# Thinking about Noise

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**Abstract**
The genre noise music does not have a proper definition. There is noise music, for example the work of Merzbow, which lets the listener feel the sound or rather the borders of listening. Additionally, there is Noise Music consisting of equivalent sounds (e.g. hiss, crackling, feedback) without performing on high volume, which is often considered as main parameter for Noise Music.

Adjectives related to the phenomenon Noise Music vary (unwanted, dangerous, distracting, bad…) (Hegarty 2007). The common definition of noise as 'unwanted sound' (ibid) pushes the definition of music – taken it to the extremes – towards being 'wanted sound'. Confronted now with the term *noise music*, a paradox begins to evolve.

However, every approach to dealing with Noise Music conceals the underlying assumption, that there must be an empirical perception of noise and therefore a judgement, which is implicit in the word noise (as this is already a judgement) (Hegarty 2007). This empirical perception requires an observer, a person or rather a system, which perceives noise (cf. Luhmann's system theory). While Hegarty identifies noise as a relationship between listener and environment and (somehow in a self-contradiction) at the same time as emptier of this relationship (Hegarty 2001), it is possible – using Luhmann's theory – to identify both as a system, including the observer as an own system.

This paper will show different ways of dealing with the "problem" noise music. Without judgments and inevitable interrelated aesthetic discussions, it will reflect on system theories by Niklas Luhmann as well as on George Spencer Brown's *Laws of Form.*

## Introduction

> In this world nothing can be said to be certain, except death and taxes. (Benjamin Franklin 1789 in a letter to Jean Baptiste Le Roy)

This article is – as the title underlines – rather a picture of a thinking process. I have been thinking about the relationship between noise and music on the occasion of developing a tutorial about noise music for the EARS II curriculum[1]. While doing that so many questions about the classification of noise music came into my head. For some of them I have been able to find an answer, for some I have not found a proper answer yet. So I finally thought it would be good to provoke further discussion which is what this article intends to do.

## 1 Problem of definition

What exactly is noise music? Although it has been existed for a long time there is still a lack of (a) definition(s). The fundamental question is: How can something be music, if it is noise? Furthermore, what is noise?

Along with this: What is music?[2] Is it, as Varèse defines, *organised sound*? Can noise music then be described as *organised noise*?

Looking up the entry *noise music* on the ElectroAcoustic Resource Site (EARS) the following definition can be found:

> 'This term appears as a category rather than genre, and is designed to bring together bibliographic entries which approach as a thread the use and nature of noise in contemporary music from the Futurists and Dadaists, Cage, musique concrète, experimental rock music, punk, sound art, live electronics and electronica to the present day.' (EARS Entry Noise)

Although there are a many genres in contemporary music using noise as one of their elements, these shall not be the focus of this paper. More of interest is music which consists entirely of so-called noise (such as hiss, crackling or feedback sounds). Considering this the definition on the EARS website does not reveal the secret about noise music. Consequently it is necessary to think further on this problem of a suitable definition.

The following examination of the relationship of noise and music is based on three assumptions, which will be explained one after another through this paper.

**Assumption 1: Noise and music are not the same.**

Implicit in the use of the word 'noise' is the hypothesis, that noise is not music. A common definition is: Noise is unwanted sound.

> 'Noise is negative: it is unwanted, other, not something ordered. It is negatively defined, i.e. by what is not (not acceptable sound, not music, not valid, not a message or meaning), but it is also a negativity. In other words, it does not exist independently, as it exists only in relation to what it is not. In turn it helps structure and define its opposite (the world of meaning, law, regulation, goodness, beauty, and so on).' (Hegarty 2007, p. 5)

Thus if noise is defined as unwanted sound, and music and noise are not the same, does this imply that music is automatically wanted sound? What is *unwanted* though? That nobody wants to hear it? And – taken it consciously to the extremes – is then this music that I hear every night from the pub downstairs noise? Does it depend on how I listen to sounds? Which role does intention (of perception and/or creation) play in this somewhat confusing problem?

Considering these questions and that answers are not obvious it is time to bring a bit order into the discussion. This will be done with the help of systems theory according to Niklas Luhmann[3]. Despite all these problems stated above, it can be said:

Both music and noise belong to the system sound. They can both be disturbing; music can flip into being noise as soon as the person who

perceives this music does not want to listen to it and vice versa. Since in the very moment unwanted sound is called music, it does no longer belong to the category noise. (Which does not solve the problem of 'noise music', where noise is presented in a musical setting.)

Music and noise can still be distinguished from one another, though both commonly consist of sound. Figure 1 shows this relationship of sound, noise and music (based on a systems theory approach):

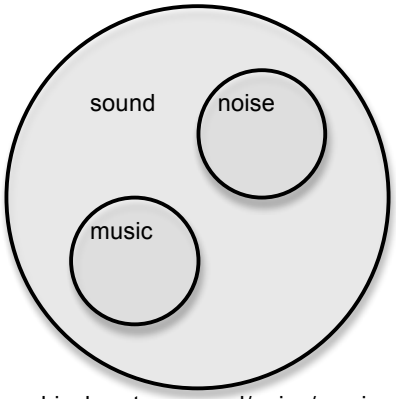


Figure 1. Hierarchical system sound/noise/music

The following discussion of this topic is based on the rules of systems theory by sociologist Niklas Luhmann and is influenced by thoughts of the *Laws of Form* by mathematician George Spencer Brown in order to achieve a better understanding of the relationship of sound, noise and music.

