

Image and Illusion

WE LIVE IN A VISUAL CULTURE. STUDENTS ARE bombarded with images that they consume through a variety of formats. Smartphones and iPads are increasingly accessible, even infiltrating classrooms as the next wave of educational technology. This development has propelled educators to consider a new kind of aptitude—media literacy. The capacity to utilize technology, and to decipher and evaluate broadcasts of information and images are essential for navigating the twenty-first century.

Students who access new media acquire skills without even realizing it; these skills often go untapped and undeveloped in the classroom. The critical thinking and visual analysis required to consume and assess new media are also inherent in “reading” illusions at play in traditional and contemporary art forms. For example, an artist may repeat the same figure numerous times in a painting to convey a sense of movement, just as the filmmaker utilizes the rapid sequence of a figure in numerous frames to represent action. In both examples, movement is implied, not actual, and it is up to the viewer to interpret the illusion within each art form in order to understand it as such. The curriculum materials provided here examine how artists have utilized image and illusion throughout the ever-technological-changing world of the last 150 years, as well as identify key components of visual media with the goal of fostering media literacy.

Illusion in the Technical Age

Image and illusion are as old as human history. Humans have represented images of their surroundings and of their imagination reaching back to the prehistoric days of cave painting. Traditional art techniques changed during the nineteenth century when technological advances sparked the invention of photography, and expanded the tools available to artists. Images could now mirror reality, or at least record scenes as they appear to the human eye, thus bypassing the representation of reality created by the artist’s hand. The application of visual illusion remained, however. As photography, film, and other new media developed, artists used new art forms in combination with traditional elements of art developed over the previous millennia: the illusion of movement, space, sound, time, and light. The following works of art and cinema represented here—chosen from LACMA’s permanent collection and from two special exhibitions currently on view, *Masterworks of Expressionist Cinema: Caligari and Metropolis* (September 22, 2012–March 10, 2013) and *Stanley Kubrick* (November 1, 2012–June 30, 2013)—do not mark the first time such concepts were utilized in technology-based media, but they do serve as excellent examples of these elements.

The Illusion of Movement

THE MOVING IMAGE IS SO UBIQUITOUS TODAY THAT we rarely consider how people first responded to the new art form. In 1896 the filmmaking duo of Auguste and Louis Lumière premiered one of the first motion pictures: a silent, documentary film of a steam locomotive arriving at La Ciotat station in Bouches-du-Rhône, France. According to the American Film Institute (AFI), it is rumored that the audience became so alarmed by the illusion of the moving image that they ran to the back of the room, screaming out in fear that the train might jump from the screen.¹

Film, by its very definition, is the repetition of a series of images. When images are projected in rapid succession (twenty-four frames per second), the optical illusion of seamless **movement** is created for the viewer. The Lumière brothers understood that if they placed the camera on the station platform where the train was set to arrive, the transition from the long shot (the train as it appears in the background) to the medium shot (the train as it appears in the middle ground) to the close-up (the train as it appears in the foreground) would create one continuous, real-time shot. The quick progression of images from these perspectives created the illusion of motion —and the perception that the train might actually come to life.

Mini–Motion Pictures:

Create a flipbook by storyboarding a series of twenty-four images to create a moving story. Sketch each of the scenes using a variety of perspectives, showing setting, character, and action in the foreground, middle ground, and background. When finished, draw a final version of each frame on a separate sticky note. Seal all the notes together, and then flip to bring your story to life.

1 Melinda Corey and George Ochoa, *The American Film Institute Desk Reference* (New York: Dorling Kindersley, 2002), p. 25.



