

# Sound and Fixed Media

Lecture 01  
Audio-Vision, Film Sound Analysis



F. Lyle Goldman and Max Fleischer Sound Film, 1929

<http://www.archive.org/details/FindingH1929>

What are fixed media?

1952 Invictus - 17" B&W (Brazil)  
Model 17-22M

*TVhistory.TV*



**\*\* First Brazilian Television Set \*\***

For the purposes of this course, we can think of fixed media as structure that has been locked.

Specifically in our case, this media requires sound to provide a further dimension

Sound can add weight, depth, time, space, narrative...

# what is fixed?

Frame Rate - 24fps with sound. 18fps without  
sound (35mm film)

Different rates for video – 25, 24, 29.97, 30.

Scan rates PAL, NTSC

Compression algorithms...

# what is fixed?

Sound System – mono, stereo,  
quad, 5.1 7.1 10.2 etc.

# what is fixed?

Visuals fixed, sound added later

# what is fixed?

Narrative assumptions are fixed / defaulted, based on preconceived norms and notions. These are to some extent unavoidable but are also constraints to work with and against.

For example, a story is fixed – although open to interpretation and re-interpretation during production, editing and finally viewing, when the story begins to live in the world and resonate with different audiences.

# what is fixed?

Narratives are adapted, from book to screen.

There is even a journal that explore adaptation studies:

<http://www.adaptation.uk.com/journal-of-adaptation-studies/>

# what is fixed?

Audience is fixed – seated  
in a stable environment.  
Things are reproducible  
“exactly” in different  
locations

# what is fixed?

It is not “live” – film always the same ...?[except director’s cut, quality of reproduction equipment varies from age of cinema to cinema and video to DVD/Cinema].

Surround sound history – clear article

<http://www.informit.com/articles/article.asp?p=337317>

Standard film frames rates:

<http://www.highlanderfilm.com/new1757.html>

NOPE, best to go here now:

[http://en.wikipedia.org/wiki/Frame\\_rate](http://en.wikipedia.org/wiki/Frame_rate)

Interesting and useful information discussing differences between film and video materials;

<http://www.digieffects.com/frames/>

[howtotransfervideotofilm.html](http://www.digieffects.com/frames/howtotransfervideotofilm.html) interesting to see what's happened to this URL:

<http://www.digieffects.com/blogs/tutorials/>

Information about film formats including HDTV.

<http://www.henninger.com/library/hdtvfilm/>

NOT ANY MORE, now it's this:

<https://www.techradar.com/uk/news/television/ultra-hd-everything-you-need-to-know-about-4k-tv-1258884>

Physically we experience  
sound through movement;  
this is perhaps at odds with  
notions of fixity and being  
fixed

Psychologically, we experience  
sound in whatever way we are  
told to

This explains why sound is so alluring  
to the fixed media (such as sculpture,  
architecture, TV and Film)

Where were these rain sounds recorded?

What is film?



## Main Film Genres

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ **Written by Tim Dirks**

### Genre Sub-Sections

[Film Genres Overview](#) | [Main Film Genres](#) | [Film Sub-Genres](#) | [Film Sub-Genres Types \(and Hybrids\)](#) | [Other Major Film Categories](#)  
[Best Pictures - Genre Biases](#) | [Summary of Top Films by Genre](#) | [Top 100 Films by Genre](#) | [AFI's Top 10 Film Genres](#)

● **Main Film Genres:** Listed below are some of the most common and identifiable film genre categories, with descriptions of each type or category. If you're interested in the chronological history of film [by decade](#) - visit the section on [Film History - by Decade](#) or the multi-part section on [Milestones in Film History](#).

## Main Film Genres

### Genre Types

(represented by icons)

### Genre Descriptions

**Select** an icon or film genre category below, read about the development and history of the genre, and view chronological lists of selecte representative greatest films for each one (with links to detailed descriptions of individual films).

