

Let's Clear the Smoke: Fifty Years of *Smoke on the Water* in Music Education

Jan-Olof Gullö
Royal College of Music, Stockholm, Sweden

This paper was presented at the 44th International Summit of the
Music & Entertainment Industry Educators Association
March 23-25, 2023

<https://doi.org/10.25101/23.19>

Abstract

In December 1971, the British rock band Deep Purple recorded *Smoke on the Water*, which became a global hit and significantly contributed to the band's popularity. This study aims to investigate the reasons behind the song's success, such as its inherent values, composition, lyrics, or music production design, as well as other potential explanations. We also study *Smoke on the Water's* impact on music education. We interviewed music teachers, producers, students, and musicians from different countries to accomplish this. The study also relies on insights from interviews with Deep Purple members, observations made during concerts and study visits, and external sources. The study finds its theoretical basis in cultural psychology, education, economics, sociology, and musicology theories. The findings highlight the significance of understanding the fundamental elements of a song, which aspiring artists, musicians, and music producers should consider if they want to reach a broader audience.

Keywords: higher education, mobile recording, music education, music industry, music production, *Smoke on the Water*

Introduction

On December 4, 1971, the casino in Montreux caught fire. During a concert with the American artist, songwriter, and music producer Frank Zappa, a concertgoer shot a pyrotechnic projectile. Although the reason for this action is unclear, its impact was severe. The flare gun ignited parts of the concert hall's interior, and the venue burned down. Fortunately, there were no casualties.

The fire at the Montreux casino significantly affected many, including the British rock band Deep Purple. They had planned to record their new album in the concert hall destroyed by the fire. As a result, they had to reschedule their recording sessions. During their stay in Montreux in December 1971, the band members composed and produced the song *Smoke on the Water*, which was included in

their album *Machine Head*. The song lyrics clearly describe the circumstances surrounding the production work:

We all came out to Montreux on the Lake Geneva shoreline
To make records with a mobile, we didn't have much time
Frank Zappa and the Mothers, were at the best place around
But some stupid with a flare gun, burned the place to the ground

Smoke on the water
a fire in the sky
Smoke on the water

They burned down the gambling house, it died with an awful sound
Funky Claude was running in and out, he was pulling kids out the ground
When it all was over, we had to find another place
But Swiss time was running out, it seemed that we would lose the race

Smoke on the water...

We ended up at the Grand Hotel, it was empty, cold and bare
The Rolling truck Stones thing just outside, making our music there
With a few red lights and a few old beds, we made a place to sweat
No matter what we get out of this, I know, I know we'll never forget

Smoke on the water...

(Lyrics by Jon Lord, Ritchie Blackmore, Ian Paice,
Ian Gillan, and Roger Glover)

Initially, *Smoke on the Water* was not a hit. The record label did not promote it, and Deep Purple did not consider it an important song. After the album *Machine Head* was released in March 1972, they rarely included it on the set list in their concerts. But *Smoke on the Water* reached a turning point when Deep Purple recorded a live album in Japan in August of 1972, which featured the song. Initially produced for the Japanese market under the title *Live in Japan*, this album was later released as *Made in Japan* in December 1972 in the U.K. and April 1973 in North America and thereafter worldwide. It received widespread praise from both audiences and critics. The album achieved high chart positions in numerous countries and enjoyed widespread distribution worldwide. Later the famous track

Smoke on the Water was globally released as a single in both studio and live versions.

Smoke on the Water may have been created long ago, but it remains a popular song. Deep Purple is still active today in 2023 in recording and touring. Three of the original five band members who recorded *Smoke on the Water* in 1971 in Montreux and 1972 in Osaka are still performing with the band. *Smoke on the Water* has been played at over 2,100 concerts, including their most recent show in Sweden on October 6, 2022, where it was played before the band was called back for an encore by an enthusiastic audience.

Considering the circumstances, it's essential to understand why *Smoke on the Water* became so widely loved. Is it due to its inherent qualities? Perhaps it's the riff, the melody, or lyrics, or how the music was produced. Could it be a combination of these elements? Are there any other reasonable explanations? Furthermore, it's worth examining the influence of *Smoke on the Water* on music education and determining if there are any beneficial insights for future music production and educational endeavors that can be gained from studying it.

A significant challenge in studying completed music productions is the need for more sufficient documentation. Many professionals, including music producers, sound engineers, artists, musicians, composers, lyricists, arrangers, publishers, and record company representatives, contribute to the design of a record production. Unfortunately, documentation is rarely done systematically, and source material is often incomplete. Even if it's possible to interview those involved, there is a risk that they may consciously or unconsciously omit essential aspects. Hence, analyzing a music production in-depth, like in this study, is a real challenge.

Together with my colleagues at the Royal College of Music in Stockholm, I have conducted this study on *Smoke on the Water*. This paper delves into some essential elements of our research. The study finds its theoretical basis in the American psychologist Jerome Bruner's nine tenets, all highly relevant for research in music education (Bruner 1996), supplemented by other theories in economics, sociology, and musicology. The empirical design includes interviews with music teachers, producers, students, and musicians from different countries. The information presented here is primarily based on my interviews with Deep Purple members and observations made during concerts and study visits. We have also supplemented this with external sources.