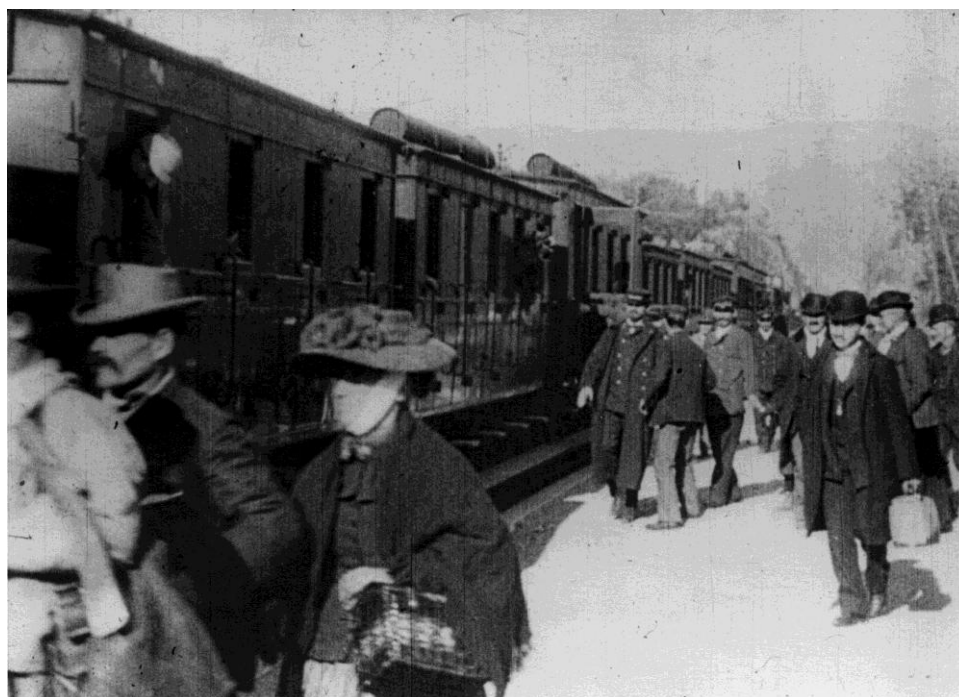
AUGUSTE AND LOUIS LUMIÈRE

France, 1862–1954 and 1864–1948

L'Arrivée d'un train en gare de La Ciotat (Arrival of the Train at La Ciotat), 1896

Photograph of a frame from *Arrival of the Train at La Ciotat*, depicting a train approaching a platform.

From the collections of the Margaret Herrick Library



AUGUSTE AND LOUIS LUMIÈRE

France, 1862–1954 and 1864–1948

L'Arrivée d'un train en gare de La Ciotat (Arrival of the Train at La Ciotat), 1896

Photograph of a frame from *Arrival of the Train at La Ciotat*, depicting a train arriving at a platform.

From the collections of the Margaret Herrick Library

The Invention of Special Effects

WITH A PENCHANT FOR PLAY, MAGICIAN-TURNED-filmmaker Georges Méliès used the medium of film to alter, rather than record, *reality*. His best-known film, *A Trip to the Moon*, chronicles the whimsical tale of six astronomers who embark on an interstellar journey. They build a rocket in the form of a bullet and construct a canon to catapult themselves into the eye of the Man in the Moon. Upon arrival, they revel in such astronomical spectacles as the Big Dipper, the Great Bear, and the passage of comets and meteors. When snow-fall disrupts their sleep, they descend into a crater, where they are captured by aliens. The astronomers fight their way through, reducing the fragile beings to dust. They rush back to the rocket and return to Earth in a dramatic ocean landing.

According to the AFI, Méliès is credited with the invention of special effects, and in *A Trip to the Moon*, he experimented with the use of live action in combination with animation, including the *stop trick effect*.¹ Stop trick is the illusion of objects or people appearing, disappearing, or morphing into other objects, as seen in the fight scene in which aliens disappear into smoke with the stroke of a fist. To create this effect, Méliès deliberately stopped filming at the point of contact, asked the “alien” to step out of frame, then resumed filming. In true magician’s form, the seamless result seemingly defies the laws and properties of physics.

Méliès was also one of the first filmmakers to layer compositional planes by physically dividing the frame into a separate background, middle

ground, and foreground. Within the frame, he would place miniature models in front backdrops. To create the illusion of an underwater landing, for example, he placed a painting of a faux shipwreck and floating jellyfish in the background, with a fish tank immediately in front of the camera. While filming, he dropped a miniature rocket in the water to mimic a life-size landing, complete with real fish swimming away from the tide of waves. It is this nexus of art and film, and the pursuit of visual illusion, that would later flourish in Europe with the advent of what came to be called Expressionist cinema (a movement characterized by the expression of emotional experience rather than physical reality).

1 Melinda Corey and George Ochoa, *The American Film Institute Desk Reference* (New York: Dorling Kindersley, 2002), p. 30.

Stop Trick Flick:

Translate your flipbook into a live action story, incorporating the stop trick effect. Photograph a series of images inspired by your flipbook’s story, using classmates as actors and the school campus as the setting. From one image to the next, try jumping from one perspective to another (such as long-shot to close-up), or add or remove objects or people within the frame to create the illusions of appearance or disappearance. Upload the images to the computer and use them to create a slide show. Be sure to alter the speed at which they play to create movement.



