



Analysis of How Sound, Voice and Music in Film Disturbs the Border Between Inside and Outside

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Abstract. This article proposes the awareness of the sound effect in the digital cinema world. The complexity and art-based dimensional thoughts about sound design behind the scene are argued in the essay. The study utilized the mass reading that talks about sound and perception experiments. Despite real perceptions, sound would transmit information and create time and pace. Consequently, sound has a lot more potential in the film production area.

Keywords: Vibration · sound · sensations · perception · space · emotion · time travel · frequency

1 Introduction

The impact of sound and music vibration across cinema has been far-reaching since the era of sound film. As it has been demonstrated across various experiments, media, theatre, soundtracks, and documentaries, these utilizing and stretching implications have pervasively influenced spectators greatly. Film industry is originated in the early 19 century. Although it only has a history around 200 years, it still has a lot of potential to evolve and implement.

Sound is arguably more crucial than video quality as it supports each visual clip shaping the overall tone and mood of your film scene. Hence, for most project the planning and monitoring of the sound should be made to the equivalent priority as visual from day one of production before spend all focus on other special effects and fancy locations. The film “Gravity” received ten nominations at the 86th academy awards which including best sound editing and best sound. Other than visual effect. Its remarkable success has a significant relationship with the sound production investment.

The sound designer and supervisor was Sound 24’ S Glenn Freemantle, who has been sound supervisor on many amazing projects. He is a vocal advocate of the Dolby Atmos object-based 3D sound system [1]. The sound design is prioritized from the very start of the film production, free-mantle and the audio team did the sound design and temp mix on a 45 min ‘pre-vis’ for the film studio before the film went in to production.

Before the film involves sound, film is only about the visual experience. From 1920s to 1930s, the film revolution has an extraordinary change. Sound effect is revealed and starts to play an important role. By 1930, the silent film is almost extinct. Only after

the immersion use of sound in collaboration with the image and sound together, what is spoken or heard is actually brought into the reality.

By analyzing different soundtrack in the film “Gravity”, *Elephant Man* (1980) and *Blue Velvet* (1986), not only the idea of sound can effectively make people feel displaced, laugh, alone, or even scared as it provokes different sensation and pleasure centers that release dopamine disturbing the border between inside and outside, also the importance of sound effect to a film’s success can be explored.

2 Analysis

2.1 Sound Can Create Space and Immersing Experience that Allow the Audience to Connect Their Feelings and Emotions in the Film. Emotion Expression in Sound is One of the Most Effective Methods to Convey Feelings as Indicated in the Film, Especially When Some Sound is Organized to Be Louder Than Others

2.1.1 Sound Imitates the Reality and It Leads Audience into Another World and Altering Their Sense of Reality

Snell emphasized how to organize the soundtrack to ensure that it reflects the various circumstances of the film and the audience’s perception [2]. The film shows how audiences can relate to their real world experience through the events and sounds depicted in the film. In the film *Gravity* (2013), no sound can travel in a vacuum, and there is no sound. However, most of the scenes are set in the environment of the void. Sound is primarily the stimulation of touching and vibration through objects and the environment. The audience could hear it through the physical vibration from her space suit when Stone touches something. The vibration of the sound gives the viewer a sense of the moment and adds to the experience of post-continuity, creating the presence of that moment in the film. The sound in movies is always regarded as secondary, ignoring the information carried by the sound [3]. In terms of trust, viewers believe that what they see and hear matches the reality they are utilized for seeing and hearing nearby. In the film, the audience expects a different voice from a typical industrial field. As a result, the sound crosses the boundaries of countless events while affecting the audience’s trust.

2.1.2 The Sound Could Be Saved Stored and Transmit Things Through Time

The *Elephant Man* (1980) and *Blue Velvet* (1986) were both David Lynch’s films and their sound were both designed by Alan Splet. The asynchronous method is observed by setting two movies in a split screen [4]. The soundtrack, the vibrations of sound is creating a haze that tells us that it can be tested by time and that the vibrations can last a long time, even centuries. For example, in the movie “Gravity,” the silent attack of satellite debris, faster than a bullet, can have a shocking effect when it comes to unguarded silence. Instead of the actual explosions being heard in the movie, sound effects representing the pulse are heard, and the sound effects in this movie also have some traditional sound effects. People’s attention is grabbed by the atmosphere of the music, but not for the theme. A huge energy field is established in the collision of music

and sound effects. Also, in the movie *The Elephant Man*, people walking down the street as the movie begins, and they are met with a startling silence, creating a sense of panic and terror in the audience. In terms of how busy people are, the voices seem to be louder and mixed, indicating separate tasks on busy streets.

