

Diegetic and non-diegetic sounds in film scoring of *Pengabdi Setan* film

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ABSTRACT

Background: This research examines the 2017 film *Pengabdi Setan* scoring function. Joko Anwar wrote and directed the film *Pengabdi Setan*, released on September 28, 2017. This film is a remake of a 1980 film of the same name. In this film, the score is essential for visually confirming symbols or incomplete messages. There are two types of sound: diegetic sound and non-diegetic sound. **Purpose:** This research aims to determine how diegetic and non-diegetic sound were used to create a horror atmosphere in the film *Pengabdi Setan*. **Methods:** The authors described the audio analysis results in the form of diegetic and non-diegetic sounds using a qualitative descriptive analysis. Documented assessment and observation were employed as data collection techniques. **Results:** The results indicate that infrasonic sound (infrasound) and sub-bass frequencies in the form of non-diegetic sounds emotionally impact audiences. The typical frequency is 31 Hz, and although it is inaudible to the human ear, the audience can sense the vibrations of this frequency. This frequency can typically only be perceived as a “chest rumble.” In general, both diegetic and non-diegetic sounds in the film *Pengabdi Setan* contribute to completing the defective message symbol. The combination of infrasonic sound effects, sub-bass, and musical composition validates the visual messages or symbols. **Implications:** This research can theoretically serve as a resource for future researchers interested in studying diegetic and non-diegetic sound in film. Directors and cinema sound engineers can use this research to construct diegetic and non-diegetic sound in their films, particularly horror films.

Keywords: diegetic sound; film scoring; infrasound; nondiegetic sound; *Pengabdi Setan*

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INTRODUCTION

One of the best horror films in Indonesia in the past decade was the film *Pengabdi Setan* or, in English, *Satan's Slave*, which was also known to have an intense music score throughout the film. The film *Pengabdi Setan* (2017) is a remake of the film with the same title in 1980. This film was written and directed by Joko Anwar and released on September 28, 2017. Joko Anwar had six reasons why he insisted on doing a remake of this 1980 film. His reasons were that the film was famous, it had a very strong story plot, and it was one of the most favorite horror films. He also wanted to change the horror movie image, and last, he wanted to give a new sensation to the story plot.

Pengabdi Setan tells the story of a female singer, Mawarni Suwono—whose mother was sick for three years in 1981. The mother, who was once famous as a singer, was only cared for by her family, namely her husband/father and their four children. They live with their grandmother in a village far from the city.

Mother could not get up and talk, so she rang the bell to call the family and fulfill all her needs. Mother eventually dies, although it turns out that a figure that resembles the mother wants to take her youngest child, Ian. This is related to the past story of the mother and father who did not have children, even though they had been married for ten years.

This family did not ask God but asked the devil by joining a cult in the city when their mother was a singer. After the mother died and

the mother figure haunted this family, the terror of the mother figure continued.

This film won many awards at festivals and other award events, including at the 2017 Indonesian Film Festival. This film won the categories of the best sound, best theme song, and best musical arrangement. The award was received for the music scoring team's hard work, consisting of Aghi Narottama, Bemby Gusti, and Tony Merle—the role of Khikmawan Santosa as the sound designer was also acknowledged. This film was acknowledged inside the country and noticed by many horror enthusiasts inside the country.

"Satan's Slaves is a gem worth seeking out for fans of the Conjuring or Insidious series. It's a captivating watch to see how other cultures play with some of the same tropes we have grown accustomed to here in the US." (*Satan's Slaves*, n.d.)

Looking at the fact that the film *Pengabdi Setan* won many awards related to its music, research about its music has not been a trend. Previous research about the film relates to its production, the culture, the mother, or the fact there have been some stereotypes of women in this film.

The film production process involves pre-production, production, and post-production, involving social agents tied to social structures. Film production is highly dependent on ideological values and political economy. Based on research, the film *Pengabdi Setan* has economic value as its main goal is to be reproduced with various changes to adjust to the current social structure of the audience.

The production process is co-opted by the values that bind the Indonesian film structure, especially in filmmaking. The film *Pengabdi Setan* (See Figure 1) has been able to create public awareness of the reality of film content as a direct representation of society bound by the structure in which films are produced (Wahid & Agustina, 2021). From that previous research, music scoring on a film could also become a representation of one's ideology.

More researchers on this film focus on the woman figure or the 'mother.' Female ghosts' characters exhibit the aspects of motherhood. Their maternal roles tend to egoistically dominate their children's lives (Saputra & Sulistyani, 2019). In other research, the stereotypes of Indonesian women in this film are discussed. The stereotypes of Indonesian women in the film *Pengabdi Setan* demonstrate that women take on jobs or activities, traits, behaviors, and appearances that were previously portrayed by males in the narrative and character of the film (Prawiranauli et al., 2018).