GEORGES MÉLIÈS
France, 1861–1938

Le Voyage dans la lune (A Trip to the Moon), 1902

Photograph of a frame from *A Trip to the Moon*, depicting a rocket embedded in face of the moon.
From the collections of the Margaret Herrick Library



GEORGES MÉLIÈS
France, 1861–1938

Le Voyage dans la lune (A Trip to the Moon), 1902

Photograph of a frame from *A Trip to the Moon*, depicting a fight between voyagers and extraterrestrials.
From the collections of the Margaret Herrick Library

The Illusion of Space

THE PLOT OF *THE CABINET OF DR. CALIGARI* IS A complicated tale within a tale. It begins with a flashback in which a man named Francis recalls a visit to a carnival with his young friend Alan. At the carnival, Francis and Alan encounter the magician Dr. Caligari and the sleepwalker Cesare, who predicts that Alan will be killed that night. The murder does take place, seemingly at the hands of Cesare. Francis comes to suspect Caligari of masterminding the attacks, so he visits an insane asylum to inquire about a mysterious series of homicides. There he learns that Caligari is actually the facility's director. As the film returns to the story's present day, it is revealed that Francis and Cesare are inmates, and that the flashback was one of Francis's paranoid delusions. In the final plot twist, Dr. Caligari announces his intention to cure the troubled Francis.

The elaborate architectural settings by designer Hermann Warm are a hallmark of the aesthetic of *Dr. Caligari* and of German Expressionist film (a branch of the larger Expressionist movement that responded to post-World War I sentiment and is characterized by experimentation with new ideas and artistic styles). Warm stated that "films must be drawings brought to life," and he created the world of Dr. Caligari by constructing the sets entirely in studios.¹

He collaborated with two painters to craft illusions of disorienting *space* and perspective through the use of jagged forms, misshapen windows, and illogical shadows. The off-kilter composition evokes the altered psychological state depicted in the film's narrative. The use of iris framing adds to this. In iris framing, scenes are viewed through a triangular or circular frame. The effect mimics the voyeuristic act of peeking in on a scene unfolding before you.

1 Siegfried Kracauer, *Theory of Film* (Princeton University Press, 1997), p. 39.

Frame of Mood:

Print one of the images that you photographed in your stop trick flick. Think about the mood that the image evokes, such as cheerful, anxious, or excited. How would you alter or frame the image to enhance this mood? Add angular, geometric collage elements to the composition to elicit the bizarre (influenced by the *Dr. Caligari* aesthetic). Adding circular, organic lines and shapes might convey comfort or whimsy. When finished, choose a shape that appears prominently in your photographic collage, then cut the shape out of a black sheet of construction paper. Adhere the construction paper to your artwork to frame your image.



(GERMAN) ARTIST UNKNOWN

Untitled (Cesare [Conrad Veidt] Carrying Jane [Lil Dagover] across Rooftops), 1919

Set photograph from the film *Das Cabinet des Dr. Caligari* (*The Cabinet of Dr. Caligari*)

Gelatin silver print

The Robert Gore Rifkind Center for German Expressionist Studies (M.82.287.1e) LACMA

The Illusion of Sound

GERMAN EXPRESSIONIST CINEMA IS MASTERFULLY realized in another iconic film of the 1920s, *Metropolis*, set in a glittering city in the year 2026. The film's protagonist, Freder, is the son of a wealthy businessman who, along with other bourgeois intellectuals, rules from the city's skyscrapers while workers dwell and labor belowground on machines that need their constant attention. Freder meets an angelic young woman named Maria, who opens his eyes to society's oppressive inequities. He follows Maria into the subterranean city, where he gets wind of a strange plot: a mad scientist, Rotwang, is building a robot in the image of Maria. The robot drives the worker-citizens of Metropolis to madness, causing floods and destruction. Eventually, Freder and Rotwang confront each other on the roof of a cathedral. Freder triumphs over his adversary and declares a truce between the ruling thinkers and the toiling workers.

The set for *Metropolis*, designed by Erich Kettelhut, was inspired by director Fritz Lang's first glimpse of the New York City skyline. Monumental scale was achieved by means of an ingenious special effect called the Schüfftan process, for which cinematographer Eugen Schüfftan placed a mirror at a 45-degree angle between the camera and miniature models of skyscrapers. To create the illusion that the actors are interacting with a life-size set, he staged the actor in a precise location and looked at his/her reflection on the mirror. He then traced the

actor's silhouette, cut the shape from the mirror, and then replaced the outline's shape with a regular piece of glass. Lang filmed only the actors, keeping the models and mirrors in place, thus capturing the actors and action against the world's first green screen.

