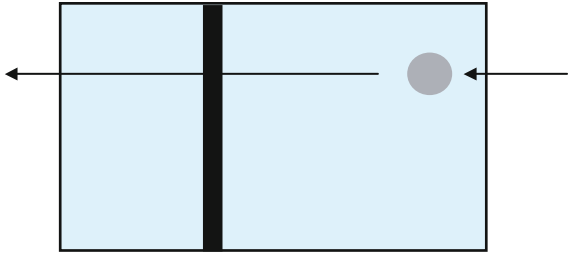
SHOT #14

A rhythm may be created if the ball enters and exits the frame because it produces alternation and repetition. The frame lines act as visual accents in contrast to the unaccented frame area. Repetition occurs because there are two frame lines, and the ball crosses both of them.

If several objects enter and exit the frame, a more complicated visual rhythm is created. Each object's entrance and exit produces an additional visual beat.

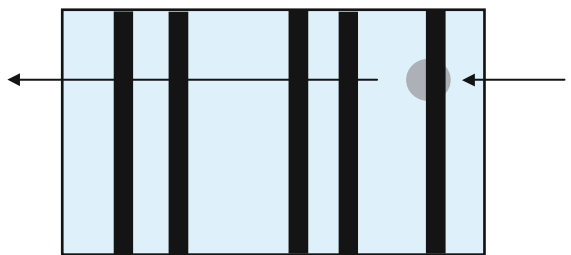
Passing Another Object

A visual beat is created when a moving object passes in front of or behind other objects.



SHOT #16

The ball enters frame, moves past a FG or BG object (drawn here as a pole), and exits frame. As the ball passes the pole it will produce a visual beat like the ones created when the ball entered and exited the frame.

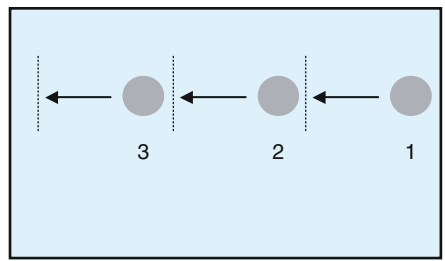


SHOT #17

Adding more FG or BG objects increases the alternation, repetition, and tempo. The moving object emphasizes the visual rhythm created by the stationary objects. As the moving object passes a stationary FG or BG object, that existing visual beat is made stronger.

Moving and Stopping

If an object starts and stops moving in frame more than once, a visual rhythm is produced.



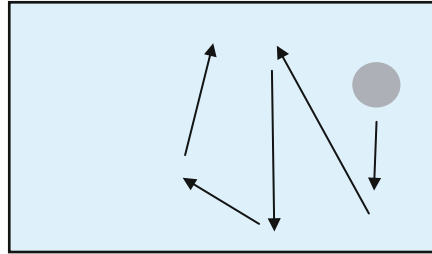
SHOT #18

The stopping and starting ball has alternation, repetition, and tempo just like a metronome.

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Changing Direction

A change in direction, if it happens more than once, will also create a visual rhythm.

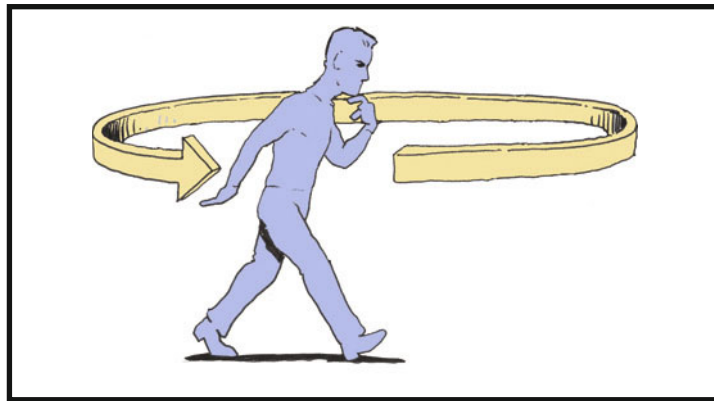


SHOT #19

Each change in the direction of the ball's movement will produce visual alternation, repetition, and tempo.

Secondary Rhythm

A secondary rhythm is generated by the movement of part of an object that already generates a primary rhythm.



The Primary Rhythm is a person pacing back and forth; the Secondary Rhythm is the person's moving legs and feet.