In addition to these two pieces of research, interesting research tries to dismantle patriarchal ideology and the ideal construction of women in the film *Pengabdi Setan* and *Asih*. This research states that the characters of female ghosts are portrayed as "failed products" excluded from patriarchal conceptions of the ideal female. In *Pengabdi Setan*, the image of the mother as a ghost implies that for women to be considered "ideal," they must be able to give birth and rear children, whereas, in *Asia*,

women are believed to retain their virginity until they are married. In this context, the state recognizes marriage and sexual reproduction. Both female protagonists in these films do not meet these requirements. Through these two Indonesian horror films, patriarchy as the dominant worldview in Indonesia is once again conformed and exercised to define the "ideal" female (Permatasari & Widisanti, 2019).

Typically, women play the lead roles in Indonesia's numerous horror film productions. Women are frequently the victims of violence, and the prevalence of violence is also a factor in the creation of horror films. Female spirits often hold grudges, as if they have not accomplished something in life. Women are known for their femininity, and their docile disposition makes them vulnerable to violence (Azizah & Rahayu, 2022).

It can be observed in the dearth of films that provide a favorable representation of women in Indonesian films. Women are frequently represented as being beneath men in society's eyes. In addition, many films continue to portray women as objects of sexual desire (Yuliantini, 2021). During the years 1990-2010, Indonesian horror films upheld sexuality's dominant values to the point where the sacredness of the stories they conveyed became ambiguous and lost its significance. The presence of adult film actresses makes the situation worse by emphasizing sexiness. This has resulted in strong opposition from both the general public and certain community organizations, who believe that

horror films violate existing boundaries and do not adhere to Indonesia's prevalent norms (Setiawan & Halim, 2022).

Moreover, from 2009 to 2014, Indonesian horror films tended to be set in urban settings, where visual text structure became more critical than the plot. The prominence of eroticism in various commodities, particularly the female body, is growing (Setiawan, 2018). Horror films produced in Indonesia frequently depict women in the role of a commodity. The development of sensuality along with women's bodies is the product of political and economic tendencies (Ayun, 2015).

According to the findings of other pieces of research, the female protagonists in Indonesian horror films nearly always take the form of ghosts or monsters. The representation of female ghosts in Indonesian horror films typically takes the form of paranormal horror, which is the predominant subgenre in these films (Annissa & Adiprasetio, 2022).

When most audiences watch films, their first focus is anything seen, which is the actors or actresses, the environment, *mise-en-scene*, or, in other words, everything visual. Then they

will notice the sounds, which are the dialogues and the sounds that we naturally listen to in the real world, for example, the sound of steps when people are walking, the sounds of the vehicles running on the road, or the chirps of the birds. After that, people will recognize a soundtrack, like music, that follows the action or the scene. This music gives us a more intense feeling.

In film theory, these sounds use terms to separate elements. The first sound is a part of the depicted fictional world or sounds from inside the story, while the second sound comes out and should be considered non-existent in the fictional world. Dialogue between two characters is seen as diegetic, while background score music is seen as non-diegetic (Jørgensen, 2011). It is suspected that the first film to use scoring and sound film music was the film *King Kong*, which was shown in 1933 (Slowik, 2013).

Diegetic sound refers to any sound that originates from within the fictional world of a film or any audio-visual work. They are part of the story's narrative and are perceived as natural or realistic by the characters within the film. Diegetic sounds can include dialogue, sounds made by objects or characters, ambient noises, and music that the characters can hear.

In the context of film, the term "non-diegetic" refers to elements that do not exist in the world of the film's story itself. These sounds relate to elements that are not seen or heard by the characters in the film. Examples of non-diegetic include background music, narrator



Source: Instagram @jokoanwar, 2023

Figure 1 Display of *Pengabdi Setan* (Satan's Slave) Film Poster

voice, sound effects, text or titles that appear on screen, and some types of visual effects.

In the film *Pengabdi Setan*, there are some scenes that can be called “jump scare” scenes, where the scenes are followed by intense sounds or background sounds that emphasize the scary scene. That music or sound is considered non-diegetic. It's not in the world of the film, and the characters within the fictional world cannot hear it. These non-diegetic sounds are added after the shooting process as an additional element to provide atmosphere or increase emotion for the audience. This statement corresponds to research on the film *Waktu Terlarang* that emphasizes how non-diegetic sounds build the mood of the audience (Ariani & Neta, 2021).

From the explanation above, it can be concluded that Dykhoff stated that everything that happens inside this world is called diegetic, and what happens (in the film) outside this world is called non-diegetic. Traditional film music and voice-over narration are typical examples of non-diegetic sounds (Dykhoff, 2012). However, according to an intriguing study by Watts, a scene in the film *Atonement* featuring the sound of a typewriter can obscure the line between diegetic and non-diegetic sounds. Not only does this technique obscure the distinction between diegetic and non-diegetic sounds, but it also blurs the distinction between reality and fiction (Watts, 2018).