# Commercial Enterprise...

The screenshot displays the iTunes website interface. At the top, a navigation bar includes the Apple logo and links for Store, Mac, iPhone, Watch, iPad, iPod, and iTunes. Below this, the main heading is "iTunes Movie Trailers", with "Showtimes" and "Trailers on" as secondary options. Two large featured trailers are shown side-by-side. The left trailer is for "All the Wilderness", featuring a forest background and listing actors Kodi Smit-McPhee, Virginia Madsen, Isabelle Fuhrman, Evan Ross, and Danny Devito. It includes a quote: "STUNNINGLY BEAUTIFUL... A REMARKABLE DIRECTORIAL DEBUT" and states it is available in theaters and on iTunes from 2/20. The right trailer is for "Song One", featuring Anne Hathaway and Johnny Flynn, with the text "EXCLUSIVE TRAILER IN THEATERS AND ON iTUNES 1/23". Below the featured trailers is a filter bar with options: "Just Added", "Most Popular", "Exclusive", "Genres", and "Studios". A search bar is also present. At the bottom, a horizontal scroll of smaller movie posters is visible, including "Song One", "Veronika Decides to Die", "1971", "All the Wilderness", and a partially visible poster for "Laura B". Navigation arrows for the scroll are labeled "Previous", "1", "2", "3", and "Next".

# Propaganda

INTERNET ARCHIVE

Web **Video** Texts Audio Software About Account TVNews OpenLibrary

Home Animation & Cartoons | Arts & Music | Community Video | Computers & Technology | Cultural & Academic Films | Ephemeral Films | News & Public Affairs | Prelinger Archives | Spirituality & Religion | Sports Videos | Television | Videogame Videos | Vlogs | Youth M


Search:  Movies  Advanced Anonymous User (login or join us)

[Moving Image Archive](#) > [Movies](#) > [Silent Films](#) > **Bronenosets Potyomkin (Battleship Potemkin)**


**View movie**

Командир Голиков

Истекший кровью  
Вакуличун  
спасается от озверелого  
Гиляровского  
*The frenzied officer  
pursued*



**Bronenosets Potyomkin (Battleship Potemkin) Sergei M. Eisenstein, Grigori Aleks**  
**(1925)**



Матросы Матюшенко  
и Вакуличук

Battleship Potemkin

# Propaganda



## an inconvenient truth

The Official Website of the Award-Winning Film

NEWS

AL GORE'S CLIMATE UPDATE

TAKE ACTION

THE FILM

THE BOOK

### 5 Things You Can Do Now

- #1 Join the Climate Reality Project, a global community of nearly 5 million people demanding a solution now.
- #2 Ask your employer to sign the Climate Declaration.
- #3 Support companies who are doing good things on climate change.
- #4 Learn what your personal carbon footprint is.
- #5 Find out what small changes you can make to have an impact.

Balances regularly changing technological innovation and format standardisation with world wide reach



# Artistic Expression?

## ORSON WELLES' MEMO ON



**By Lawrence French**

In 1998, after 40 years, the world finally got to see Orson Welles *TOUCH OF EVIL* as the director intended it. And unlike some other Welles films that have been restored, rediscovered or re-edited, (i.e. *DON QUIXOTE*, *OTHELLO* and *IT'S ALL TRUE*), the changes in *TOUCH OF EVIL* were carried out with a scrupulous attention to detail, that is truly in the spirit of Orson Welles. Of course, no one can say for certain, just how Welles would have edited his movie, but as can be seen in reading Welles' long memo of detailed editing instructions, producer Rick Schmidlin and editor Walter Murch have come up with the closest approximation that we're ever likely to get.

Why *TOUCH OF EVIL* needed to be re-edited in the first place is a rather complex tale, that requires some background. In 1957, Universal took the film out of Welles hands, after he had spent about three months in the cutting room. As Welles was the first to admit, he worked very slowly while editing. "I could work forever on the editing of a film," Welles told *Cahiers du Cinema* in 1958. "I don't know why it takes me so much time, but that has the effect of arousing the ire of the producers, who then take the film out of my hands."

After completing a rough cut, in July of 1957, Welles left the editing of the film to Universal staff editor Aaron Stell. That fall, when Welles returned and was shown the results of the studio's re-cut, he wrote a heart-felt 58 page letter to Universal's head of production, Edward Muhl. Unfortunately, many of Welles suggested changes went unheeded, and *TOUCH OF EVIL* was eventually released in February, 1958 in an aborted version that ran only 93 minutes. The 93 minute version was all that was available for 18 years-until 1976, when Universal put a longer 108 minute version they accidentally uncovered in their archives into circulation.

