

Futuristic Transcoding of Traditional Soundscape Elements in Chinese Sci-Fi Films

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Abstract. The rise of Chinese sci-fi films has opened up new arenas for local cultural expression, among which the construction of soundscapes is particularly crucial. This paper focuses on the "futuristic transcoding" of traditional soundscapes in the context of sci-fi futures. Beyond technological reconstruction and aesthetic innovation, this is a complex practice of cultural recognition. By analyzing the cultural sound transcoding in *The Wandering Earth* series, the electronic deconstruction of folk music in *Crazy Alien*, and the defamiliarized use of dialects in *Cosmic Exploration Editorial Department*, the study reveals how this transcoding activates cultural memories embedded in the national collective unconscious and confirms cultural identity on a cosmic scale. This practice not only enriches the sound aesthetics of Chinese sci-fi and avoids Western homogenization but also constructs a "Chinese sci-fi soundscape" that integrates national characteristics with futuristic imagination, providing a unique Eastern model for global sci-fi discourse.

Keywords: Chinese sci-fi films, soundscape, futuristic transcoding, cultural identity, sound aesthetics

1. Introduction

When *The Wandering Earth* launched the "first year of Chinese sci-fi films" in 2019, Chinese filmmakers began exploring ways to showcase local culture within the grand framework of sci-fi creation. Current academic discussions mostly focus on the presentation of Chinese imagery in visuals, the construction of industrial aesthetics, and the localization of narrative logic. However, sound—another core element of the viewing experience—has not yet received comprehensive and systematic analysis regarding its role in building the credibility of sci-fi narratives, conveying cultural symbols, and evoking emotional resonance. Film sound is not a direct copy of reality but an artistic carrier of cultural symbolic connotations. For the sci-fi genre, which highly relies on world-building, the design of sound structures is crucial: it can shape physical spatial structures, as well as construct temporal order, cultural contexts, and emotional networks. The design of soundscapes is particularly important, as it "not only shapes space but also defines time, culture, and emotion" [1].

A theoretically profound and practically significant question arises: how can the distinctive "traditional Chinese soundscape" heritage—shaped by diverse auditory cultural legacies such as opera accompaniment, folk ballads, urban hustle and bustle, and dialectal variations—be adopted, recombined, and integrated into future-oriented auditory paradigms when sci-fi narratives are set in

future civilizations or extraterrestrial ecosystems? To resolve the core contradiction of maintaining the presence and recognizability of cultural roots while absorbing universal scientific and technological imagination, Chinese sci-fi films have initiated "futuristic transcoding." Technically, this involves the systematic transformation of traditional audio to meet futuristic aesthetic standards; culturally, it entails contextual resetting of traditional symbols to endow them with interpretations compatible with contemporary contexts. This exploration transcends the simple splicing of Chinese and Western cultures or "local" and "foreign" styles.

Adopting an integrated research model of film auditory analysis, cultural theory, and sci-fi studies, this paper conducts textual analysis based on sound designs in selected representative Chinese sci-fi films in recent years, focusing on "the futuristic presentation of traditional soundscapes through digital technology." It addresses the following questions: How are technical implementation processes of transcoding integrated with aesthetic considerations? What narrative and emotional functions do the transcoded soundscapes serve? What methods do sound art practices employ to shape the uniqueness of Chinese sci-fi culture, and what distinctive Chinese theoretical constructions and implementation approaches have emerged in global sci-fi exchanges?

2. From "soundscape" to "acoustic milieu": theoretical framework and conceptual definition

Before conducting thematic analysis, it is necessary to accurately define the core concept of this paper—"soundscape"—and its critical reconstruction concept—"acoustic milieu," followed by clarifying the operational definition of "futuristic transcoding."

The concept of "soundscape" was proposed by Canadian composer R. Murray Schafer, who defined it as "a sound environment that emphasizes individual or social perception and understanding" [2]. He described it as "a spatial existence of sound that highlights human perceptual mechanisms." This concept breaks through the limitations of focusing solely on the physical characteristics of sound, establishing a three-dimensional framework encompassing environmental connections, perceptual processes, and cultural meanings, thereby providing analytical support for exploring the interactive relationship between soundscapes and social environments. In film analysis, scholars use the "soundscape" concept to study how sound creates authentic and engaging narrative environments.