Film music is shown to be profoundly influenced by film genre, but the use of generically specific music is as complex and

nuanced as cinema's negotiation of genre at the narrative level. While genres do indeed have signature musical paradigms, these do not exist discretely but in constant tension with and in relation to one another (Lipscomb & Tolchinsky, 2005). As with sound, there are two kinds of music in films, namely diegetic music and non-diegetic music (music understood to be or not to be part of the story of a film) (Heldt, 2013).

In many cases, the music score is used as a non-diegetic sound element to enhance the audience experience. However, there are some exceptions where the music in the film becomes a diegetic sound, such as scenes where the characters play music from the radio or instruments that are actively played by the characters in the scene.

Research on constructing jump scare in the film *A Quiet Place* (2018) found the diegetic sound indicated by the sound that came from the film's world shown by the situation by dominantly incorporating various natural or environmental diegetic sounds and using minimal dialogue in *A Quiet Place* (2018) film. Other findings also relate to the roles of diegetic sounds in building jump scare in *A Quiet Place* (2018) film (Ngazizah, 2021).

The focus of this research is on the scoring of *Pengabdi Setan*'s film. An essential factor in the success of a film scoring is choosing the right scene or moment where music can really “speak” effectively. Therefore, the director, scoring, and editorial teams should have a

practical discussion session to reach the right moment (Hannan, 2009). Joko Anwar, the director and screenwriter of *Pengabdi Setan*, wrote a snippet of Bemby's statement that the scoring of this film is packed with 80es horror-style music (Bahar, 2017). This is in line with Stuessy and Lipscomb's statement that film scoring often serves to "authenticate the era" or to provide a sense of nostalgia (Lipscomb & Tolchinsky, 2005).

The scoring concept combined several experimental elements. The scoring team uses musical instruments and sounds that fall into the psychoacoustic category, namely instruments and sounds that can affect human psychology. One of the experiments is to add an Infrasonic sound frequency, which generally cannot be heard by the human ear because the frequency is below 20Hz (Bahar, 2017).

From the research on Indonesian horror films discussed above, it is rare for researchers to focus on film music, sound, or any diegetic or non-diegetic topics in Indonesian films, especially on the film *Pengabdi Setan*. This research will be the first study to examine this specific research object. The aim of this research is to determine the use of diegetic and non-diegetic sound to build a horror atmosphere in the film *Pengabdi Setan*. So, the general research question is, "How does the use of diegetic and non-diegetic sound help build a horror atmosphere in the film *Pengabdi Setan*?"

The question above is then divided into two research questions: (1) In the context of

horror films, how does the use of diegetic sound affect feelings of tension and anxiety, provide emotional closeness, and trigger cognitive reactions in the audience? (2) What is the role of non-diegetic sound in building a horror atmosphere? Non-diegetic sounds such as background music, sound fx, and sounds that do not exist in the film world can stimulate an audience's emotional response, which is difficult to achieve with diegetic sound.

RESEARCH METHOD

This study used a qualitative descriptive analysis method to determine the role of scoring in the *Pengabdi Setan* film. The unit of analysis in this study is diegetic sound and non-diegetic sound, which are indicators in film scoring. Collecting data in this study used content analysis of the *Pengabdi Setan* film. Data analysis in this study used the Miles and Huberman Analysis Interactive technique, which divided the steps in data analysis activities into several parts: data collection, data reduction, data presentation, and the conclusion drawing stage.

Data collection was carried out in documents, previous research on the same theme, film material, and various sources appropriate to the research problem. Data reduction is a form of analysis that sharpens, classifies, directs, removes unnecessary data, and organizes data so that conclusions can be drawn and verified (Miles et al., 2018). The product of data reduction is a summary of field notes from initial notes, expansions, and

additions.

The presentation of data is a series of information organizations that allows research conclusions to be carried out. The presentation of data is intended to find meaningful patterns and provide the possibility of drawing conclusions and providing action while drawing conclusions is part of a complete configuration activity (Miles et al., 2018).

There are two categorizations in the sound analysis process: diegetic and non-diegetic sound. Analysis will be carried out on several scenes in the First Act and the Second Act of the film. In the narrative structure of films, the story is generally divided into three main parts, the First Act and Second Act, which are considered important in sound analysis because it is in this part that the audience enters a horror atmosphere. In this section, character introductions, film world introductions, and conflicts begin to build. Diegetic and non-diegetic roles in this section are very important to bring the audience into the film world both cognitively and emotionally. Analysis was carried out with some hardware and software to capture in detail what was presented in the film. The film source comes from the Netflix platform, while the audio is captured by the audio interface with a 48kHz sample rate and 24Bit (Stereo) bitrate. The captured audio will be recorded in a Digital Audio Workstation (Logic Pro X) transparently without any processing to get authentic audio recordings. Then, researchers also use the stock plugin from DAW Logic Pro X, which is used

to analyze frequency and loudness, such as Channel EQ and Multimeter (Stereo). These plugins are needed to analyze the presence of sounds, especially non-diegetic sounds in the form of infrasonic sounds (beyond the range of human hearing, below 20Hz or above 20kHz).