2.1.3 The Vibration Would Deepen the Connection Between Audience and Film as More Layers of Sounds Are Adding to the Film

The design of the *Gravity*'s soundtrack which cooperates with movement of the image is thoughtfully created, has a lot of layers. The music is developed by pitching, stretching and filtering them. The audiences' perspective is established as the combination of the scene and sound is driving spectators to connection and involvement in the film. For instance, the audience can hear the breathing and heart beating when Stone is talking. The designing sound deepens the effectiveness of conveying film's idea and atmosphere which are demonstrated by the heavy and light space between her breathing as it creates an anxious and distressed feeling for the audience to synchronize their sense and feeling to film's emotional content.

In the film, the music adopted in electronic pulse theme represents a sense of the ominous. Also the helplessness of the darkness accompanied by a wave of fear can be depicted as these electronic sound effects are built and rotated, mixed into an almost pure cacophony. Furthermore, the oppressive atmosphere between characters is emphasized through cello and orchestral music along with the imminent scene which leads the audience to recall and feel its powerfulness as well as the despair and helplessness of the people. The use of sound is one of the most influential film techniques to express feeling and convey ideas. It creates space and immersion experience which can connect audience's feelings. However, the sound in the film should not be overwhelmed and engulfed because the film is also about the combinations of different film techniques. Therefore, it should be balanced when it comes to the use of sound in the film.

2.2 Sound also Affects the Moods of the Audience and Creates Space Between

2.2.1 The Sensation Could Be the Information Carrier as the Audience is Watching the Film

Sound is more fluidic than moving images because it also contains time. The information can easily travel through space through sound. For a better understanding, the sound could transfer the information as it could be heard in another room or another scene. All the senses are just the information carrier. In the film *Gravity*, a phenomenal idea is fostered and facilitated from the utility of a variety of sounds which are when the real explosion happens, there is no sound. The use of silence could be much more frightening than just a big bang because it creates a subliminal notion contrasting with the primary sequence that carries all the sound element. Such sound design brought people back to vacuum when there is no sound and it formed a huge contrast with all the other noise. An excellent sound design is always the most important fundamental element of a film as it provokes the audiences' diverse emotional responses [5]. The fame of the film at a certain time period would also be affected by the spectators' viewing perception [6]. Just like the film *The Elephant Man*, due to the original production area is in England and

British which has their own culture, personalities in the society and daily life style so that it is not liked as they only accept a film noise that is more approaching to their soft-voiced perception. Therefore, by collaborating with image and sound that is designed and aligned with culture and audience's lifestyle, it triggers the information that is originally stored in spectators' mind and will lead to similar feelings for same background group of audience.

2.2.2 Sound Can Create Different Kinds of Mood Because It Can Seduce Other Sensations

As sound provokes audience's imagination and prediction about the plots, it would alter audiences' mood. Audiences' sensory organs would be driven because of their own predictions and that would lead them to be more concentrated on the film. According to "stimulation of one sense modality automatically evokes a perception in an unstimulating modality" [7], sensations are not working on their own. Hence, the audience mood would be seduced to a great extent. The soundtrack of *The Elephant Man* is a significant example, the nervousness and anxiety of the audience are influenced by a broad range of sounds in background. The audience could receive the information that is carried by sound [5] because it has different features which and just like in the film *Gravity*. The music is like the emotional illustrator that paints the mood and it plays an irreplaceable role in the film. The actors are feeling the void and the helpless mood as they can share the experience's feeling within the film.

2.2.3 The Spectators Would Have the Feeling of Existing in the Scene and Sense of Space Because of the Different Layers of Sound

As illustrated in the film "*Gravity*", the spectators' feeling of deep emotion and frequency is created so that the space is produced. When the composition of sound and music could raise the audiences' emotions [8]. The sound effects are weakened in the soundtrack of the film *Gravity* and it is combined with background melodies. In terms of conveying the emotion and enriching the sound elements. The sound of electronic effects is blending in the background which enriches the sound elements. Electronic music is significantly tempered by the solo and electronic cello, and the tone shifts from the deafening in the beginning of a beautiful soft light tone. It is just like viewing the wonders of the earth from space. It is more invasive than the traditional soundtrack because of the setting of the moments for the audience to have exhilaration and catharsis. The horror and uneasiness are created in the illustrious unknown space with the eerie bass and roar in the film plot. The sound track holds the dark, oppressive, suffocating power and altogether it raises and trigger the audience's senses. The feeling of weightlessness and lack of oxygen in space is vividly presented in the film. As such, film has ensured that the audience could understand the scene as sound has played a decisive role which allows the spectators to connect with the real experiences and senses.