Expressionist acting techniques, such as exaggerated gestures, enliven the space and create the illusion of *sound*. Screaming, wailing, crying, although silent, add to the film's "chaotic" narrative and aesthetic. There are long, diagonal shots of tunnels from which leaders call followers forward from a distance, and scenes of a crowd running up an endless flight of stairs while droves of people squeeze into an escape elevator. Though silent, the result is the perceived sound of panic.

Mirror, Mirror:

With a partner, experiment with the properties of mirrors using a flashlight and two toilet-paper cylinders. Position one of the cylinders at 45 degrees against the mirror, then ask your partner to do the same. Place your circles together, holding at an angle to create a V shape. Next, shine a flashlight through one of the cylinders. Where did the light travel? What shape did it take? Try covering the cylinder opening with colored cellophane. What happens when you and your partner use different colors? Like professional cinematographers, experiment with sizes, shapes, and colors.



HORST VON HARBOU
Germany, 1879–1953

Untitled (People Rushing up the Steps toward the Chosen One), 1926
Film still from Fritz Lang's *Metropolis*

Gelatin silver print

Purchased with funds provided by the Robert Gore Rifkind Foundation,
Beverly Hills, CA (M.2008.70.2) LACMA



HORST VON HARBOU
Germany, 1879–1953

Untitled (Crowd in Worker's City), 1926
Film still from Fritz Lang's *Metropolis*

Gelatin silver print

Purchased with funds provided by the Robert Gore Rifkind Foundation,
Beverly Hills, CA (M.2008.70.3) LACMA

The Illusion of Time

STANLEY KUBRICK'S EPIC *2001: A SPACE ODYSSEY* IS a work of compositional virtuosity: any one of the film's still images reveals an entire world tailored into a single frame.¹ The ambiguous story traces human evolution and a series of encounters with a peculiar black monolith. Sometime in the distant past, the monolith was buried under the lunar surface, and in the year 2001, a space voyage to Jupiter traces the monolith's electric signal or current. Two astronauts embark on the journey to reach its signal aided (or obstructed) by a "thinking" and "talking" computer.

Kubrick's manipulation of the passage of *time* in the film creates a sensory experience. The pace of the film is slow. Short spurts of dialogue only occasionally interrupt long expanses of slow motion and ambient sound. The smallest acts are prolonged, so as to seem revolutionary. Walking happens at a snail's pace to mimic zero gravity. Floating objects (including an ape throwing a bone in the air, a shuttle traveling through space, and a pen afloat in zero gravity) constitute a recurring motif. The distortion of time is expertly realized in the penultimate scene, in which one of the astronauts risks his life to save his comrade in danger. Ironically, a painstakingly slow pace shapes the most heightened sense of suspense.

1 Elvis Mitchell, "The Art and Myth of Stanley Kubrick," in *LACMA Insider* (Los Angeles: LACMA, Fall 2012), p. 15.

Time Warp:

Film a short scene, focused on one act in motion – such as walking, running, jumping, or skipping – using a web-enabled smartphone. Be sure to choose a location with plenty of natural light, use a steady hand when filming, and try multiple takes to produce enough source footage for editing. When finished, download a free editing app (Android users, try VidTrimPro or Clesh Video Editor) onto the phone (iPhone users can choose from iMove or ReelDirector). Import the short film into the app, and either speed up or slow down the play rate to alter the pace of motion.



2001: A Space Odyssey, directed by Stanley Kubrick (1965–68; GB/United States)
 The astronaut Bowman (Keir Dullea) in the storage loft of the computer HAL
 © Warner Bros. Entertainment Inc. (pf_kubrick_2001_03)



2001: A Space Odyssey, directed by Stanley Kubrick (1965–68; GB/United States)
 Scene photo
 © Warner Bros. Entertainment Inc. (pf_kubrick_2001_04)

The Illusion of Light

IN STANLEY KUBRICK'S PERIOD PIECE *BARRY LYNDON* (1975), a young farm boy longs for recognition in his small eighteenth-century Irish village. After pursuing the love of his cousin and learning of her intent to marry a British captain, Barry ends up enrolling in the British Army to fight in the Seven Years War. An opportunist at heart, he steals the identity of an officer in order to desert the army, but is caught by the Prussian Army and forced to join. Working his way up the ranks, Lyndon saves the life of his captain, which affords him the position of a spy. Tasked with generating intelligence on an Irish gambler, the Chevalier de Balibari, he forges an alliance with the Chevalier to become his associate. Through his dealings fulfilling the vices of the elite, Lyndon meets and marries the esteemed Lady Lyndon and indulges himself in lavish consumption and entertainment. His obsession to align himself with nobility steers his fall from grace.