RESULTS AND DISCUSSION

Combining visual and audio elements is a great discovery we can enjoy today. Indonesian Law No. 33 of 2009 concerning film states that film is a work of cultural art, a social institution, and mass communication media made based on cinematographic principles with or without

sound and can be performed. The presence of music in films is one of the essential elements to create an emotional impact on the audience. The score will highlight a scene, emphasize the atmosphere of a place or era, and underline and comment on human situations, which may emphasize certain dramatic situations (Phetorant, 2020). Film soundtrack music can provide more information about the narrative than the visual scene itself (Supiarza, 2022).

There have been many claims from the audience that music reminds them of a film they watched before. The soundtrack of the Marvel movies is widely known, and once listened to, the audience will remember a particular scene watched, including the Guardian of the Galaxy Volume 3 soundtrack. Marvel used popular music in the narrative strategically, and they were able to find popular music that would enhance the viewer's experience versus

throwing songs into the movie that would be a disconnect (Oakes, 2022). Music in films can also be acknowledged as film scores. Film scores are music specifically composed for films to convey and enhance a story.

Film scoring has been around since the 1940s, which began with the development of the film world. Initially, the film score took the form of a live orchestral performance accompanying a silent film screening. The combination of visual and audio elements at that time was a great invention. The combination is considered an inseparable unit. This combination brings the audience to a higher level of enjoying movies. They can feel and experience more deeply. Film scores continued to develop starting in the 1950s when there was a shift in the trend from silent films to films with sound until now.

Music score in relation to this research is a type of non-diegetic sound that specifically refers to the music written specifically to support the film. The music score creates the atmosphere, heightens emotion, and reinforces the narrative in the film. It is produced and recorded separately from the dialogue and other sounds associated with the production of the film. Score music can be used to provide a musical theme related to certain characters or situations in the film.

Discussions on scores in films are not only limited to making music but also as a substitute for the message of an image in music or sound. This statement confirms that the process of making a score in a film requires insight and

a broad and creative imagination. The authors of the film then explore the history of the use of music and film and discuss the benefits and disconnects that can occur by partnering with artists in films (Oakes, 2022).

Music scoremakers must master musical elements, such as timbre and interval, and must acknowledge the historical development of Western music. It can certainly add more value to film composers. Apart from that, Phetorant also explained that psychology is an element that film composers pay attention to. This argument relates to how to make pitch intervals that can evoke sad or happy emotions in the audience (Phetorant, 2020).

How about music scores in the film horror genre? Ninety-four years ago, a composer named Hans Erdmann managed to make a work directed by F.W. Murnau's titled *Nosferatu: A Symphony of Horror* becomes even scarier was wrapped in a somber orchestra; this film can liven up visuals that immediately haunt the eyes and ears of the audience (Haryanto, 2016).

Another phenomenal horror music score in Alfred Hitchcock's *Psycho* features a sounding climax concept perfect during the famous "shower scene" when Norman Bates starts stabbing Marion Crane erratically. Paired with loud visual cutouts from fast-moving blades, even sharper violin strings synchronize movement together. The resulting product is very expressive, as a musical phrase short that often indicates an imminent dramatic climax, which continues influencing the audience until

it reaches the end scene and becomes silent (Supiarza, 2022).

Choosing the right tone can make the audience more comfortable in watching films. Film music is one of the important genres in the 20th century. With music scores, we can see the composer inserting images into the music with his intuition. The combination of these reciprocal relationships between pictures and music is very unique. This is what makes the score so powerful and mysterious. Unfortunately, the film's score has not received serious attention from educational institutions in Indonesia (Phetorant, 2020).

This world naturally cannot be separated from sound matters. There is no place in the corner of this earth where there is no sound. However, some sounds are present to humans in the conscious world, while others are present to humans through the subconscious, like what we get when watching a film; our conscious and subconscious are presented with a presentation that combines visuals with audio as if they were attached and inseparable. These two things were prepared separately at the beginning of the film's appearance. In a film, sound is as important as visuals, and the two must go hand in hand to create the aesthetics of the film, along with elements of fictional representation and narrative within the film (Yacavone, 2012).

Visual impressions are prepared on a tape track containing pictures, and audio is prepared on a track containing sounds. Since then, the term "soundtrack" has been known, which

means one track that contains all the sounds from the beginning of the film to the end of the film.