Schafer's "soundscape" concept implies a static, almost natural-historical tendency toward recording and classification. The value judgment of "hi-fi" (high fidelity) and "lo-fi" (low fidelity) soundscapes in his "World Soundscape Project" also carries a nostalgic and romanticized imagination of pre-industrial sounds [3]. This orientation fails to fully interpret the highly artificial and variable technical sound environments in sci-fi films. Within this framework, Wang Jing introduced the concept of "acoustic milieu" to revise and deepen the theory. The "acoustic milieu" emphasizes "the two-way interaction between the perceiver and the sound environment—being shaped while participating in the shaping process." It "is not an objectively definable entity; it belongs neither purely to natural nor cultural categories but integrates perceptual, technical, and anthropological traits." She argues that the "acoustic milieu" places greater emphasis on "the perceiver's active or passive participation in the formation and transformation of the sound environment while being shaped by it," noting that it "is not a representable object, not entirely natural or cultural, but sensory, technical, and anthropological" [4].

The soundscape theory enables a more comprehensive analysis of sound design in Chinese sci-fi films. This research breaks the mechanical division between the listener and the heard, explaining the dynamic ecological relationship between sound, listener behavior, media devices, and cultural systems. The "spatiotemporal translation method" in Chinese sci-fi narratives is essentially an

experimental exploration to construct a sound expression system for Chinese sci-fi. Its core is not to recreate historical soundscapes in spatiotemporal terms but to adopt advanced sound technologies for creative translation of traditional sound symbol systems, enabling them to intervene in and generate forward-looking or extraterrestrial acoustic dimensions. The sound entities produced through digital transformation then influence the audience, activating latent cultural cognition and emotional projection, and completing the symbolic anchoring of cultural belonging.

In this study, "futuristic transcoding" refers to the use of contemporary audio processing techniques and artistic creativity to modernize, deform, deconstruct, reconstruct, and innovate representative elements of traditional Chinese sound, such as opera conventions, folk music melodies, dialectal speech, and specific sounds. These elements are then appropriately embedded in the acoustic narrative environment of sci-fi films, maintaining cultural recognition while generating new expressive forms, practical functions, and symbolic values suitable for future time-spaces or extraterrestrial contexts. The core lies in "transformation" rather than direct application, reflecting the creative transformation and innovative development of traditional elements from an auditory perspective.

3. Case analysis: diverse paths of futuristic transcoding of traditional soundscapes

3.1. The wandering earth series: sound transcoding of cultural core and the aesthetics of "spiritual resemblance"

As a typical example of the heavy industrialization of Chinese sci-fi, The Wandering Earth series constructs future scenes that are both realistic and epic in accordance with physical rules. In terms of sound design, apart from the grand auditory atmosphere and industrially aesthetic mechanical sounds, the unique approach to transforming traditional symbols is particularly notable. Unlike the common practice of directly quoting traditional sounds, Director Guo Fan stated in an interview recorded in Contemporary Cinema that the film focuses on Eastern values of "family inheritance" and "father-son bond," and expresses Chinese people's deep attachment to their homeland through the narrative of "moving the Earth."

The audio transformation of relevant cultural elements is mainly reflected in the musical arrangement and the overall design concept of the sound environment. In the creation of the score, instead of directly using existing musical vocabulary from traditional opera, the film takes symphony as the underlying logic and integrates electronic synthesized sounds to construct a grand sound framework compatible with sci-fi epic narratives. When asked about this, he reaffirmed that his artistic philosophy focuses on expressing the spirit of Chinese elements rather than obsessing over formal similarity. The sound design does not settle for superficial borrowing of traditional sound patterns or symbols but focuses on integrating and reflecting the unique implicitness, simplicity, and collective sense of belonging of Eastern aesthetics in the overall style, emotional core, and structure of the music.

From an engineering perspective, this is a more abstract transcoding model. The research perspective moves beyond the superficial forms of soundscape elements to explore their cultural logic and emotional systems. At key narrative moments—such as when survival crises occur and the father-son relationship is sublimated—the home-themed music segments often adopt gentle yet tense melodic lines. Through new arrangement techniques and sound mixing, they arouse the audience's resonance with core Eastern values such as "solidarity and cooperation," "passing on the torch," and "self-sacrifice for others."

Aesthetically, this transformation process exhibits multi-dimensional aesthetic functions. It avoids the stylized and superficial use of cultural symbols, aligning sound design with the epic nature and emotional tension of the overall narrative rather than confining it to the simplistic stacking of fragmented "Chinese-style" elements. Using contemporary musical expressions, it visually presents the connotation of the Eastern philosophical concept of "the isomorphism of family and country" through auditory art, realizing the implicit implantation and innovative communication of cultural values. At the same time, it creates cross-cultural sci-fi audio-visual scenes infused with Eastern cultural nutrients, allowing global audiences to experience both the universal impact of the sci-fi genre and the emotional core of Chinese culture.

The sound creation of this film series breaks away from the mode of symbolic literal translation and pioneers a unique transcoding path: first abstractly summarizing and contemporarily presenting cultural essence, then realizing the "digital transfer" of classical charm. It contributes an in-depth and inclusive model for the construction of a Chinese sci-fi sound system.