Of course, back in 1976, Welles was still alive, and in retrospect, it seems rather unfortunate that Universal never bothered to consult him about making changes to *TOUCH OF EVIL*. However, at the time, the video and laserdisc market had yet to emerge, and the idea of a director's cut was virtually unheard of. Although, when Universal released the longer version of *TOUCH OF EVIL* on video, they mistakenly called it a "complete uncut and restored version." This, however was certainly not the case, because while the long version had 15 minutes of additional

# International language of the image?



Boris Karloff,  
Frankenstein  
Universal Pictures 1931

Each nation has a distinctly different approach to film and its language. This is based on variation in social, technological, and financial needs and capabilities. It is also strongly linked with ideas of national identity. A film is how the world sees you.

A finished film represents;

- Bending of individual talents towards a single vision
- Synthesis of multi-disciplinary and artisan skills
- Development of multiple resources and solutions to solve problems
- The ruthless cutting, trimming and removal of all unnecessary work
  - The film system requires planning, professionalism, patience and money (lots of it).

# Film and Sound

# Three stages in film production

Pre-production

Shooting (production)

Post Production

Where sound traditionally begins to feature heavily in the process and the film becomes fixed through editing, mixing, colour balancing and the grafting of non-diegetic elements onto the film (such as music).

# Layers

Sound is generally conceived and produced in terms of layers

Employment / jobs,  
roles are given to these layers too;

<https://theproaudiofiles.com/roles-in-audio-post-production/>

# film sound analysis terms

References; (Altman 1992; Chion, Gorbman et al. 1994)

Altman, R. (1992). Sound theory, sound practice. New York, Routledge.

Chion, M., C. Gorbman, et al. (1994). Audio-vision: sound on screen. New York, Columbia University Press.

“The Sound Hermeneutic”

Rick Altman

Basically means the interpretation of  
the image through sound

“The sound asks the question *where?*  
And the image responds *here.*”

Rick Altman

"sound does not actually emanate from the objects seen on the screen, but from a speaker, placed most commonly behind or above the screen. The spectator's imagination allows the objects seen on the screen to appear to produce the sounds, and one object's sound is not often confused with that of another." Page 236, *And then there was sound*, Andrea Truppin.

Later she quotes Chion "If one sees a character go to the right, one will therefore hear the sound move to the right....it is on this that the realism of cinema rests, and without it, it would be impossible to believe in these sounds and these voices which do not move within the width of the screen, while the objects and characters that produce them move about constantly" Andrea Truppin's translation of Chion in *Les Trois Frontières*.  
Page 236

"In the case of off screen sound, our tendency to attach a sound to an emitting source in the interest of coherence allows us to accept the existence of that which we cannot see... We imagine not only the reality of the world seen on the screen, but that of a larger world stretching on indefinitely beyond it." Page 236

**Diegetic Sound**

sound that is presented as coming from a source. It can be on or off screen but it belongs inside the film world.

**Non-Diegetic sound**

sound that does not belong in the film's world – sound such as background music, narration and extra sound effects.

**Point-of-audition sound**

Sound as it might be heard by a character in the film. Altman (1992)

**Sound Advance**

introducing a sound before the image it is associated with. Altman (1992)

**Sound Balance**

The extent to which have been balanced in relation to their position in the scene. Altman (1992)

**Sound hermeneutic**

AUDIO - Where does this sound come from?  
....VISUAL...ah, here it is. The hermeneutic approach is one of interpreting the image through sound. Altman (1992)

**Semi-sync**

Sound that is associated with/  
synchronised with actions on screen of  
secondary importance. Altman (1992)

<b>Soundscape</b>	Sounds commonly heard in a given period or location. Altman (1992)
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**Spatial Signature**

The spatial circumstances of a sound's production. Altman (1992)

**Room tone**

The sonic signature of rooms where film is shot is recorded and mixed in at post production to help re-create the feeling of the space.

**Establishing sound**

Altman (1992)- From the beginning of a scene, sound that establishes location/surroundings. Removed or reduced during dialogue

## **Worldizing**

Term coined by Walter Murch whereby sound is re-recorded in a real space to give it the genuine sonic signature of that space.