The term soundtrack, often misinterpreted as an original song, is a term for all sounds heard in films. Over time, the term original soundtrack (OST) was used to repackage the music and songs created specifically for the film into one original soundtrack album package. This relates to the audio-visual industry, which opens up opportunities for the music-film business as a business that can stand alone.

The soundtrack is divided into two categories: the original score and the original song. Original score, also called film scoring or music scoring or later called just scoring, contains sounds in the form of music, dialogue, sound effects, foley, and ambiance during the film. Meanwhile, original songs are usually in the form of songs explicitly created for a film that has inherent characteristics of the film. One example of the original song entitled *Ada Apa Dengan Cinta*, abbreviated as AADC, was made specifically for the film titled *Ada Apa Dengan Cinta*, also abbreviated as AADC. The performance of music is an illustration of aesthetic reinforcement, not only in terms of the didactic functionality it expresses but also in terms of what it conceals (Samuel & Adejube, 2022).

As explained before, in film scoring, there are two types of good presence: diegetic sound and non-diegetic sound. Although diegetic sound is a sound that spectators hear, it can also

be heard in a film. Examples of diegetic sound in the film *Pengabdi Setan* are the voices of the actors' dialogues, the sound of the mother's bell, and the sound of the mother's music album, which in certain scenes is played on a gramophone record player. In comparison, the non-diegetic sound in this film is like illustration music, sound effect layers, and the experimental infrasound that he uses to add to the fear.

Diegetic sounds are more accessible for the audience to understand and are more likely to be processed at a conscious level. In contrast, the audience may need help understanding the non-diegetic sounds, or even their presence may not be realized by the audience. These two diegetic forms are distinguished by using the terms "onscreen" and "offscreen" (Lipscomb & Tolchinsky, 2005).

The authors sort scoring sounds included in the diegetic and the non-diegetic sounds categorized in the Table 1.

The exciting thing is the experimental element, namely the presence of infrasonic sound frequencies as non-diegetic, which generally cannot be heard by humans. The human ability to hear audio sounds is in the frequency range of 20Hz to 20kHz. In some conditions, humans may hear frequencies of more than 20kHz, but the ability to hear will decrease with age. The average adult human's hearing is only close to 15kHz-17kHz (Purves et al., 2001).

Based on that statement, the authors analyzed three parts of the film felt to have an emotional impact of fear on the audience.

Table 1 Distribution of Sound Categories

<i>Diegetic Sound</i>	<i>Non-diegetic Sound</i>
Dialog	Music
Mother's Bell	People whispering sound effect
The voice of the cast's body movements (footsteps, clothes rubbing.)	<i>The sound effects of sine wave sub-bass and infrasonic sound</i>
Vehicle sound in the film	The Song "Mala Pujaanku" (Mala, My Darling)
Ambiance sound (houses, cemeteries, highways, apartments.)	The Song "Karma"
Foley (household furniture, door opening and closing sounds, windows opening and closing sounds, grandma's wheelchair sound.)	
Foley (household furniture, door opening and closing sounds, windows opening and closing sounds, grandma's wheelchair sound.)	
Toni's radio sound+Music Illustration on the radio broadcast	
Mother's "ghost" voice	
The song "Kelam Malam" (Dark Night)	
The song "Diwajahmu Kulihat Bulan"(In your face, I see the moon)	

