Research on the Application of Soundscape Design in Domestic Suspense Films: A Case Study of *Lost in the Stars*

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Abstract: This paper takes the soundscape design of domestic suspense films as the research object, aiming to explore the classification, case analysis, and production process of soundscapes in domestic suspense films, and to propose innovative strategies. Firstly, by defining and classifying film soundscapes, the characteristics of soundscape design in domestic suspense films are summarized. Secondly, through a specific case study of *Lost in the Stars*, the application and effect of soundscape design in domestic suspense films are analyzed. Next, the production process of soundscapes in domestic suspense films in the digital cinema era is introduced, including sound design, simultaneous recording, post-production, mixing, and playback stages. Finally, innovative strategies for the soundscape design of domestic suspense films are proposed. This research aims to provide theoretical support and innovative ideas for the practice of soundscape design in domestic suspense films.

Keywords: Domestic suspense films, Soundscape, Film sound design.

1. Introduction

In recent years, domestic suspense films such as "The Dead End," "Cock and Bull," and "Burning Ice" have become increasingly important in the Chinese film market. These films have not only achieved impressive box office results but have also garnered significant attention at major film festivals both domestically and internationally. Sound is a crucial element in domestic suspense films. Current academic research on sound design in domestic suspense films largely focuses on individual sound entities and has not adequately addressed the phenomenon of soundscapes or interpreted their unique spatial characteristics.

Therefore, this study aims to explore the mechanisms and patterns of soundscape design in domestic suspense films, integrating soundscape theory with film sound design theory through an interdisciplinary approach. Using soundscape theory as the primary framework and *Lost in the Stars* as the analytical text, this research investigates the mechanisms and patterns related to soundscapes and space in the sound design of domestic suspense films. By systematically studying the soundscape design of domestic suspense films, this research can provide technical support and creative ideas for film production. It offers spatial insights into the historical heritage, regional characteristics, and cultural significance of domestic suspense films. Furthermore, examining the sound art within the

context of domestic suspense films from a soundscape perspective has practical significance for enhancing sensitivity to sound awareness and fostering a humanistic approach to listening. It allows the audience to discover that a suspense film can not only be seen but also heard, and the ultimate truth of a suspense film may lie hidden in the details of its sounds.

2. Overview of Soundscape Theory

2.1. Overview of Soundscape

The concept of the soundscape was popularized by Murray Schafer, who mentioned it in his 1977 book "The Soundscape: Our Sonic Environment and the Tuning of the World." The term "soundscape" is borrowed from the concept of the landscape and refers to all the sounds perceived by people within a particular area. Schafer's soundscape theory divides soundscapes into keynote sounds, signal sounds, and sound marks. Keynote sounds, also known as background sounds, serve as the background for other sounds and depict the fundamental sound characteristics of the living environment. Signal sounds have a signaling function and draw attention due to their inherent alerting role, such as bells, whistles, horns, and alarms, but they do not have the regional and temporal characteristics of keynote sounds. Sound marks, referred to as soundmarks in sound design, are sounds that have distinctive features of a particular place, including natural and artificial sounds [1].

2.2. Classification of Film Soundscapes

In film works, since sound is not confined by the frame, a film soundscape refers to the overall sound environment composed of sound elements within a specific space and time. It includes both natural environmental sounds and sounds produced by human activities.

Film soundscapes can be categorized into natural soundscapes, human activity soundscapes, musical soundscapes, and special effects soundscapes. Natural soundscapes include sounds from nature, such as wind, rain, and bird calls. These sounds can create tranquil, tense, or terrifying atmospheres, enhancing the audience's psychological pressure and driving the plot forward. For example, in a thriller, the deep sound of the wind and eerie bird calls can make the audience feel the protagonist's isolation and fear, further intensifying the film's suspenseful atmosphere.

Human activity soundscapes are another common type, encompassing sounds produced by human activities, such as voices, vehicle noises, and construction sounds. These sounds can enrich the film's background information, guiding the audience to focus on details and better understand the plot. For instance, in an urban film, the bustling street sounds and the noise of vehicles can vividly recreate the busyness and congestion of the city, helping the audience immerse themselves in the story.

