

SOUND

ESSENTIAL CONCEPTS

What is sound in cinema?

- Flexible & wide ranging technique
- It shapes our understanding of a film
- It directs our attention

Consider that sound ...

- Is not simply an accompaniment to the real basis of cinema, the moving images
- Whether noticed or not, sound is a powerful film technique
- It can actively shape how we perceive & interpret the image
- It gives a new value to silence

- With the introduction of sound cinema, the infinity of visual possibilities was joined by the infinity of acoustic events
- It has as many creative possibilities as editing
- It is not enough to name & classify. It is important to examine how the types of sound *function* in the total film

Three types of sound in film

- Speech
- Music
- Sound effects

Three aspects of film sound

I. Fundamentals of sound

- Perceptual properties
- Selection, alteration, combination

II. Dimensions of film sound

- Rhythm
- Fidelity
- Space
- Time

III. Functions of film sound

Fundamentals of film sound

1. Perceptual properties

- Several properties are familiar from everyday experience: loudness, pitch, timbre
- Loudness: results from vibrations in the air. Film sound constantly manipulates volume. Also related to perceived distance
- Pitch: the perceived “highness” or “lowness” of the sound – e.g., violins played at extraordinarily high pitch in the shower scene of *Psycho* – shrill effect

1. Perceptual properties - cont.

- Timbre: tone quality, or “color”. It describes the “feel” of a sound – e.g., a nasal voice, a mellow tone

In everyday life, the recognition of a familiar sound is largely a matter of various aspects of timbre

Loudness, pitch & timbre interact to define the overall sonic texture of a film

2. Selection, alteration & combination

- Speech, music & sound effects are selected & combined for specific functions within films
- The soundtrack demands as much choice & control as does the visual track
- Sometimes the soundtrack is conceived before the image track – e.g. studio-animated cartoons, so that figures may be synchronized with sound, frame by frame. Bugs Bunny & Daffy Duck cartoons

2. Selection, alteration, combination - cont

- Sound effects are usually central to action sequences
- Music can dominate dance scenes, transition sequences, or emotion-laden moments without dialogue
- In creating a soundtrack, the filmmaker must select sounds that will fulfill a particular
- Like the camera lens, the microphone does not automatically filter out what is distracting

2. Selection, alteration, combination – cont

- Film sound is normally reprocessed to yield exactly the qualities desired
- A “dry recording” of the sound in a fairly nonreflective space will be manipulated electronically to yield the desired effect – e.g., the voice of someone on the phone is treated with filters to make it more tiny & muffled
- The rhythm, melody, harmony & instrumentation of the music can strongly affect the viewer’s emotional reactions

II. Dimensions of film sound

The way in which the sounds relate to other film elements gives them several other dimensions:

- Rhythm
- Fidelity
- Space
- Time

These categories reveal that sound in film offers a great many creative possibilities to the filmmaker

II. Dimensions of film sound

1. Rhythm

- Rhythm involves a *beat*, or pulse, a *pace*, or tempo, and a *pattern of accents*, or stronger & weaker beats
- All these features are most recognizable in film music, since beat, tempo & accent are basic compositional features

1. Rhythm - cont

- The most common tendency is for the filmmaker to match visual & sonic rhythms to each other
- In the 1930s animated films of Walt Disney, the characters often move in exact synchronization with the music, even when they are not dancing

1. Rhythm - cont

Some interesting example of rhythm in film:

The Band Concert (1935) Disney cartoon

Alexander Nevsky (1938) dir. Sergei Eisenstein

The Last of the Mohicans (1992) dir. Michael Mann

Baby Driver (2017) dir. Edgar Wright

If Beale Street Could Talk (2018)dir. Barry Jenkins

II. Dimensions of film sound

2. Fidelity

- Fidelity refers to the extent to which the sound is faithful to the source as we conceive it - e.g., a bark and a dog
- When we become aware that a sound is unfaithful to its source, that awareness is usually used for comic effect - e.g. the films of French comedian Jacques Tati

II. Dimensions of sound

3. Sound in space

- Sound has a spatial dimension because it comes from a source
- Diegetic sound: its source is in the story world – e.g., sounds made by objects in the story, words spoken by characters, music coming from instruments played on screen, or heard from devices (radio, television, computer, etc)