2.3 Sound Provide a Consciousness of Space and It Would Seduce a Composition of Senses that Allow the Spectators to Feel the Change of Time and the Space in the Theme

2.3.1 A Sense of Different Space and Movement in the Scene Could Be Depicted by Altering the Distance of Sound

Sound could be used to indicate the distance when characters are walking and moving in the scene. The feeling of standing in the unique place of a scene could be provided to the spectators. This is achievable without changing the angle and movement of the camera. One familiar example is the soundtrack in *Gravity*, when the space vacuum should be no sound at all, the production team still provided their sound design in the vacuum and avoiding alienating the audience. The vibration is imitated to feel the touching and the concept of sound of the details could make the audience to feel the being in the scene. The reverberations of the different space, action and materials would be distinguished respectively [9]. When it comes to a very complex environment, the audience could feel that if they are changing their position or actions in the scene without a certain frame but only by hearing the sound.

2.3.2 Without the Awareness of the Audience, a Good Soundtrack Can Produce a Wide Range of Effects

Extra information could be subtly injected into the scene by a well-designed soundtrack. Meanwhile, without causing the audience's awareness, a suitable soundtrack could also improve the texture of the film. It is explained by the fact that in part of the film image could be transferred as the hidden information of the sound in the subconscious level. The visual images are consistently bonded with the audio perception, which is called "Mickey Mouse" in the film industry that explains the situation when the music can be designed to enhance the visual perception by mimicking the rhythm [10]. Also, the sound could fully reveal the materials of props and this is quite common in the film. Take *The Elephant Man* for example, the sounds of the busy crowds on the street has a variety of layers which allow the audience to feel the actor's movement and the changing from balance, even to feel which foot the actor is moving when he's walking. The experience of waving across the real and virtual reality scene is provided by the sound [11].

2.3.3 Audiences Would Recall Similar Experience Subconsciously from Previous Memory When the Similar Sound Effect Transmitted, Which Raises the Current Feeling and Facilitates to Create a New Time and Space

All the information that the audience could receive is not only limited by the real world experience but also other senses that provide them a spatioception (the perception of space) [11]. The more realistic the sound is, deeper sense triggered by sound which is automatically edited and tailored in audience's mind. They could find similar experience segments as the sound provokes their body sense and memory. The musical score of the film creates a dream-like atmosphere and that makes the audience to dive into a temporary tranquility by arranging the sound effect of cello and solo into sad and lonely melody.

The film also retains a certain arrangement of pitches for a progressively rising tone and to rise the mood and emotional portrayal of the character which leads audience thinking about “What’s the point of living?” to “How to live?” Off the screen, the audience’s emotions would be reaching their peak. Therefore, the space in the film and the immersion experience could be brought to the audience because they are guided to jump through time and space, involving in the moment of the film and enter into the theme by the senses and feeling triggered by sound.

3 Conclusion

Overall, the use of sound is extremely important as it helps in delivering meaning and information, triggering audience’s sense, evoking emotional responses, and most importantly increasing the production value. It also carries meaning and present ideas through time and space as well as acting as a reflection of the emotional landscape of the storyline represented by the film. By hearing and interpreting soundtrack and music along with the moving images, audience are more involved with their sense and gains a better understand the emotional tone of the scene.

Maintaining a high priority of sound design and monitoring of very first planning and spending more on sound kit is essential to ensure excellent audience’s experience. When sound is well designed, through the combination of language, sound effects, music and even silence, can promote the film experience dramatically, whereas poor quality and inappropriate sound can ruin the film. Rather than cutting down and sacrificing on some content or special effect, the quality of the sound cannot be underestimated and downgraded from a standard threshold if budget is an issue.

As nothing ruins a good film like poor audio and sound quality, In the future, more effort will be on how to promote sound quality to the best within a reasonable budget and how to deliver the best quality and nature sound to the audience to ensure their optimal film experience.

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