The Lyrics and Music in *Smoke on the Water*

I began studying the topic because I frequently use *Smoke on the Water* when teaching music production. This

is because the lyrics describe a music production. On many occasions, in different countries, I have asked students, often in large groups, if they know the *Smoke on the Water* song. Almost everyone has raised their hand. When I ask if they have played it, many have raised their hands, and when I have asked if they have sung the song, many often show that they have done it. But when I've asked what the lyrics are about, virtually everyone immediately takes their hands down. Only on a few occasions have participants been able to reproduce the lyrics or tell us what the lyrics are about. This indicates an approach expressing a value hierarchy between parts of the artistic content. The students have shown that they know the musical content but don't know the lyrics. Also, on a few occasions, students have even said that the lyrics in *Smoke on the Water* have no meaningful content and that it consists only of words that sound good in themselves and are fun to sing but lack meaning. Many have shown and said they were surprised when they read and analyzed the lyrics and understood that the song is about producing a record.

When I started doing this exercise many years ago, I didn't think it would lead to research. Instead, it was a rhetorical trick that I used in my teaching to focus on different parts of the content of a record production. Gradually, I began to see a pattern. And this pattern indicates that music production students often focus on the musical content rather than the whole, including the lyrical content and the meaning of the text as well as the possible connotations of the text or how the lyrics and music are connected. When considering students' perspectives, it's crucial to analyze the underlying reasons for their beliefs. It's worth recognizing that their music education, particularly for those with comparable educational experiences, may have had a significant impact on their viewpoints. And even if artists, musicians, and music producers are well-educated, they may find it challenging to gain a larger audience beyond their social circle if they fail to recognize that a song, like *Smoke on the Water*, is a complete work of art that should not be broken down into its individual musical or lyrical components.

The Recordings in Switzerland 1971 and Japan 1972

A *Smoke on the Water* project sub-study focuses on the importance of technical equipment for the sounding result. The equipment used in Montreux in the recording of *Machine Head* was of the absolute highest class: the Rolling Stones Mobile Studio. This mobile recording studio, the first of its kind, was primarily used to record the Rolling Stones but was also used in other recording projects.

The Rolling Stones Mobile Studio, which was effectively a control room mounted on a truck, was designed acoustical-

ly by Sandy Brown, who was acoustic chief designer at the British public broadcaster BBC at the time. The technical equipment was exceptional. The mixing desk was specially built by Dick Swettenham at Olympic Studios/Helios. The collection of microphones comprised over one hundred high-quality models like Shure SM58s, SM81s, and SM7s, AKG D25s and C34s, Neumann U47s, U67s, U87s, and a stereo SM69, among others. Additionally, there were two tape machines, a 16-track 3M M56 2" multi-track recorder, and an Ampex AG440 8-track, which served as a backup. The Rolling Stones Mobile Studio was used in many live recordings from concerts and in many so-called studio productions where concert halls or other acoustically suitable rooms were used as recording spaces. Assuming there was an excellent venue to record from, the Rolling Stones Mobile Studio provided everything else needed to make high-quality recordings.

The casino fire on December 4 made it impossible to make any recordings there. On December 6, the recording team gained access to *Le Pavillon*, a smaller venue in downtown Montreux, near the burnt-down casino. Recording began in the evening and continued through the night of December 7. Unfortunately, neighbors were disturbed by the noise, and the police were called to interrupt the work. Before being forced to stop, the recording team managed to capture an ensemble take with drums, bass, organ, and guitar. The song idea was based on a simple riff contributed by the band's guitarist, Ritchie Blackmore. Although the recording had no title, it was referred to as *Title No:1* and put aside. Later, it was used as the basis for *Smoke on the Water*.

To ensure no neighbors were disturbed, the continued recording operations were moved to the slightly more remote Grand Hotel, temporarily closed for the season. In addition, the acoustics of the room used for the recording were a real challenge for the participants. Equipment was rigged up in one corridor, and the acoustics were improved with mattresses and other sound-absorbing materials. All the songs on the *Machine Head* album were recorded at the Grand Hotel, except for the ensemble take of *Smoke on the Water*.

In the final stages of the production work, ahead of the mixing, Deep Purple's recording engineer Martin Birch noticed that the record was relatively short and suggested they make something of *Title No:1*. Singer Ian Gillan wrote the lyrics in the verses. Bassist Roger Glover provided the chorus lyrics: "Smoke on the Water". After that, the vocals were recorded. The guitar solo was also recorded in the Grand Hotel. It is worth mentioning that Martin Birch accomplished the mixing of the entire album *Machine Head* within only two days, on December 20-21, 1971. He did this on-site in Montreux using the Rolling Stones Mobile Studio.