There is a primary rhythm as the person stops and starts or changes direction, but there is also a secondary rhythm produced by the person's moving legs and feet that has alternation, repetition, and tempo completely separate from the primary rhythm.

Editorial Rhythm

There is rhythm in editing. Every time the editor makes a cut, a new rhythmic beat can be produced.

Editorial rhythm has the same basic components of alternation, repetition, and tempo. Editorial alternation occurs because the cut is the accent or beat and the time between cuts is the unaccented alternate. The greater the visual contrast in the visual components from shot to shot, the stronger the beat produced by the cut.



These two pictures have contrast of tone. One is extremely dark and the other is bright. When these two shots are intercut, the tonal contrast from shot to shot will create a strong rhythmic beat.



These two shots are similar in space, line, tone, and color. Their visual affinity will make the rhythmic beats created by intercutting less intense.

Two kinds of visual repetition occur when a cut is made. The first type is editorial repetition. It occurs because a beat is produced by every cut or edit. With each cut, the pattern of repetition is continued.

The second type is pictorial repetition, which occurs when the same shots are repeated. If the editor is intercutting two close-ups in a conversation scene, a repetition occurs. The audience sees two alternating shots repeated again and again. The more often the same shots are repeated, the more apparent the repetition becomes, creating visual affinity. Visual intensity diminishes each time the same shot is repeated.

Finally there is editorial tempo. Any series of edits will have a tempo that remains constant, speeds up, or slows down. It's easier for an audience to sense visual rhythm in sequences with faster cutting tempos. As the time between edits increases, the audience's sense of the editorial tempo diminishes. What is actually a slow tempo may read as no tempo at all, because the time length between edits is too long. It is difficult for an audience to sense editorial repetition if the edits are more than approximately ten seconds apart.

The Principle of Contrast & Affinity can be controlled through editing. Editing is the picture maker's last chance to manipulate the structure of the story,

the nature of the actors' performances, and the basic visual components. The ultimate control of the Principle of Contrast & Affinity is in the hands of the editor, but an editor can use it only within the confines of the footage that has been produced.

The Event

A single action, a scene or a group of scenes, or an entire story can be called an event. This event can be simple (a hand opens a door) or complex (a person is born, lives to be 90 years old, and dies). Any event can be broken down into a number of subevents.

The event is simple: "a hand opens a door." The subevents that make up the event are:

1. The hand reaches for the doorknob.
2. The hand grasps the knob.
3. The hand turns the knob.
4. The door latch moves.
5. The door begins to open.
6. The hand releases the knob.
7. The door completely opens.

Listing the subevents allows us to understand each part of the overall event. On a time line, the event looks like this:



Each number on the time line represents a subevent from "a hand opens a door."

Breaking down an event into subevents reveals the parts of the event. It helps the picture maker find the event's story structure and discover the best way to photograph it. Any event can be photographed continuously or fragmentedly.

The Continuous Event

When an event is photographed in a continuous manner, there are no camera cuts. As the event progresses in time moving from one subevent to the next, the camera will run continuously. The camera can remain stationary or it can move, but the event and all its subevents will be photographed in one continuous take. When the event ends, the camera is shut off. First-person video games are good examples of continuous events. The screen is the player's view and the playing event happens continuously. When the event is over, the player has failed or completed the game.

In the continuous event, editing will be unnecessary because the entire event is captured in only one shot. The editor will not have control over the rhythm or anything else in the shot. The visual rhythm of the scene must be controlled as the event is being photographed.

The Fragmented Event

Alternatively, an event can be photographed in a fragmented manner where it is broken down into separate shots. Each subevent is given its own shot or several shots. This is usually called shooting *coverage*, and typically includes camera angles like a master shot, full shot, medium shots, close-ups, inserts, and cutaways, which, when edited together, reconstruct the subevents into a single event.

Greater visual component contrast in the fragmented subevents will increase the intensity of the visual structure. Using affinity in the fragmented subevents will lower the visual intensity. A skilled editor understands visual structure and can pick the fragmented subevents most appropriate for the story structure.

Continuous and fragmented events are opposites, and there are good reasons to use both techniques.

Visual Emphasis

Each type of event control will emphasize the other. Fragmentation will have more emphasis when it has been preceded by a continuous sequence. Conversely, a continuously filmed sequence will gain emphasis if it has been preceded by a fragmented sequence.