Systems theory is an interdisciplinary field of science used to observe the world as a framework of multiple systems. There are mechanical systems (for example a machine or any kind of apparatus), but also social systems (such as communication) or psychic systems (such as perception and thoughts). Social and psychic systems are interdependent, thus thoughts influence communication and – therefore – communication influences thoughts. According to Luhmann's book *Die Kunst der Gesellschaft* (1997[4]) art is defined as a social system. Music belongs to art and can for that reason be defined as a social system. Which implies, that it is also a form of communication as the composer (or performer of an improvisation) transforms their thoughts (i.e. psychic system) into a description of these thoughts (for example language, i.e. communication, i.e. social system).

The central problem is: There are two systems – *music* and *noise* – and there is the term *noise music*, which implies that there is a combination of these systems. If noise, which is different from music, is defined as unwanted sound: What happens if one chooses to make music from unwanted sound? In the moment of choice this 'unwanted' sound turns into wanted sound and the definition can no longer apply to the term. The result: a paradox. This cannot be. There is either noise or music; and if it is differentiated it cannot be the same.

## 2 Paul Hegarty

Other researchers have approached the relationship between noise and music already. Paul Hegarty discusses in the first chapter of his essay *Full of Noise* the problem of the definition of noise. However in reading this definition and comparing that to his other writings some problems start evolving.

> 'Noise, then, is neither the outside of language nor music, nor is it simply categorisable, at some point or other, as belonging exclusively to the world of meaning, understanding, truth and knowledge. Instead, noise operates as a function of *difference*.' (Hegarty 2001)

Noise is neither the outside of music nor of language. That means noise cannot be excluded neither from music nor from language. It is not categorisable, but it belongs exclusively to the world of meaning, understanding, truth and knowledge. Besides, noise operates as a function of difference.

Still, there are open questions: Between *what* does noise function as a difference? How can noise be a difference? It can be different; but there is no difference, as a differentiation always needs something to be differed from. What is that in this case?

Hegarty's quote leads to a second assumption: Noise operates as a function of difference. Although it is still not clear, what he means by that. It, furthermore, needs to be stressed that this is not a definition of noise, but a definition of the *function* of noise.

**Assumption 2: Noise operates as a function of difference**

Having said that, the following passage uncovers even more problems:

> 'If this term is what indicates and is subsequently elided, in/as the play of inside and outside (of meaning, truth, language, culture…), then we can form another binary with identity on one side and *difference* on the other – that difference is both one term in the binary, and that which is the operation of the binary. This is what noise is/does/is not.' (ibid)

To understand this section a closer look is necessary: The opposite of *identity vs. difference* is mentioned including '*vs'* which is the operation. Additionally, *difference* is also the operator of this binary, which causes – again – problems.

In a binary two sides are required, which are not the same. This could be 'one or zero', 'apple or pear', 'ice cream or coffee' and so on. The process of distinguishing between them creates the binary. For example, if there are a lot of cushions on a sofa, it is either possible to say: There is the sofa, and there are the cushions. Or one can say, this cushion is different from this cushion. Before all cushions were just cushions, but after it you can start to investigate the uniqueness of every single cushion – in distinguishing it from the other.[5]

Nevertheless, the dilemma is: Hegarty describes noise not only as something that is different to identity, but also as the difference itself. This is paradoxical and therefore within the rules of logical systems (based on binary logic) not possible:

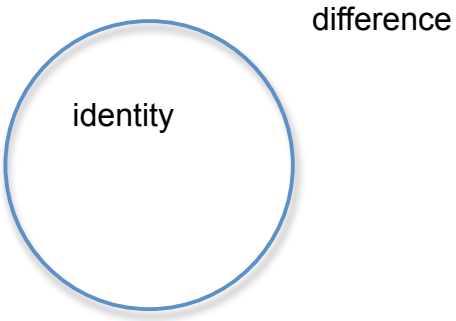


Figure 2. Relation of identity and difference

The border of the circle is the operation. If the operation is the same as outside or inside of the circle, there is no border. There are just two sides, and it is not even possible to say, that there are two sides, because *two* assumes a border between one and the other. So if there is no modus operandi to distinguish inside and outside, there is no more than chaos.

Referencing Douglas Kahn, Hegarty writes:

> 'Noise drifts across the binary empirical/abstract, such that "when noise itself is being communicated, […] it no longer remains inextricably locked into empiricism but it transformed into an abstraction of another noise"[6] In other words, noise is (taken to be) empirical, belonging to the world that is there in itself, a world of sounds without conscious sources […] then noise becomes second order: a demonstration of the noise that subsists beyond.' (ibid)

To what extent can *empirical/abstract* be called a binary? Can *abstract* be the opposite of *empirical*? Is it not possible to perceive abstract phenomena also empirically?