The album *Made in Japan* was recorded in Tokyo and Osaka in August 1972. However, the technical equipment available in Japan was of lower quality, unlike the recordings made in Switzerland. Additionally, the recording conditions were challenging. As a result, the recording engineer, Martin Birch, had serious concerns about the quality of the recordings. However, this uncertainty may have contributed to the high artistic quality of the album. The band members showed little interest in the result, and the plan was to publish the album only for the Japanese market. Instead of worrying about the recording quality, they focused on delivering good concerts to their audience. This attitude contributed to the spontaneity of the performances and the interaction between the band members being well captured on the recording. It was the first live rock album of its kind, and it clearly shows the difference between a band in the studio and a band live. *Made in Japan* was successful in many countries and is still considered by many as one of the best live rock albums. It ranked 32nd on the list of the fifty best live albums ever by the American music magazine *Rolling Stone* in 2015 (Currin 2015).

The analysis of the two music productions mentioned above suggests that the quality of technical equipment plays a crucial role in the final sound and can impact the overall artistic outcome. However, it does not necessarily mean that there is a direct correlation between the two. For us teachers, it is essential to consider how our students navigate different perceptions of equipment quality. This can come from the media, fellow students, and even us teachers. It can be challenging for students to discern what is good and what is not. Our objective is to assist students in acquiring independent skills to assess technical and artistic quality, enabling them to make reliable decisions. This can be achieved by empowering them to take control of their thinking.

Smoke on the Water in Music Education

Smoke on the Water is also relevant to music education in more ways. The basic guitar riff of the song is easy to learn and has attracted many, especially boys and young men, to play the guitar. And even today, fifty years later, it is common for pupils and students to know this riff and happily show it to their teachers when they start taking music lessons. How can that be? What about the musical structure of that riff makes it so enjoyable to play?

In interviews, members of Deep Purple revealed that the completion of *Smoke on the Water* was almost compromised because the iconic riff was deemed too simple. Ritchie Blackmore, the guitarist who came up with the riff, may have been reluctant to play it because he felt it was too simple or thought others might view it that way. There is evidence that *Smoke on the Water* caused problems for

Ritchie Blackmore. During a Deep Purple concert in Malmö on June 18, 1985, *Smoke on the Water* was played as the final encore, but to the surprise of many, Blackmore exchanged instruments with bassist Roger Glover, and there was no guitar solo. Similar incidents occurred during three shows in Stockholm a few days earlier. In one of these concerts, Blackmore was absent during the performance of the song.

To better understand why some musicians, producers, and others in the music industry may view more straightforward music as less valuable, it's essential to explore the underlying reasons. Is there any research to support this belief? Has it become a common practice in certain music education circles? Are there any cultural traditions that may contribute to this perception?

Final Reflections

For many of us music production teachers, and probably for many other enthusiasts, learning about the history of essential music productions can significantly enhance our understanding and skills. When examining older music productions, we must ask what we can learn from their methods. This is especially relevant when studying music productions that gained significant popularity. Which aspects played a crucial role in their success? Are there any lost techniques or approaches that can be applied today? By analyzing these methods from a subject-didactic learning perspective, we can gain knowledge that will benefit current music production students.

References

- Bruner, Jerome. 1996. *The Culture of Education*. Cambridge: Harvard University Press. <https://doi.org/10.4159/9780674251083>.
- Denyer, Ralph. 1983. "The Rolling Stones Mobile." *Studio Sound*, May 1983: 44-46.
- Currin, Grayson Haver. 2015. "50 Greatest Live Albums of All Time: 32 Deep Purple, 'Made in Japan' (1972)." *Rolling Stone*, April 29, 2015. <https://www.rollingstone.com/music/music-lists/50-greatest-live-albums-of-all-time-173246/the-replacements-the-shit-hits-the-fans-1985-154247/>.
- Herbst, Jan. 2022. "Martin Birch-Catalyst: The Pivotal Role of Deep Purple's Sound Engineer on the Classic Mk. 2 Albums." In *Who Do We Think They Are?: Deep Purple and Metal Studies*, edited by Andy R. Brown. Sheffield, U.K., Equinox Publishing.
- Massey, Howard. 2015. *The Great British Recording Studios*, Rowman & Littlefield/Hal Leonard Books.

- Priddey, Neil. 2014. *Purple Records 1971–1978*. Lulu Press.
- Thompson, Dave. 2004. *Smoke on the Water: The Deep Purple Story*. Toronto, ECW Press.



Jan-Olof Gullö is Professor in Music Production at the Royal College of Music, Academy of Folk Music, Jazz and Music and Media Production in Stockholm, Sweden. Gullö has a professional background as a musician, double bass/electric bass, record producer, and television producer. Although he was active in sports television production for many years in the 1990s, he has mainly worked with music and music production and in the last twenty years also as a researcher and teacher in higher music education.



PROCEEDINGS
OF THE
44TH INTERNATIONAL SUMMIT

OF THE
MUSIC & ENTERTAINMENT
INDUSTRY EDUCATORS
ASSOCIATION



LAS VEGAS 2023

March 23-25, 2023 • Embassy Suites by Hilton Las Vegas