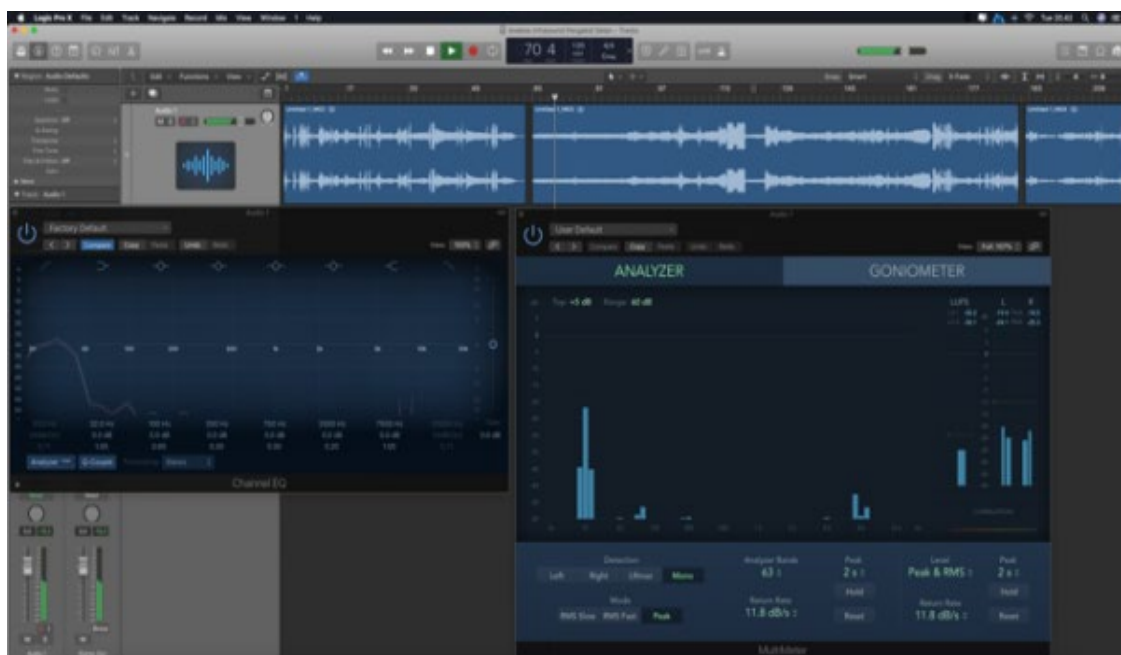
Source: Data Collection, 2023

In Figure 2, we can see that the frequency reaction on the analyzer still shows movement below 20Hz, and we can see that at 16Hz, audio is still detected. It is possible that below 16Hz, there are still other sounds, but with the limitations of the equipment used, the researchers only found audio movement up to 16Hz. In testing the frequency of this scene,



Source: Data Collection, 2023

Figure 2 Display of DAW Frequency Analysis Process (11.30 - 13.05)



Source: Data Collection, 2023

Figure 3 Display of DAW Frequency Analysis Process (14.02 - 17.20)

the infrasonic frequency is present there even though, in general, the human ear cannot hear it. The following analysis is in the next scene, where Rini hears Mother's bell (diegetic sound). Although Rini tried to go to Mother's room and found that Mother could stand up, it turned out

that it was the time when Mother died (14.02-17.20 minutes).

Uniquely in this scene, the audience was treated to scoring as a non-diegetic sound whose presence might not be realized as the sound of music or sound effects. The authors

analyzed this section and found it interesting that a frequency was added to give an emotional impact of “uncomfortable,” fears, and anxiety. The following is the result of the author’s analysis of that scene.

In this scene, Rini has little dialogue. Even at first, she walks from her room to her mother’s. In the scene before Rini enters Mother’s room, there is only diegetic sound in the form of Mother’s bell ringing, Rini’s foley walking, and the ambiance of night sounds. Even the scoring in the form of orchestral music needs to be presented in this scene. We can see in Figure 3 that a frequency is present and looks boosted at 31Hz. The audio ranged into six parts (Owsinski, 2022). The following table divides the frequency area according to Owsinski (See Figure 4).

The audio frequency that appears as a non-diegetic sound in this section is specific to 31Hz. In the frequency area distribution table above, these frequencies fall into the Sub-Bass category. The area had greater power to be felt than heard by human ears. Owsinski mentioned that the 31Hz frequency caused a “Rumble in the Chest.” Related to its need as a score that impacts the audience, this frequency is felt more as a feeling of discomfort, which can eventually lead to the impact of fear.

Music scoring in films has a distinctive role, which serves to strengthen, change, and add to the emotional content of cinematic narratives. “It is undeniable that a film score, in its typical role, serves to reinforce, alter, and/or augment the emotional content of a cinematic narrative” (Lipscomb & Tolchinsky, 2005).

RANGE	DESCRIPTION	EFFECT
16 – 60Hz Sub-Bass	Sense of power; felt more than heard	Too much makes the music sound muddy
60 – 250Hz Bass	Contains fundamental notes of rhythm section; makes music fat or thin	Too much makes the music boomy
250 – 2kHz Low Mids	Contains the low order harmonics of most instruments	Boosting 500 – 1kHz sounds hornlike; 1 – 2kHz sounds tinny
2kHz – 4kHz High Mids	Contains speech recognition sounds like “m,” “b” and “v”	Too much causes listener fatigue
4kHz – 6kHz Presence	Responsible for clarity and definition of voices and instruments	Boosting makes music seem closer
6kHz – 16kHz Brilliance	Controls brilliance and clarity	Too much causes vocal sibilance