3. Non-diegetic sound

- Non-diegetic sound: comes from a source outside the story world. Music added to enhance the film's action is the most common type
- Non-diegetic means “not from the world of the story”. For example, a piece of music used to enhance emotions or suspense, in the sound track, not as part of what is happening on the screen

3. Sound in space - cont

- Diegetic sound can be either onscreen or offscreen, depending on whether its source is within the frame or outside the frame
- *American Graffiti* (1973) plays heavily on the distinction between diegetic and no-diegetic music
- The use of sound to enter a character's mind is so common that we need to distinguish between internal & external diegetic sound

3. Sound in space - cont

Two interesting cases:

- The soliloquies of Hamlet, in the Laurence Olivier 1948 version: internal diegetic sound – we “hear” the thoughts of Hamlet, coming from “inside” his mind
- *Wings of Desire* (1987): the angels can access the internal diegetic sound of the inhabitants of Berlin

3. Sound in space - summary

Sound may be

diegetic – in the story space

non-diegetic – outside the story space

If it is diegetic, it can be

onscreen

offscreen

And internal (“subjective”)

external (“objective”)

3. Sound in space - examples

- *Stagecoach* (1939) dir. John Ford
- *The Magnificent Ambersons* (1942) dir. Orson Welles
- *Who's Minding the Store?* (1963) dir. Frank Tashlin
- *Star Wars* (1977) dir. George Lucas
- *Apocalypse Now* (1979) dir. Francis Coppola
- *Unstoppable* (2010) dir. Tony Scott
- *Dunkirk* (2017) dir. Christopher Nolan

II. Dimensions of sound

4. Time

- Sound also permits the filmmaker to represent time in various ways
- This is because the time represented on the sound track may or may not be the same as that represented in the image
- Synchronous sound – matching sound with image in projection

4. Sound in time

With respect to the image on screen, sound can be:

1. Simultaneous in story with image

The most common temporal relation which sound has in fiction films. Noise, music, or speech that comes from the space of the story occurs at the same time as the image.

It can be external (objective) or internal (subjective)

2. Earlier in the story than image

3. Later in story than image

4. Sound in time - Sonic flashback

It is possible for the sound we hear to occur earlier or later in the story than the events which we see in the image. It is non-simultaneous with the action on the screen

The most common example is the sonic flashback

In a sonic flashback, we see a character onscreen in the present but hear another character's voice from an earlier scene This sonic flashback can have an external or internal source

4. Sound in time – Non-diegetic sound

Most non-diegetic sound has no relevant temporal relationship to the story

But occasionally the filmmaker may use non-diegetic sound that has a defined temporal relationship to the story, e.g., Orson Welles' narration in *The Magnificent Ambersons* (1942) speaks of the action as having happened in a long-vanished era of American history

4. Sound in time - cont

Sound bridge – a transitional device by which the sound from the next scene to begin while the images of the last one are still on the screen

In *M* (1931, Fritz Lang), the inspector speaks of the pencil in the windowsill and the film cuts to the windowsill. The burglar speaks of the abandoned factory, and the film cuts to the factory

II. Dimensions of sound

- By becoming aware of the rich range of possibilities, we are less likely to take a film's sound track for granted, & are more likely to notice unusual sound manipulations – e.g., *The Conversation* (1974) dir. Francis Coppola
- We quickly learn to distinguish between internal & external, diegetic & non-diegetic, simultaneous & non-simultaneous

Use of sound in film - examples

The Jazz Singer (1927) dir. Alan Crosland

Love Me Tonight (1932) dir. Rouben Mamoulian

Modern Times (1936) dir. Charlie Chaplin

Woman of the Year (1942) dir. George Stevens

The Pirate (1948) dir. Vincente Minelli

Fantasia (1940) Disney studios

Singin' in the Rain (1952) dir. Stanley Donen

Les vacances de M. Hulot (1953)

Three Colors: Blue (1993)

The Thin Red Line (1998) dir. Terrence Malick

Road to Perdition (2002) dir. Sam Mendes

Jobs in sound for films

- Sound designer
- Boom operator
- Field recordist
- Sound editor
- Foley artist
- Film composer
- Sound mixer
- Scoring mixer
- Re-recording mixer
- Engineer

Source

This outline follows the concepts on editing developed by David Bordwell & Kristin Thompson in their *Film Art, An Introduction* (2001)

The list of film examples has been prepared by
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