Musical soundscapes are another frequently used sound element, creating a sound environment through background music, theme songs, and other musical elements. Music can enhance emotional expression, guide the audience's emotional direction, and help them better experience the film's artistic charm. For example, in a romantic film, soft background music and a touching theme song can enhance the audience's feelings of love, making them more engaged in the storyline.

Additionally, special effects soundscapes are also commonly used in film production. Through sound effects like gunshots, explosions, and illusionary sounds, the visual impact can be enhanced, improving the audience's viewing experience and revealing the suspenseful elements of the film. For example, in an action film, realistic gunshots and explosions can make the audience feel the intensity and tension of the battle, further strengthening the film's action atmosphere.

2.3. Characteristics of Film Soundscapes

Expanding Spatial Soundscape Design: Through the supplementation and expression of sound, the lack of visual information in the picture can be compensated for, providing the audience with a richer sensory experience. Good soundscape design can enhance the realism of sound and image, increasing the compatibility between them, thereby allowing the audience to more deeply feel the atmosphere and emotions of the film, and improving the sense of immersion.

Emotion-Driven Soundscape Design: Soundscape design is not only meant to supplement the shortcomings of the visuals but also to evoke the audience's emotions. In high-emotion films such as suspense and horror movies, the shaping of the soundscape can use changes in sound effects and the use of music to add color to the visuals, making the audience more invested in the storyline and providing a more spine-chilling sensory experience.

Soundscape Design that Recreates Specific Eras: By focusing on the cultural expression of sound, soundscape designers can recreate the historical and cultural context of specific films. For example, in films depicting ancient war scenes, by simulating the sounds of ancient battlefields, such as the sounds of fighting and marching armies, the audience can better feel the sense of the era, enhancing the film's authenticity.

3. Case Study of Soundscape Design in Domestic Suspense Films: *Lost in the Stars*

As a hit film in the summer of 2023, *Lost in the Stars* not only captivated audiences with its gripping narrative techniques and suspenseful elements but also successfully portrayed the image of a cold-hearted husband. The film skillfully integrates the complexities of male-female relationships into the plot, aligning with contemporary societal issues and resonating widely with audiences. Its high-quality production, particularly the soundscape design, adds significant artistic charm to the film.

3.1. Exaggerated and Deformed Soundscapes

Soundscapes play a crucial role in evoking audience emotions and adding a sense of suspense to the visuals. This sense of suspense is mainly achieved through the clever use of keynote sounds, signal sounds, and sound marks in material selection, loudness, frequency range, and spatial design. Especially in films with strong emotional tension, such as suspense and horror movies, exaggerated and deformed soundscapes often stimulate the audience's imagination, creating a sensory experience that is even more terrifying than the actual visuals.

In *Lost in the Stars*, the film continuously enhances its suspenseful atmosphere through the sound design of time-related props like pendulums and diving watches, as well as the intensified sounds of dangerous animals like snakes, scorpions, and jellyfish.

3.2. Enhancing Dynamic Impact

In the mixing process, increasing the contrast between the film's quietest and loudest sounds can enhance the layering and contrast of the sound. This method creates more noticeable sound differences in the listener's ears, capturing their attention and interest.

Creating an auditory sense of "unknown" and "shock" is also a crucial goal in mixing. Through clever sound design and processing techniques, unexpected sound effects can be created in the film, giving the audience a sense of mystery and tension. For instance, special sound effects can simulate strange sounds or sudden audio stimuli, providing the audience with an unexpected scare.

Additionally, mixing can make the film's sound more dynamic. By reasonably adjusting parameters such as volume, balance, and spatial effects, the sounds in the film can become richer and

more vivid audibly. This dynamic presentation allows the audience to feel the changes in scenes and plot, increasing their engagement and immersion.

An important goal in mixing is to bring the audience closer to the film's characters, enhancing their sense of involvement. By finely tuning and processing the sounds in the film, especially those detailing everyday life when the character He Fei wakes up, such as the rustling of skin or clothes and breathing sounds, the audience can feel as if they are right beside He Fei, experiencing the plot together with him.

