

Animation Vocabulary and Principles of Animation

Animation - A filmmaking technique where the illusion of motion is created frame-by-frame. The word comes from the Latin word, "anima," meaning "life" or "soul".

Animator- The person who draws the moving character in an animated film.

Anticipation - An action occurs in three parts:

1. the preparation for the action - this is anticipation
2. the action
3. the termination of the action

Staging - Staging is the presentation of an idea so that it is clear. This idea can be an action, a personality, an expression, or a mood. The key idea is that the idea is made clear to the viewer.

An important objective of staging is to lead the viewers eye to where the action will occur so that they do not miss anything. This means that only one idea at a time occur, or else the viewers may be looking at the wrong thing. So, the main object should be contrasted in some way with the rest of the scene. A good example is motion, since the eye is drawn to motion in an otherwise still scene. In a scene with everything moving, the eye is drawn to a still object.

Straight Ahead Action- Straight ahead action is so called because an animator literally works straight ahead from the first drawing in the scene. This process usually produces drawings and action that have a fresh and slightly zany look, because the whole process is kept very creative.

Straight ahead action is used for wild, scrambling actions where spontaneity is important.

Pose-To-Pose Action -In pose-to-pose animation, the animator plans his action, figuring out just what drawings will be needed to animate the scene. Pose-to-pose is used for animation that requires good acting, where poses and timing are important.

Follow Through - Follow through is the termination part of an action. An example is in throwing a ball - the hand continues to move after the ball is released. In the movement of a complex object different parts of the object move at different times and different rates. For example, in walking, the hip leads, followed by the leg and then the foot. As the lead part stops, the lagging parts continue in motion.

Heavier parts lag farther and stop slower. An example is in the antennae of an insect -

they will lag behind and then move quickly to indicate the lighter mass.

Overlapping - means to start a second action before the first action has completely finished. This keeps the interest of the viewer, since there is no dead time between actions.

Slow In and Slow Out - This refers to the spacing of the inbetween frames at maximum positions. It is the second and third order continuity of motion of the object. Rather than having a uniform velocity for an object, it is more appealing, and sometimes more realistic, to have the velocity vary at the extremes. For example, a bouncing ball moves faster as it approaches or leaves the ground and slower as it approaches leaves its maximum position. The name comes from having the object or character "slow out" of one pose and "slow in" to the next pose.

Arcs - Most natural action tends to follow an arched trajectory, and animation should adhere to this principle by following implied "arcs" for greater realism. This can apply to a limb moving by rotating a joint, or a thrown object moving along a parabolic trajectory. The exception is mechanical movement, which typically moves in straight lines.

Secondary Action - Adding secondary actions to the main action gives a scene more life, and can help to support the main action. A person walking can simultaneously swing his arms or keep them in his pockets, he can speak or whistle, or he can express emotions through facial expressions. The important thing about secondary actions is that they emphasize, rather than take attention away from the main action. If the latter is the case, those actions are better left out. In the case of facial expressions, during a dramatic movement these will often go unnoticed. In these cases it is better to include them at the beginning and the end of the movement, rather than during.

Timing - Timing refers to the number of drawings or frames for a given action, which translates to the speed of the action on film. On a purely physical level, correct timing makes objects appear to abide to the laws of physics; for instance, an object's weight decides how it reacts to an impetus, like a push. Timing is critical for establishing a character's mood, emotion, and reaction. It can also be a device to communicate aspects of a character's personality.

Exaggeration - Exaggeration is an effect especially useful for animation, as perfect imitation of reality can look static and dull in cartoons. The level of exaggeration depends on whether one seeks realism or a particular style, like a caricature or the style of an artist. The classical definition of exaggeration, employed by Disney, was to remain true to reality, just presenting it in a wilder, more extreme form.

Solid Drawing - The principle of solid drawing means taking into account forms in three-dimensional space, giving them volume and weight. The animator needs to be a skilled draughtsman and has to understand the basics of three-dimensional shapes, anatomy, weight, balance, light and shadow, etc.

Appeal - Appeal in a cartoon character corresponds to what would be called charisma in an actor. A character who is appealing is not necessarily sympathetic – villains or monsters can also be appealing – the important thing is that the viewer feels the character is real and interesting. There are several tricks for making a character connect better with the audience; for likable characters a symmetrical or particularly baby-like face tends to be effective. A complicated or hard to read face will lack appeal, it may more accurately be described as 'captivation' in the composition of the pose, or the character design.

Background - A flat piece of artwork that is the setting for a moving character in an animated film. A background could be a picture of a forest, a sky, a room, or a castle.

Cel - A clear piece of plastic on which the animator's finished drawings are painted. The cel is clear so that when placed over the background, the animated characters appear to be in a setting.

Frame- An individual still picture on a strip of film. 24 frames equal one second of a motion picture.

fps – Frames per Second.

Frame-by-frame- The filmmaking technique in animation where each frame is exposed one at a time and the object being photographed is slightly altered for each picture.

Ink and Paint- The step in cel animation where the animator's drawings are placed on cels to be photographed. A drawing is outlined on the front of the cel with black ink, while the back of the cel is painted.

Kinestasis (Kin-e-sta'-sis)- An animation technique using a series of still photographs or artwork to create the illusion of motion.

Model Sheet A- reference sheet for animators that shows a number of different poses of an animated character. The model sheet also shows how characters relate in size to other characters.

Pixilation (Pik si la' shun)- A stop-motion technique in which life-size props or live actors are photographed frame-by-frame. When viewed, they appear to be moving at a fast speed.

Script- The written story of a film that supplies dialogue, camera moves, background, staging and action.

Squash and Stretch- A drawing technique used by animators and originally developed at the Disney Studio to show exaggerated movements in characters. For example, if you wanted a character to jump, you would draw him close to the ground as if 'squashed' and then you would 'stretch' him out as he went into the air.

Storyboard- A "storyboard" is a visual representation of a story. Pictures can be sketched on pieces of paper and pinned to a large board, or they can be drawn on a large piece of paper, comic-book style, to represent scenes in a film.

Story Sketch- A story sketch should show character, attitude, feelings, entertainment, expressions, type of action, as well as telling the story of what's happening. When you look at a board, it should reflect the feeling of the sequence so the viewer starts to pick up some excitement and stimulation. A story sketch artist at an animation studio is usually an artist who has special interest in illustration, design, appearance, and character.

Zoetrope- (zo'-e-trop) - An early animation device that spins drawings in a revolving drum to create the illusion of motion.

Inbetweens- Drawings that are inbetween the drawings that are at the beginning and end poses.

Extremes- Drawings that are at the beginning and end of a particular pose.

Tweening - Short for in-betweening, the process of generating intermediate frames between two images to give the appearance that the first image evolves smoothly into the second image. Tweening is a key process in all types of animation, including computer animation.