3.2. Crazy Alien: electronic deconstruction and playful collage of folk music melodies

In *Crazy Alien*, Ning Hao adopts a postmodern playful transcoding method, surrealistically combining the sci-fi narrative of extraterrestrial visitors with the traditional folk art of monkey training. The sound design cleverly complements the unique aesthetic of "earthy sci-fi."

During the alien's "performance" segments, the score breaks away from the conventional symphonic arrangements or electronic sound effects commonly used in sci-fi films. Instead, it selects melodic fragments from the classic piece *Yungong Xunying* (Palace of Clouds Melody) and creates a "new" arrangement through electronic sound processing, material looping, and collage techniques. Technically, this method involves the electronic decomposition and recombination of folk music melodies: traditional timbres such as the flute and electronic drums are subjected to waveform distortion and duration stretching, and combined with electronically processed timbres and rhythmic patterns to create a composite auditory experience that contrasts traditional elements with modern psychedelia.

The aesthetic value of this transcoding lies in its deconstructive and satirical nature. The work subverts the established sacred imagination and crisis narratives of advanced civilizations. Extraterrestrial life—an iconic presence in Western sci-fi—is comically disciplined by local cultural logic through electronically modified folk *suona* and gongs and drums, ultimately achieving a playful deconstruction and cultural appropriation of the Western sci-fi framework. Through sound collage, the film amplifies the absurd comedic atmosphere of the images. The creative use of sound echoes the replicated landscapes of the "World Park," jointly constructing a time-space where simulation and reality overlap and cultural elements are reconstructed by consumerism. It depicts the reality of cultural mutual penetration in the context of globalization. This transcoding practice does not aim for sublimity but adopts down-to-earth folk humorous techniques as a special expression of cultural confidence. Traditional soundscape elements demonstrate strong local cultural inclusiveness, capable of both deconstructing and integrating foreign cultures. This sound processing complements the simulated landscapes of the "World Park" in the film, jointly constructing a postmodern space where truth and fiction are mixed and cultural symbols are arbitrarily appropriated and consumed, reflecting a certain reality of cultural collision in the context of globalization [5].

3.3. Cosmic exploration editorial department: "extraterrestrial" defamiliarization and poetic preservation of dialectal dialogue

While the previous two cases focus more on the transformation of musical soundscapes, this film—adopting a mock-documentary aesthetic—is a sci-fi art film that constructs a linguistic soundscape through dialects, achieving effective transcoding within the sci-fi narrative framework. The film's atmosphere is both absurd and humorous, yet infused with compassion and poetry.

The entire film uses rich Sichuan dialect and Southwest Mandarin as the main dialogue. Technically, the dialect recordings are presented in a natural, simple, and daily-like manner without special effects processing. This "unprocessed translation," placed within the extreme surreal narrative of "searching for extraterrestrials," generates a strong sense of alienation. Tang Zhijun and his companions explore ultimate metaphysical questions such as multi-dimensional spaces and extraterrestrial civilizations in heavy local accents, creating a tension between colloquial dialogue and the discussion of profound propositions.

This contrast highlights the solemnity of the themes and gives rise to a unique poetic realism. The regional characteristics, daily life vibes, and grassroots nature embodied by the dialects act like an anchor chain, deeply embedding the illusory and rootless sci-fi exploration into the localized reality of China. The film shows the audience that the motivation for cosmic exploration is not exclusive to the elite or developed countries but also naturally arises in the hearts of ordinary town residents in China. The unique phonetic rhythms, vocabulary patterns, and discourse styles of the dialects provide a foundation for the generation of alternative poetry, endowing the film with diverse emotions blending humor, warmth, and sorrow. From the perspective of contextual reconstruction, after "futuristic transcoding," the daily communicative attribute of dialects fades, and they become important components in shaping the temperament of "Chinese folk sci-fi." They endow scientific imagination with a unique realistic texture and humanistic warmth rooted in Chinese soil [6], achieving a significant transformation from auditory expression to cultural connotation in the international sci-fi film arena and showcasing a new style.

4. Cultural significance: identity confirmation and discourse construction in transcoding practices

The futuristic transcoding of traditional soundscapes is a creative activation of cultural memory. Aleida Assmann argues that cultural memory needs to be stored and transmitted through "concrete carriers" [7]. The forward-looking transformation of traditional auditory elements enables the creative continuation of cultural memory, with sensory and emotionally permeable media becoming the core carriers of cultural memory inheritance. For the sci-fi genre—characterized by forward-looking imagination—the transcoding of sound carriers such as Peking Opera, folk music, and dialects effectively activates the cultural collective memory of the past to construct a blueprint for the future. When domestic audiences face cosmic spaces or high-tech scenes, they can perceive familiar and belonging tones, gain psychological assurance of cultural identity, and alleviate the cultural dislocation and identity anxiety caused by rapid technological progress.