Finally, in the film's climactic stages in the latter half, mixing can employ heavy, grand sounds to highlight the sense of suspense. By increasing low-frequency sound effects or volume, a strong impact can be delivered at key moments, further enhancing the suspenseful atmosphere. The intensity and shock of these sounds can make the audience feel the tension and dramatic atmosphere, improving their viewing experience.

3.3. Organic Integration of Musical and Special Effects Soundscapes

The coordination between sound effects and music in the film is highly harmonious, gradually blurring the lines between the two. Especially in car chase scenes, sound effects and music coexist seamlessly. To ensure that the audience can clearly catch the actors' dialogue, relatively static segments are interspersed within the chase scenes. This design allows the audience to feel the tension of the chase while not missing important plot details due to excessive noise.

In terms of music, the film cleverly uses rhythmic drum beats to appropriately reflect a sense of tension and relaxation. This rhythm complements the tense atmosphere of the chase scenes, further enhancing the audience's emotional experience. Additionally, the sound design incorporates rich car engine sounds to boost the overall immersion. To heighten the passion and urgency of the chase, the film specifically lowers the pitch of the pursuing car engines and mixes in sounds reminiscent of beastly roars.

This design of sound effects and music showcases a new trend where the film's sound system no longer needs to rely on traditional songs to attract the audience. Instead, music and sound effects can more purely serve the narrative of the film. By closely integrating sound effects and music, sound designers can better create the appropriate atmosphere and emotions, further enhancing the viewing experience. This trend marks the increasing importance and creativity of sound effects and music in film production.

3.4. The Metaphor of Natural Soundscapes

The beach dinner and the lighthouse argument are two significant dramatic scenes that utilize sound to emphasize the presence of Li Muzi. In these scenes, the sound of waves and the lighthouse's signal repeatedly appear, symbolizing Li Muzi's presence. These sounds serve not only as background music but also as a metaphor for Li Muzi's inner turmoil.

In the beach dinner scene, the sound of the waves interacts with the characters, creating a dialogue between them. The rise and fall of the waves complement the tension in the dialogue, enhancing the confrontation between the characters through the variation in sound. The intensity of the waves changes according to the content and emotions of the dialogue, as if responding to the missing Li Muzi. This sound introduction allows the audience to deeply feel the tension and inner conflicts between the characters.

Moreover, the sound becomes a guide for Li Danfeng. He aims to express Li Muzi's inner turmoil through the sound of the waves. The ebb and flow of the waves inspire his creation, helping him better understand and interpret Li Muzi's emotional state. The introduction of this sound is not just for creating an atmosphere but also for revealing the complex emotions within the character.

Overall, the use of sound in the beach dinner and lighthouse argument scenes is crucial. The recurring sound of the waves and the lighthouse signal, and their interaction with the characters' dialogues, not only increases the dramatic tension but also deepens the audience's understanding of the characters' inner turmoil. Additionally, the sound serves as a guide for Li Danfeng's creation, helping him better express Li Muzi's emotional state. Through sound design, the conflicts and emotions in these scenes are vividly presented.

3.5. The Direct Role of Language

In the film, language is used as the primary auditory expression to portray character images. Language conveys information that cannot be observed by the eyes. Through dialogue and speech, the relationships, motives, and emotions between characters can be deeply understood. Moreover, the precision and ambiguity of language give vocal narration a concrete quality [2].

An example in the film is when Chen Mai suspects He Fei of causing Li Muzi's disappearance. Language becomes a key factor in driving the plot. Without clear verbal identification, Chen Mai cannot see his close friend, highlighting the importance of language in communication and understanding. Only when He Fei mentions the keyword "Mosha Lighthouse" does Li Muzi reappear in the audience's view.

The confrontation scene in the hospital ward showcases the tension and urgency of language. Through the continuous use of the word "say," the dialogue between the characters reveals the tense atmosphere and their eagerness to solve the problem. Especially when He Fei utters the keyword "Mosha Lighthouse," the audience's dislike for him becomes more profound and resolute. This scene demonstrates the significant role of language in character portrayal and emotional expression.