Source: *The Mixing Engineer’s Handbook*-Bobby Owsinski, 2022

Figure 4 Table of Distribution of Frequency Areas

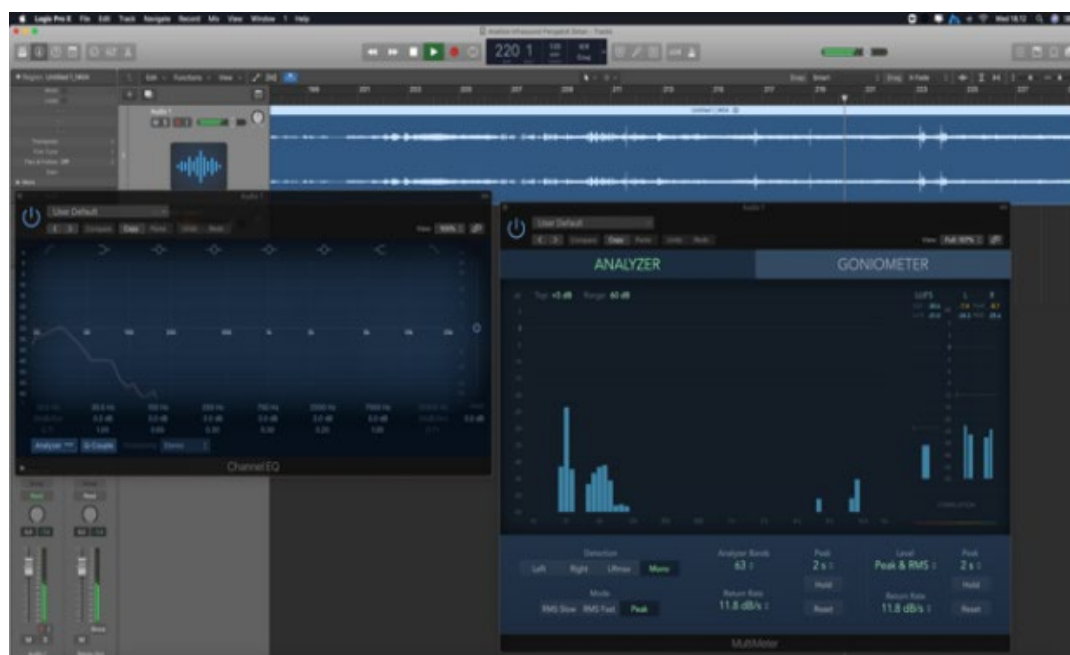
In addition to that, adjusting the volume level significantly altered the audience's perceptions of many fundamental story elements, such as inferences about the relationship, intentions, and emotions of the film's characters, their romantic interest in one another, and the scene's overall tension (Tan et al., 2017).

The presence of music in a film as non-diegetic gives a cue to the audience as to whether the scene in question is to be considered scary, romantic, or disturbing. In this capacity, the role of music stands out significantly due to the degree of ambiguity inherent in the visual scene. In particular, the more ambiguous the meaning of the visual image, the more influence the scoring has on interpreting the scene (Lipscomb & Tolchinsky, 2005). The third analysis that the authors did was at 31.45 - 33.50 minutes. This scene is when Toni is alone in his room listening to a radio broadcast; suddenly, he

hears Mother's bell, even though it was said that at that time, Mother had died.

In this section, a frequency of 31Hz is present as a feature in this film to indicate a scary scene. However, the researchers also found other frequencies around 62Hz. 60Hz is the boundary between the Sub-Bass and Bass areas, which is more audible as a rumble to the human ear. Therefore, the presence of a rumbling frequency of around 62Hz indicates that this scene must be paid attention to by the audience to get a surprise effect (Owsinski, 2022).

These three sample scenes can represent similar scenes where every scene has to be tense; specifically, the non-diegetic sound frequency of 31Hz is present as a scoring part in the film *Pengabdi Setan*. There is an opinion that film music is not to be heard (Burt, 1994; Gorbman, 1987; Lipscomb & Tolchinsky, 2005). Instead,



Source: Data Collection, 2023

Figure 5 Display of DAW Frequency Analysis Process (31.45 - 33.50)

it is believed to fulfill its role in communicating the psychological drama that underlies the narrative on a subconscious level. Therefore, the combination of roaring sound effects at 31Hz and 62Hz and music orchestration in every scene in this film is a complete experience for the audience to enjoy.

Diegetic sound in horror films has a significant role in creating tension and uncertainty. Sounds from within the film's world, such as footsteps or the sound of rapid breathing, can provide emotional attachment and trigger a cognitive reaction in the audience. These sounds are able to give a sense of reality and blend into the atmosphere of the film, making the audience feel more involved in scary situations. In some cases, diegetic sound can also function as a hidden hint or foreshadowing of impending danger, building the audience's anxious anticipation. The experience of the human body in receiving information through the senses, both visually and auditory, has the potential to arouse curiosity in the individual's mind, facilitating the recognition and increased memory of events that occurred. Stimuli, in the form of music and audio elements, are able to trigger inspiration and motivation in viewers, maintaining their involvement in watching films. Music or other forms of audio influence the audience because music/audio is a powerful medium that can convey non-verbal communication (Rv & Sambath R D, 2023). The combination of visual and auditory stimuli has the ability to influence the mood of the