This practice significantly weakens the discursive dominance of Western sci-fi narratives. Sci-fi film creation worldwide—typified by American sci-fi films—has constructed a relatively standardized sound aesthetic framework, such as grand symphonic arrangements, cool-toned synthetic sound effects, and formulaic English dialogue. This acoustic paradigm has inadvertently defined "the sounds of the future" with implicit cultural dominance. By proactively absorbing and reshaping traditional acoustic heritage, Chinese sci-fi films subvert this homogenized dominance

through auditory means. It proclaims that the sounds of the future can be Beijing-styled, electronically processed *suona*, or Sichuan dialect, thereby challenging the Western-centric imagination of the future and contributing diverse, alternative sound models to global sci-fi soundscapes [8].

Its role lies in constructing a unique cultural recognition and expression for "Chinese sci-fi." Chinese sci-fi is neither a purely geographical concept nor a mere industrial label but essentially a cultural and aesthetic category. It can accurately translate the soundscape system, adding a new dimension to Chinese sci-fi films beyond visual shock and creating distinct auditory recognition markers. These markers are not extreme nationalist symbols but embody an inclusive, innovative, and composed perspective that infiltrates the essence of national culture into universal concerns about the community with a shared future for mankind and visions of the future. Based on cultural heritage, it achieves innovative development, independently pioneering a path of modernization and future planning that breaks away from the established framework of Western modernization. Together with efforts in other aspects, this sound practice participates in constructing a sci-fi discourse system that can dialogue with the world while possessing distinct Chinese characteristics [9].

5. Conclusion

The "futuristic transcoding" of traditional soundscape elements in Chinese sci-fi films is a comprehensive practice integrating technological and aesthetic innovation with cultural strategy. It is by no means a simple stacking of cultural symbols or a novelty display but achieves an effective connection between deep cultural logic and future narrative contexts through diverse paths—such as the sound transcoding of cultural core in *The Wandering Earth* series, the electronic deconstruction and playful transformation of folk music in *Crazy Alien*, and the defamiliarization and poeticization of dialects in *Cosmic Exploration* Editorial Department.

Technically, this transcoding process demonstrates the creativity and advancement of sound design. Aesthetically, it greatly enriches the sound expressiveness of Chinese and even global sci-fi films, breaking through the established paradigm of Western sci-fi sound. Culturally, it successfully transforms cultural memory into a creative resource for the future, confirms cultural identity within the cosmic-scale imagination, and provides a valuable "Chinese plan" and "Chinese soundscape" for constructing a diversified global sci-fi discourse.

Future Chinese sci-fi film creation should continue to deepen the exploration and transcoding experiments of the traditional soundscape treasure trove, explore more diverse sound transformation paths, and avoid simplistic symbolic repetition. Meanwhile, the theoretical and critical community should pay more attention to and conduct research on film sound, especially its cultural dimensions. Only in this way can Chinese sci-fi films truly construct a culturally confident future world that is both shocking and lingering, both aspiring to the stars and grounded in reality—not only visually but also auditorily.

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References

- [1] Wang, J. (2023). From "soundscape" to "sound environment": Sound as a medium. *Chinese Journal of International Communication*, 45(12), 136–148.
- [2] Schafer, R. M. (1993). *The soundscape: Our sonic environment and the tuning of the world*. Destiny Books. (Trans. by L. Li. 2013. *The soundscape: Our sonic environment and the tuning of the world*. Communication University of China Press.)
- [3] Kelman, A. Y. (2010). Rethinking the soundscape: A critical genealogy of a key term in sound studies. *The Senses and Society*, 5(2), 212–234.
- [4] Wang, J. (2018). On sound environment. *Communication and Publics*, 3(4), 283–289.
- [5] Sun, S. Y. (2019). On the post-modern cultural logic of Ning Hao's *Crazy Alien*. *Film Art*, (3), 65–69.
- [6] Li, Y. (2023). *Cosmic Odyssey Editor: Folk science fiction, dialect poetics and spiritual exploration*. *Film Art*, (3), 78–82.
- [7] Assmann, A. (2016). *Cultural memory and western civilization: Functions, media, archives* (L. Pan, Trans.). Peking University Press.
- [8] Fan, B. (2021). A study on the overseas communication of Chinese sci-fi films from a cross-cultural perspective. *Modern Communication (Journal of Communication University of China)*, 43(8), 103–108.
- [9] Wu, Y. (2019). On the national characteristics of Chinese science fiction novels. *Chinese Literary Criticism*, (4), 121–129.