Contrast and Affinity Control

When filming is continuous, the ability to specifically orchestrate contrast and affinity is limited, because the camera can't be turned off during the event. A fragmented sequence makes control of contrast and affinity easier. Since fragmenting allows an event to be broken down into a series of subevents or separate shots, the visual components can be rearranged for each new shot. This means that the picture makers can create changes of contrast or affinity for any visual component in every shot. In postproduction, the editor can further arrange the fragmented shots to enhance the visual contrast or affinity.

Editorial Event Control

A fragmented event allows the editor to rearrange the order of the subevents. A continuously filmed scene will not permit editorial restructuring.

Editorial Rhythmic Control

Fragmenting permits the rhythm of a scene to be altered. The tempo of subevents can be increased or decreased through editing.

Visual Variety

Continuous and fragmented shooting is an important factor in the overall visual variety of a production. If an audience is going to watch a two-hour film,

how long can they watch something that's only fragmented? At what point will fragmenting lose its visual impact? Sometimes a visual structure needs continuous/fragmented variation just to keep the visuals from becoming dull.

Finding a Rhythm

Fragmenting an event is often difficult for actors who are trying to find the overall rhythm of a scene or sequence. The continuous event allows the actors to develop rhythms that might not emerge during short subevents.

Directorial Choice

The story can suggest a continuous or fragmented approach. A scene that involves real time might play better as a continuous shot. A scene involving complex action might best be filmed in a fragmented manner so that the editor can manipulate the physical complexities. Sometimes an event is so complicated that it can be understood only when the subevents are fragmented. Other times, an event feels more real if it is filmed continuously, without editorial manipulation.

A continuous or fragmented technique has no strict rules for its use. You must evaluate the nature of every scene and decide what technique will best serve the story.

Rhythmic Patterns

Different stories have different rhythms. It's possible to draw a flow-line to represent the rhythms of a story that can help you discover the visual rhythms for a production.



This flow-line represents the rhythms of stories that alternate between great rhythmic peaks and valleys. The *Godfather*, *Ran*, *Raging Bull*, *Lawrence of Arabia*, and *Citizen Kane* are examples of this type of overall visual rhythm.



This staccato rhythm represents a faster, more energetic rhythm often used in physical comedies. *A Night at the Opera*, *Bringing Up Baby*, *Airplane*, and *Back to the Future* have visual rhythms suggested by this flow-line.



This slowly undulating flow-line has a slower rhythm that makes gradual, milder changes. *Howards End*, *Hannah and Her Sisters*, *Wings of the Dove*, and *The Sixth Sense* follow this rhythmic pattern.

Every story has a rhythmic flow-line pattern. It may be a combination of these examples or a different line altogether. Drawing a flow line for the rhythm is an easy way to visualize the rhythmic feeling of your production. This idea will be elaborated on in Chapter 9.

In the days of silent films, orchestras often played music during filming to help actors create the proper mood and rhythm of a scene. Today, because we record sound, the use of music on the set during filming is difficult; however, it's possible to rehearse with music or even a metronome.

Here are some standard metronome settings:

Metronome Setting	Number of Beats
240	4 every second
120	2 every second
60	1 every second
30	1 every two seconds

Using a metronome can help control the rhythm of dialogue, movement, or mood during production.

Contrast and Affinity

There are several ways that rhythm can create contrast or affinity. Remember that contrast and affinity can occur within the shot, from shot to shot, and from sequence to sequence.

Slow/Fast

A rhythm's tempo can range in speed from slow to fast. The tempo can be produced by stationary objects, moving objects, or the editor's cutting pattern.

Almost any meaning can be associated with any tempo. A faster tempo may communicate happiness, excitement, or comedic intent. A slower rhythm may suggest calm, sadness, or tragedy. Assigning general emotional values to any visual component is dangerous because it can lead to stereotypes. If controlled properly, any meaning can be associated with any rhythmic tempo.

The editor will create rhythm by cutting the fragmented scene together and by manipulating the rhythm of the scene itself. The editor can speed up or slow down the rhythm through editing.

Regular/Irregular

Rhythm is also classified in terms of being regular and irregular. When the tempo remains constant, the rhythm is regular. If the tempo changes often enough, the rhythm can develop an irregular pattern.

Because regularity has a predictable pattern, it usually communicates affinity or lack of intensity. An irregular rhythm generally increases the rhythmic contrast and produces greater visual intensity or dynamic.