audience. A crucial study conducted by Bolivar and colleagues from Dalhousie University (1994) demonstrated that the use of variations in background music can change the visual interpretation presented (Bolivar et al., 1994). This approach refers to previous research revealing the ability of individuals to connect and remember visuals when exposed to film songs or audio elements heard before. (Boltz et al., 1991). As happened in *Pengabdi Setan*, a "horror" atmosphere is created at the beginning of the film by playing diegetic sound in the form of songs and sounds that come from the world of the film, such as the sound of a bell, which is the distinctive sound of the horror theme in this film. The continuous ringing of the bell becomes a library in the audience's mind that there will be a scary scene a few moments later. Sounds in the form of diegetic sounds tend to be more accepted by the brain as cognitive stimuli. As previously stated, the diegetic sound in the first and second acts builds a horror atmosphere as the story develops, and the first and second acts are the right time for "incept." Inception is to instill ideas in the audience about diegetic sounds to become a visual amplifier for the scene. It means that all diegetic sounds will be understood cognitively and stored in memory as a frightening atmosphere.

Diegetic sound has a significant role in helping the audience build an understanding of the film's narrative. On the other hand, non-diegetic sound has a strong influence on the emotional response. Background music, sound

effects, and other audio elements can manipulate the audience's mood and emotions, which deepens their viewing experience. Non-diegetic sound is an audio stimulus without visuals or offscreen audio. In the film *Pengabdi Setan*, non-diegetic sound can stir up the audience's emotions and drown the audience in a sense of fear. As previously analyzed, in several scenes in the first and second acts, there are non-diegetic sounds in the form of background music and experimental sounds in the form of infrasound, which cannot even be heard clearly by the human ear but seem to be felt by the audience. Often, non-diegetic sound is captured by the audience through the subconscious. Non-diegetic sound in the form of background music and infrasound in the film *Pengabdi Setan* is in the area of surprising low tones that can stimulate the audience's emotional response in a way that is difficult to achieve by diegetic sound.

Non-diegetic sound is able to set the narrative tempo, direct the audience's focus, and create a feeling of constant threat. These sounds create emotional anxiety and provide a new dimension to the viewing experience by exploring uncertainty and surprise. In horror films, music, as non-diegetic sound, has a significant role and distinctive characteristics compared to other types of films. Through music, the viewers expand their experience of space and express the dimensions of time and place and even the psychological space of the characters. When expressions through language

and sound effects are sometimes unable to describe certain emotions associated with a tense atmosphere, the role of music has a very significant influence at moments like this. The musical language used in horror films involves many elements: melody, timbre, tonality, orchestration, rhythm, harmony, and so on. All of these elements have the ability to influence the development of the plot in a horror film (Gong & Zhang, 2021).

Non-diegetic sound elements are sound effects. In the film *Pengabdi Setan*, sound effects are an element to drive the audience's emotions into the dimension of fear in the audience's mind. The game of sound effects in the film *Pengabdi Setan* strengthens the horror scenes in the audience's subconscious. Often audience is unaware of the presence of sound effects that enter slowly, then increase the volume along with the music to illustrate the situation. As previously explained, in *Pengabdi Setan*, there is an infrasound as a sound effect. This type of sound effect cannot go through a single-layer recording but requires a number of multilayer recordings that are put together through sound effect production tools and specific plugins. This type of voice is often used to describe strange things. Because audiences cannot identify the horror elements in most horror films and are not visible in real life, the sounds of natural and social environments are not enough to convey these horror elements. Sound designers can only design special sound effects by relying on horror elements in physical form or internal meaning

so that the audience can feel the authenticity of these strange elements (Gong & Zhang, 2021).

CONCLUSION

After the authors analyzed three sample scenes in the film *Pengabdi Setan*, it was found that in the scoring in the form of non-diegetic sound, there is a phenomenon of the presence of infrasonic frequencies and the presence of sub-bass frequencies, which generally cannot be heard clearly by the human ear. These frequencies generally can only be felt as vibrations in the chest. In a film, the term soundtrack contains two things: scoring and original songs. Scoring, of course, contains not only music but all things that sound in the film, both in the form of diegetic and non-diegetic sounds.

The authors argued that the combined mix of these voices into a complex communicative form emotionally impacted the audience. Especially in this *Pengabdi Setan* film, the scoring role is enormous in several scenes, especially those without dialogue. In such scenes, the role of scoring is to emphasize the situation and complete the incomplete message symbols in the visuals. The combination of infrasonic sound effects, sub-bass, and music composition confirms the messages or symbols contained in the visuals.

Theoretically, this research can serve as a resource for future scholars interested in the study of diegetic and non-diegetic sound in films. Practically, this research can be used

by directors and cinema sound engineers to construct diegetic and non-diegetic sound in their films, particularly horror films.

Recommendations for filmmakers in the context of this research is that they can start researching sounds in films that are proven to be able to emphasize certain situations and complete incomplete messages in a film. Future researchers may also break down diegetic and non-diegetic sounds in other Indonesian horror films that could contribute to the success of Indonesian horror films.

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