4. Soundscape Production Process of Domestic Suspense Films in the Digital Cinema Era
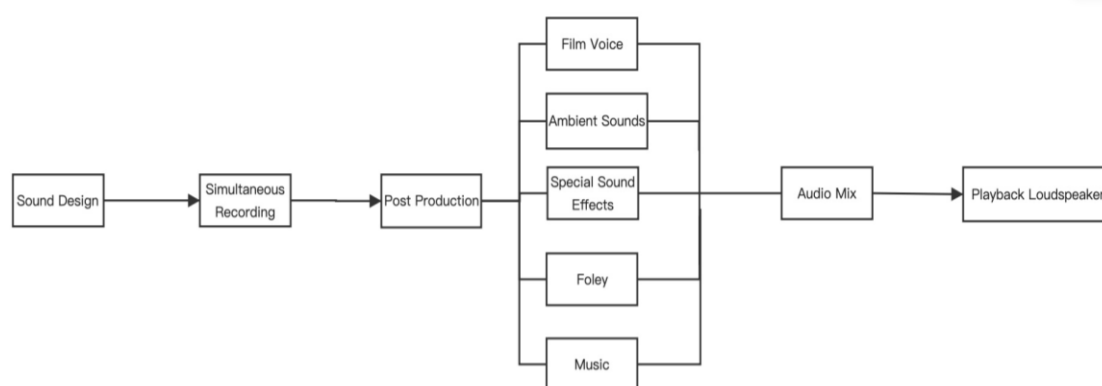

Figure 1: Soundscape Production Process of Domestic Suspense Films

4.1. Sound Design

In domestic suspense films, sound design must be meticulously conceived and arranged according to the plot's needs. Firstly, sound design needs to accurately convey the environment and atmosphere within the film. By selecting appropriate background music, ambient sound effects, and sound effects, the audience can experience the realism and tension of specific scenes in the movie.

Secondly, sound design can reveal hidden information and clues within the film through the use of sound effects, increasing the suspense for the audience. For example, specific sound effects can be used to hint at a character's true identity or to express their internal conflicts and emotional states.

Moreover, sound design can enhance the film's rhythm and tension through the manipulation and adjustment of sound effects. By adjusting parameters such as volume, speed, and pitch, the audience can feel the tense atmosphere at critical moments, increasing the film's appeal and watchability.

Finally, sound design can improve the audiovisual experience by coordinating sound with the visual elements. Precisely matching the rhythm and actions of the visuals can provide the audience with a more realistic and immersive viewing experience.

4.2. Synchronous recording

Synchronization recording is a crucial part of the soundscape design in domestic suspense films. It refers to the method of recording sound simultaneously during the filming process [3]. This method of recording voices and action sounds can shorten the production cycle.

In recent years, the technical level of synchronization recording has continuously improved. With advancements in technology, modern recording equipment can better reduce noise and enhance sound clarity, allowing the audience to hear the actors' dialogues and environmental sounds more clearly. Additionally, the professional skills and experience of the sound recordists are also key factors in ensuring the quality of synchronization recording.

4.3. Post-Production

Post-production holds a pivotal role in the soundscape design of domestic suspense films, encompassing the meticulous handling of dialogue, music, sound effects, and foley. In this phase, through detailed audio editing and processing, a more realistic and captivating soundscape can be constructed, significantly enhancing the audience's audiovisual experience. Specifically, the processing of dialogue, music, and sound effects, as well as the use of foley, are indispensable elements [4].

In terms of dialogue processing, this primarily involves the adjustment and restoration of conversations. Through sound enhancement, noise reduction, and equalization, dialogue clarity can be ensured while accurately conveying the characters' emotions and advancing the plot. Music plays a crucial role in suspense films, capable of creating atmosphere and evoking emotional resonance. Thus, appropriate music selection and editing in post-production are particularly important. Suitable music can effectively create a tense and suspenseful atmosphere, guiding the audience into the film's context. Additionally, the addition and adjustment of sound effects are key to enhancing the film's realism and immersion. For instance, by introducing ambient sound effects and special effects, an immersive auditory experience can be created, allowing the audience to delve deeper into the film's narrative.

