CHAPTER 10
SOUND DESIGN

Digital Audio Production [IT3038PA]
NITEC Digital Audio & Video Production

Institute of Technical Education
College West
Introduction – List down what you hear 😊
Lesson Objectives

By the end of the chapter, students should be able to:

• Explain the characteristics of the different sound elements

• Explain the appropriate means of acquiring sound elements to produce a sound track for TV commercial or short film
10.1. Sound Elements in a Soundtrack
10.1. Sound Elements in a Soundtrack

• Voice
• Music
• Effects
• Ambience
• Foley
• Silence
• Off-Screen Sound
• Production Sound
10.1.1. Voice

• Voice refers to:
  • Dialogue
  • Narrator
  • Voice-over
  • Animated character voices

• The different tone of voice reveals the personalities of a story character and the mood of the scene.
'Voices behind The Transformers'

http://www.youtube.com/watch?v=ubNnEn8zuuc
10.1.2. Music

• Music has a magical effect on the emotions.

• It can provoke happiness, fear, anxiety, peace, tranquility, hostility, sadness and just about any feeling in the emotional pallet.

• One thing is certain – music can completely influence a visual experience.
Music Case Study: Jaws (John Williams)
Music can completely change the mood!
10.1.3. Effects

- Sound effects (SFX) or audio effects are:
  - Artificially-created sounds
  - Enhanced sounds
  - Sound processes *(effected sounds, e.g. echo)*

- They are used to emphasize artistic or other content of movies or other media (e.g. games)
10.1.4. Ambience

- In film and video, ambience usually means the background sound.
- Ambience is present in the original production recording.
- Added in sound-effects editing to provide an acoustic space around the rest of the dialogue and sound effects.

- It helps establish the scene and works editorially in picture editing.
- If ambience changes abruptly at a picture cut, an indication has also been made to the listener that the scene has also changed.
Foley is the process of recording the sounds of human action in a studio to mimic actors’ onscreen movements.

Footsteps, the rustling of clothing, the handling of object and other sounds are recorded by the Foley team while watching the picture.

Foley artists have a rare combination of skills such as amazing reflexes, great physical control, a rich imagination, and a talent for getting the best sounds out of everyday objects.
The Foley Artist

http://www.youtube.com/watch?v=UNvKhe2npMM
10.1.6. Silence

- Silence can be treated as a breathing space for the audience to digest the tension that came before.

- Or as an anticipating space to establish the coming tension.
10.1.7. Off-Screen Sound

- There are 2 categories for off-screen sound:
  - Passive off-screen sound
  - Active off-screen sound
- **Passive off-screen sound** – those that create a sense of environment and space, e.g. a *howling wolf*. They also act as a sound bridge across edit points thus making a smooth transition.
- **Active off-screen sound** – creates a situation of curiosity regarding the source of the sound itself. E.g. When a car crash sound is heard outside, people will look in that direction.
10.1.8. Production Sound

- On most live-action projects, the sound at the scene of the shoot, called the production sound, is captured by a sound recordist.
- His/her main job is to record dialogue. They might also capture some of the editorial sound effects, ambience and room tones.
- On set noise (cameras, generators, etc.) can make it difficult but the production recordings are a gold mine of material.
- During a location shoot, it is common practice for everyone to remain silent for 2 minutes so the sound recordist can capture ambience.
10.2. Creating a Sound Design & Spotlist
10.2. Creating a Sound Design & Spotlist

• The sound design process starts with a working concept.

• There should be a basic sound character in your mind – genre, time perception and spatial perception is important.

• Most projects begin with a spotting session, which is attended by the sound designer and film director.

• Spotting is the process of watching a scene, making a list of the sonic elements that are needed, and dividing them into their constituent layers.
Creating a Sound Design & Spotlist 2

Genre

Genre determines what sound effects will be used:

• A Sci-fi short film will have a series of robotic or electronic sound effects, such as the machines, computer, spaceship, spacecraft and laser gun etc.