**Anempathetic sound**

Usually digetic music. Indifferent to the mood of the action (Chion)

**Temporalisation**

The influence of sound on the perception of time on the image (Chion)

**Empathetic Sound**

Sound or Music whose mood matches that of the actions (Chion)

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<b>Sound Advance</b>	introducing a sound before the image it is associated with. Altman (1992)
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# Apocalypse Now

Redux

Francis Ford Coppola, 1979

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<b>Anempathetic sound</b>	Usually diegetic music. Indifferent to the mood of the action (Chion)

# The Audio Visual Contract

basically the deal a viewer/  
listener makes with the material  
that the sounds we hear were  
made by the things we see

if we couldn't sign this contract,  
most film would be too exhausting  
to watch

Listen interpretively

# Caché

Caché/Hidden  
Michael Haneke 2005

Audio visual  
dissonance/  
counterpoint

# Surrounded

a film by Martine Huvenne, Belgium (2010)

*“There is no  
soundtrack”*

Chion, M., C. Gorbman, et al. (1994). Audio-vision: sound on screen. New York, Columbia University Press.

# Mirror

Tarkovsky 1974

## *Conceptual Resonance*

The images that the sound make us see change the sound we hear and this new sound changes what we see.

Chion, M., C. Gorbman, et al. (1994). Audio-vision: sound on screen. New York, Columbia University Press.

# Film as memory

“Tarkovsky structured *Mirror* through fragmented plot elements with an apparent absence of causality, and in so doing comes strikingly close to the real act of remembering.”

<https://theartsofslowcinema.com/2017/12/19/the-filmind-in-andrei-tarkovskys-zerkalo/>

```
mpv LostHighway.mkv --start=+26:46 --length=+03:11 --aid=2 --sid=no  
--fs --screen=0
```

```
mpv apocalypseNow_coppola_1975.mkv --start=+09:00 --length=  
+02:00 --aid=2 --sid=no --fs --screen=0
```

```
mpv Hidden_Haneke_2005.mkv --start=+00:10 --length=+02:45 --fs —  
screen=0
```

```
mpv MartineHunvene-Film-Surrounded.mov --start=+01:00 --length=  
+01:10 --fs --screen=0
```

```
mpv Mirror_Tarkovsky_1974.mkv --start=+18:50 --length=+01:00 --  
vid=no --aid=1 --sid=no --fs --screen=0
```

```
mpv Mirror_Tarkovsky_1974.mkv --start=+18:50 --length=+01:00 --  
vid=1 --aid=1 --sid=1 --fs --screen=0
```

## References

By comparison with much of the content on the rest of the course, film sound is very well documented and discussed. The last 30 years has seen a ballooning of academic and practitioner literature directly focused on the analysis and interpretation of film sound.

### Essential email list subscriptions

Sound Article List

<http://groups.yahoo.com/group/sound-article-list/>

Sound Design list

[http://groups.yahoo.com/group/sound\\_design/](http://groups.yahoo.com/group/sound_design/)

It's all moved to Facebook now.

### Essential reading:

Link to school of sound website with an extensive reading list edited by Miguel Mera,  
Royal College of Music, London

<http://www.schoolofsound.co.uk/content/homework.htm>

[1-5]

1. Weis, E. and J. Belton, *Film sound: theory and practice*. 1985, New York: Columbia University Press. xii, 462 p.
2. Sonnenschein, D., *Sound design: the expressive power of music, voice, and sound effects in cinema*. 2001, Studio City, CA: Michael Wiese Productions. xxiii, 245 p.
3. Sider, L., D. Freeman, and J. Sider, *Soundscape: the school of sound lectures 1998-2001*. 2003, London: Wallflower Press. vii, 242 p.
4. Chion, M., C. Gorbman, and W. Murch, *Audio-vision: sound on screen*. 1994, New York: Columbia University Press. xxvii, 239 p.
5. Murch, W., *In the blink of an eye*. 2nd ed. 2001, Los Angeles: Silman-James Press.

### Essential websites

<http://www.filmsound.org>

Follow all links from here to useful, interesting places.

Conference:

School of Sound

<http://www.schoolofsound.org>

Internet movie database

<http://www.imdb.com>

The Archive – free/open source videos

<http://www.thearchive.org>