Foley technology also plays an indispensable role in post-production. By re-recording sounds for scenes lacking real recordings, the content of the film can be made more complete and coherent. Foley includes but is not limited to the simulation of specific object sounds and the enhancement of ambient sound effects, all of which contribute to the coordinated unity of sound and visuals.

4.4. Mixing

Mixing is a crucial step in the soundscape design of domestic suspense films. It involves integrating and adjusting various sound elements to achieve the best effect in the film. The purpose of mixing is to enhance the viewing experience and emotional expression of the film through a reasonable balance of sound and spatial positioning.

During the mixing process, it is first necessary to classify and layer each sound element, including dialogue, music, sound effects, etc. Then, according to the plot and emotional needs of the film, sound balancing and mixing are performed. By adjusting parameters such as volume, sound position, and direction, each sound element is reasonably distributed and positioned in space, enhancing the film's realism and immersion.

Mixing also involves processing the audio quality, such as noise reduction, restoration, and enhancement. By reducing noise and interference, and improving the clarity and quality of sound, the audience can better hear dialogues and detailed sounds, thus better understanding the plot and characters' emotions.

Moreover, mixing needs to consider the dynamic range of the audio and the application of audio effects. Through the reasonable adjustment of volume changes and the use of audio effects, such as reverb, echo, and editing, the sound becomes more vivid and three-dimensional, enhancing the film's atmosphere and dramatic effect.

4.5. Re-recording

In the re-recording stage, sound designers mix different audio elements. Re-recording is the process of blending various audio elements together, ensuring they are coherent throughout the film. Sound designers adjust volume, balance the proportions of different audio elements, and handle sound positioning and spatial effects based on the film's requirements and desired effects. Through proper re-recording, the audience can become more immersed in the film's storyline.

During the re-recording stage of soundscape design in domestic suspense films, coordination with the visuals is also essential. Sound designers work closely with the film's director and editors to ensure that the sound and visuals are well-coordinated, allowing the audience to better experience the film's atmosphere and emotions during viewing [4].

5. Innovative Strategies in the Soundscape Design of Domestic Suspense Films

In domestic suspense films, incorporating modern technology into sound design can present audiences with a more realistic, striking, and immersive auditory experience [5]. Virtual Reality (VR) and Augmented Reality (AR) technologies can offer a more three-dimensional and immersive experience in soundscape design. By using VR technology, audiences can experience the sound environment of the film as if they are physically present in the movie scenes. AR technology can combine virtual sounds with real-world scenes, creating a richer and more diverse soundscape effect.

Additionally, the development of sound synthesis and sound effects design also provides more innovative possibilities for soundscape design. Sound synthesis technology can generate various sound effects, making the soundscape more diverse and personalized. Sound designers can use modern sound effect libraries and audio processing software to create more realistic and captivating sound effects, enhancing the suspenseful atmosphere and emotional expression.

In future developments, the integration of modern technology in sound design can bring more possibilities and imaginative space to domestic suspense films, creating a more realistic and captivating viewing experience.

6. Conclusion

Through the analysis of the current state of soundscape design in domestic suspense films, it is found that the soundscape design in domestic suspense films has characteristics such as expansion space, emotional orientation, and the restoration of a sense of the era. Additionally, through the analysis of soundscape design cases in domestic suspense films, it is found that the soundscape design in domestic suspense films mainly enhances the suspenseful atmosphere and immersion by using

methods such as exaggerated and distorted sound effects, enhancing dynamic impact, and integrating musical soundscapes with sound effects.

In the digital film era, the production process of the soundscape in domestic suspense films has become more complex and refined. From sound design, synchronous recording, post-production to mixing and re-recording stages, each step requires professional technology and meticulous design. The improvement and optimization of these processes help enhance the quality and effect of the soundscape in domestic suspense films.

In future developments, integrating modern VR and AR technologies can bring more possibilities and imaginative space to domestic suspense films, creating a more realistic and captivating viewing experience.

Hopefully, through these discussions, we can provide some theoretical reference for the sound creation of domestic suspense films, thereby promoting the innovative development of soundscape design in domestic suspense films.

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