Noise can be transformed into an abstraction of another noise. What does this mean? An abstraction of another noise surely must be something different, because transforming something to the same does not change the result[7]. So there might be different noises, distinguished from each other? This route unfortunately does not lead anywhere.

However, what Hegarty means is: as soon as someone communicates about noise, it will be transformed into something new. Considering systems theory again, this is quite logical, because perception is never equal to communication[8]. Another important statement in this passage is that noise is taken to be empirical. Which leads us to a third assumption: There is an observer.

**Assumption 3: There is an observer.**

This is a fundamental assumption that is made implicitly within this paper. Interestingly, this does not only become apparent in the previous quote from Kahn and Hegarty. In Hegarty's book *Noise/Music. A history* the following is written:

> 'Noise is not an objective fact. It occurs in relation to perception – both direct (sensory) and according to presumptions made by an individual.' (Hegarty 2007, p. 3)

This shows clearly that not only noise is different for every individual, but also in that someone or something must be there to perceive noise. Furthermore, using system theory's terminology: a psychic system needs to observe noise.

Only one page later Hegarty points out:

> 'Noise is a phenomenology of noise, insofar as it exists in relation to individuals, who define themselves as being subject to noise […]' (ibid, 4)

In *Full of Noise* footnote 18 we read:

> 'Noise is not *difference* – it is an emptier of links, relation, process, not that, which holds them mysteriously together.' (Hegarty 2001, FN 18)

This is interesting. In 2001 Hegarty argues noise is not difference, and in 2007 mentions noise functions as *difference*. Moreover, if noise exists in relation to individuals, it cannot be at the same time the *emptier* of this relation.

## 3 A summary

So far three assumptions have been pointed out:

- Music and noise are not the same.
- Noise functions as a difference.
- There is an observer.

The first assumption is not questionable. The second assumption does not work with the quotations stated above. Finally, the third assumption needs a bit more clarification:

It was already described that (noise) music belongs – regardless how it is defined and whether it is paradox or not – to the system of art. Along with this statements goes the question: How does something become art?

Art is a social system. Social systems are defined as communication. The social system art communicates with perception instead of words. How does this work?

For example: A composer observes the material, which means nothing else than to draw a distinction between useful and not useful material. In the process of composing he or she transforms it into a new system – the composition. This is a first order observation. The reception of this composition is then not only a second order observation but also the crucial element of the communication. The second observer observes the observation of the first observer. Communication without words, but with perception.

It is also explainable with George Spencer Brown's *Laws of Form*. Composing can be seen as a change between marked and unmarked space. Of all material on the world the composer chooses for something and marks it. In this moment a distinction is drawn and two sides are created – useful and not useful material or marked and unmarked space.

The crucial point is – there is always an intention behind the action of the observer. Luhmann does not deal with this intention, as in his theory the only intention of a system is surviving and the observer is "just" another system consisting of social and psychic systems. Spencer Brown needs the observer as the moment, which is drawing the distinctions on which the *Laws of Form* are based, but as far as it can be said – intention does not play a major role for the calculus, as it does neither matter, why the observer is drawing a distinction nor if this action was intended.

Returning to the initial problem of finding a definition for noise music, what of this journey looking into noise music based on the philosophy of science is actually helpful?[9]

Noise is unwanted sound.

What does *unwanted* mean? It could mean: I don't want to hear this sound. However, supposing there is more included in the word *unwanted*, there is also this moment of not being intended. Noise comes along with other things, for example feedback sounds, which were not intended in the first place and therefore disliked and not considered to be music.

Defining music in a very broad way as organised sound, noise music can be defined as organised sound that uses sounds, which are

- originally not intended (noise which comes along with other things) (or not intended to be music).
- often disliked.
- not to be considered as music.

Especially the latter point brings into account that intention is very important. How does an observer perceive sound? What is the intention behind the composition? What is communicated in a noise music piece?

All these questions are not only very interesting but also partly unsolved, like for example the paradox of noise becoming music mentioned above. However, as stated at the beginning I see this paper as a starting point for further discussions about the relationship between music and noise.

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[1] The pedagogical ElectroAcoustic Resource Site project is based in the ElectroAcoustic Resource Project (see http://ears.dmu.ac.uk) at the Music, Technology and Innovation Research Centre of De Montfort University Leicester. Further information can be found in Wolf 2008b.
[2] One of these questions musicologists normally desperately try to avoid.
[3] See Luhmann 1996 as well as Luhmann 1997/2000.
[4] English translation: Luhmann 2000: Art as a social system.
[5] This is a form of constructivism, but it helps to approach problems differently. Thinking about language: A description is always the trial to distinguish one thing from another or – in case there is no need to distinguish – to give similarities.
[6] Kahn 1999, p. 25.
[7] See second axiom of George Spencer Brown's Laws of form.
[8] For more information see Niklas Luhmann's distinguishing between psychic system (thoughts, perception) and social system (communication), for example in Luhmann 1996.
[9] For another approach to apply the philosophy of science to musicology (based on Luc Ferrari's music) see Wolf 2008a.