• A Western video will have a range of sound effects from pistol shots, horses galloping, a crowded saloon, swinging a lasso, whistles and sand storms.
Creating a Sound Design & Spotlist

Time Perception

• Great movies can take hours to view yet feel short, while bad movies can be relatively short and feel as though they drag on forever.
• Time perception refers to the pace of the video – Sound can accelerate or decelerate the speed of the visual:
  • In a car chase scene, the rhythm of the music and sound effects are fast to match the tension of the action. Likewise, a sound design for a funeral scene should be solemn and at a slow pace.
  • In *The Matrix*, time slows down when ‘Neo’ avoids the coming bullets. To enhance that time changes, the sound effects are ‘slowed down’ with adding echo or reverb to match the visuals.
The Matrix (1999)

http://www.youtube.com/watch?v=KNrSNcaYiZg
Creating a Sound Design & Spotlist

• Period music, sound effects and ambience are effective means of establishing time travel through the past and the future.

• The contrast of the two separate designs will quickly facilitate our acceptance of the time-related narrative.
Period Music in ‘A Knight’s Tale’ (2001)

http://www.youtube.com/watch?v=J1_WbhGmpTw
Creating a Sound Design & Spotlist

Spatial Positioning

• With the option of surround sound today, we can throw in another consideration for sound design – spatial positioning.

• We can use sound to create a dimension through signal processing, panning and mixing. Instead of just viewing a flat screen in front, sound can create depth, width and height in the film.

• For a television commercial, spatial perception is not much of an importance as most homes would not have high quality loudspeaker systems. Instead, they are likely to be listening through the small in-built speakers of the television.
10.3. Acquiring Sound Elements While Respecting Copyright
10.3.1. What is Copyright? ©

- A copyright is the exclusive right of a given piece of work that the owner has over that piece of work.

- This entitlement allows writers/composers to prevent other people from using their work without their consent.

- Once consent is granted, the owner is entitled to a fee for the use of that work, or what is commonly known as a royalty.

- When a piece of music is written, the copyright unites the music and the lyrics (poetry that has been set to music), if any, with the composer (writer of the music) and the author of the lyrics.
10.3.2. Types of copyright

The exclusive rights of the composers/authors can be categorized into 2 main categories:

- Performing Rights
- Reproduction Rights
10.3.2.1. Performing Rights

The right to do, or to authorize other persons to do any of the following acts:

- To perform the work in public
- To broadcast the work
- To include the work in a cable programme
10.3.2.2. Reproduction Rights

Reproduction rights can be further categorized into 3 types of rights. Essentially, it is the right to do, or to authorize other persons to do any of the following acts:

• To make a record of the work, in the form of a disc, tape or any other form whatever. This is also known as Mechanical Rights.

• To record the work onto the soundtrack of a cinematograph including films intended for exhibitions in cinemas or for transmission by broadcasting or diffusion services, or of other audio visual productions. This is known as Synchronisation Rights.

• To record the work as a commercial jingle or an accompaniment to commercial advertising. This is known as Advertising Rights.
10.3.3. Original Music

• Most of the time, you love a song so much that you want to include the song into your short film or video.

• However, by doing so, you have infringed copyright laws. Even if you have sought permission from the copyright holder, you are usually required to pay a copyright fee.

• But who holds the copyrights; the lyricist, the music composer or the music company that hires the music composer and the lyricist?

• Even having found the right party to contact, it will take more paperwork and time to get the green light.

• The best solution is to hire a music composer or if you have a tight budget, create your own music.
10.3.4. Using Copyright-friendly Music and Sound

• Due to the need for easily-attainable music and sound in media projects, there are abundant sources of copyright-friendly material available online or to be purchased.

• Basically material distributed in this manner can be used without the need to obtain permission.

• However, it is advised to cite or attribute the source or creator of such material in your project.
10.3.4. Using Copyright-friendly Music and Sound

- To obtain such material online, just search for free sound effects or music loops and make sure to read the authorized uses as stated on the website.

- Most of the time, these licenses cover projects for educational purposes.

- You can also purchase a library of sound effects or music clips on CDs if you require a large accessible database to work with. Unlike commercial CDs, the audio material on these CDs is meant to be ripped and used elsewhere by the purchaser.