Barry Lyndon offers a stunning arrangement of tableaux copied from eighteenth-century paintings of British landscapes and aristocratic scenes. Shot entirely on location, the production required technical innovation in addition to traditional techniques to create the illusion of a world devoid of artificial *light*. "For the day interior scenes, we used either the real daylight from the windows, or simulated daylight by banking [placing] lights outside the window and diffusing them with tracing paper taped on the glass," Kubrick noted.¹

The majority of the night scenes were shot only with candlelight, so Kubrick and his team adapted NASA technology (developed to record Apollo moon landings in darkness) to create a camera and lens equipped to film in low light. In many scenes, dozens of candelabrum are placed in the foreground, middle ground, and background to illuminate the expansive, gold-gilt interiors of the eighteenth-century architecture. In intimate card-playing scenes, the glow of the flames bathes the actors in lush, sensuous light. The illusion of natural light is the perfect, atmospheric finish to *Barry Lyndon's* spectacular composition.

1 Michel Ciment, "Kubrick: The Definitive Edition," *The Stanley Kubrick Archives* (Los Angeles: Taschen, 1976), p. 443.

Final Saga:

Combine everything you have learned about composition, perspective, special effects, framing, light, and timing in a major motion picture. Storyboard, stage, and film using your web-enabled smartphone. Be sure to fill the frame of the camera with the action and characters of your story, and try filming from different angles and perspectives. Edit using your editing app and the tools at your fingertips to alter and manipulate individual frames and the overall film. Save the film file, email or upload it onto a computer, and then share with your peers in a classroom premiere.



Barry Lyndon, directed by Stanley Kubrick (1973–75; GB/United States)
 Barry Lyndon (Ryan O'Neal) and the Chevalier de Balibari (Patrick Magee) at the roulette table
 © Warner Bros. Entertainment Inc. (pf_kubrick_bl_01)




Barry Lyndon, directed by Stanley Kubrick (1973–75; GB/United States)
 Lady Lyndon (Marisa Berenson) plays the piano with her son, Bryan Patrick Lyndon (David Morley),
 with tutor Reverend Samuel Runt (Murray Melvin), in the background
 © Warner Bros. Entertainment Inc. (pf_kubrick_bl_01)

Glossary

animation	the rapid display of sequential imagery to create the illusion of movement	iris framing	a technique used to show an image in only one area of the frame, usually as a way of focusing attention on a specific part of the scene without reducing the scene in size
close-up shot	tight framing of a person or an object to display detail; an object as it appears in the foreground of a composition	long shot	framing of a person or objects in relation to its or their surroundings; an object as it appears in the background of a composition
composition	the placement or arrangement of visual elements in an image	media literacy	the capacity to utilize technology, and to decipher and evaluate broadcasts of information and images
Expressionism	a Modernist movement in art characterized by the distortion of subjective perspective for emotional effect; the expression of emotional experience rather than physical reality	medium	a mode of artistic expression
film	the repetition of sequential images at twenty-four frames per second	medium shot	framing of a person or object from a medium distance; an object as it appears in the middle ground of a composition
frame	a single still image from a motion picture	motion picture	<i>see "film"</i>
German Expressionism	a branch of the larger movement that responded to post-World War I sentiment, characterized by experimentation with new ideas and artistic styles	perspective	the way in which objects appear to the eye based on their spatial attributes
green screen	a postproduction technique for layering two images on top of each other, which can be used to add or remove a background from the subject of a film	Schüfftan process	the visual effect of an object or person appearing to exist within, or interact with, the landscape of a miniature model through the use of mirrors and camera angles
illusion	something that deceives by producing a false or misleading impression of reality	stop trick	the illusion that objects or people appear, disappear, or morph into other objects on film

These curriculum materials were prepared by Jennifer Reid, Mary Lenihan, and Holly Gillette and designed by Jenifer Shell. Essay text was adapted from *Masterworks of Expressionist Cinema: Caligari and Metropolis* and *Stanley Kubrick* exhibition didactics. © 2013 Museum Associates/LACMA. All rights reserved.

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