The rhythmic beats in the first example, created by the vertical windows, create a slower, regular rhythm. The picture has rhythmic affinity. The second example, the bookstore, has a faster irregular rhythm and more visual contrast. The viewer's eye jumps quickly around the frame from the actor's face, to the ceiling lights, the light patterns on the wall, the books and the background actors.

Controlling Rhythm During Production

Rhythmic control is complex. Here are some guidelines for controlling it during production.

1. **Watch the lines.** Linear motif is the arrangement of stationary lines in the picture. It is also the key to finding the visual rhythm. Once you find the lines (using all the methods described in Chapter 4), evaluate them to find the rhythm. If there are only a few evenly spaced lines, the rhythm is probably slow and regular. As the number of lines increases, the visual rhythm gets faster. If the lines are uneven, it's probably an irregular rhythm.
2. **Don't confuse rhythm with movement.** Most visual rhythms are created by stationary objects. A fast movement may not have a fast rhythm (or any rhythm at all). A movement can be slow or fast, but that is a separate visual component.
3. **Find rhythm in movement.** Certain types of movements do create visual rhythm. The rhythmic beat will increase in intensity as the moving object gets larger in frame.
4. **Find the rhythm for a scene.** If you have dialogue, find the sound's rhythm first and then let it define the visual rhythm. If there is no dialogue, using other sounds or music can help you discover the visual rhythm.
5. **Plan the editing.** Decide how much editing will be involved in a scene or sequence. This will affect the amount of fragmentation or coverage you'll need.

Films to Watch

Rhythmic Control

Each of these films has a distinct rhythmic control of the sound and visual components. Watch the films with the sound on, and then again with the sound off, and the rhythmic structure of the pictures and the editing will become clear.

Raging Bull (1980)

Directed by Martin Scorsese

Written by Paul Schrader and Mardik Martin

Photographed by Michael Chapman

Art Direction by Gene Rudolph

Edited by Thelma Schoonmaker

Rumble Fish (1983)

Directed by Francis Ford Coppola

Screenplay by Francis Ford Coppola

Photographed by Steve Burum

Production Design by Dean Tavoularis

Edited by Barry Malkin

Barry Lyndon (1975)

Directed by Stanley Kubrick

Written by Stanley Kubrick

Photographed by John Alcott

Production Design by Ken Adam

Rashomon (1951)

Directed by Akira Kurosawa

Written by Akira Kurosawa

Photographed by Kazuo Miyagawa

Art Direction by H. Motsumoto

The Last Picture Show (1971)

Directed by Peter Bogdanovich

Written by Peter Bogdanovich and Larry McMurtry

Photographed by Robert Surtees

Production Design by Polly Platt

Edited by Don Cambern

The Continuous and Fragment Event

Touch of Evil (1958)

Directed by Orson Welles

Written by Orson Welles

Photographed by Russell Metty

Art Direction by Robert Clatworthy

Edited by Edward Curtiss

Goodfellas (1990)

Directed by Martin Scorsese

Written by Nicholas Pileggi

Photographed by Michael Ballhaus

Production Design by Christie Zea

Edited by Thelma Schoonmaker

The Untouchables (1987)

Directed by Brian DePalma

Written by David Mamet

Photographed by Steven Burum

Production Design by Patrizia Von Brandenstein

Edited by Jerry Greenberg

Man on Fire (2004)

Directed by Tony Scott

Screenplay by Brian Helgeland

Photographed by Paul Cameron

Production Design by Benjamin Fernandez and Chris Seagers

Edited by Christian Wagner

Run, Lola, Run (1999)

Directed by Tom Tykwer

Written by Tom Tykwer

Photographed by Frank Griebe

Production Design by Alexander Manasse

Edited by Mathilde Bonnefoy

JFK (1991)

Directed by Oliver Stone

Written by Oliver Stone and Zachary Sklar

Photographed by Robert Richardson

Production Design by Victor Kempster

Edited by Joe Hutshing and Pietro Scalia

The Russian Ark (2002)

Directed by Alexander Sokurov

Written by Anatoli Nikiforov

Photographed by Tilman Büttner

Art Direction by Natalya Kochergina

Traffic (2000)

Directed by Steven Soderbergh

Screenplay by Stephen Gaghan

Photographed by Steven Soderbergh

Production Design by Philip Messina

These films use continuous and fragmented techniques to create a variety of visual rhythms.

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