

## 'DIRTY LIGHT': APPROACHING LIGHTING IN AUDIO-VISUAL CONTEXTS BEYOND ITS MATERIAL-IMMANENT PROPERTIES

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### ABSTRACT

In this paper I am going to address a specific question concerning the compatibility of sound and light as a generic visual medium. The focus will lie on the question whether a form of 'dirty light' as a corresponding form to 'sonic noise' is imaginable.

The musicalisation of noise is a prominent aspect of the development of music in the 20<sup>th</sup> century. The same can be said of the inclusion of non-artistic materials in art objects in the field of visual arts, as opposed to the traditional ones like paint on canvas. However, these analogies cannot be easily applied to light as an artistic medium, since light is characterised by purity and can neither incorporate extraneous materials, nor can it be rendered dirty. In an artistic work which attempts to find correspondences and compatibilities between the media of sound and light, noise therefore poses the biggest challenge since a direct translation into the visual domain does not seem possible. However, by applying a semiotic approach and conceiving light as a symbolic form rather than a medium that is characterised by specific 'material'-immanent properties, a form of 'dirty light' becomes very well conceivable.<sup>1</sup>

### 1. NOISE AND DIRT

When investigating the notion of dirt in societies, it can be said that hygiene and pathogenicity only play a secondary role. Rather, the idea of dirt reflects a certain order, which is to be maintained. Dirt is not an isolated event but an expression of a system with a set of ordered relations and a contravention of that order. Therefore, dirt is the by-product of a systematic classification of elements in the environment, in so far as ordering involves rejecting inappropriate parts (Douglas 1966:5).

In much the same way in which dirt is not an isolated event but a result of a system of ordering, the meaning of noise in music has not been a stable one but has constantly shifted through history. Especially the history of music of the 20<sup>th</sup> century can be read as an ongoing redrawing of the line that separates musical sound from noise.

In order to comprehend a notion of 'dirty light', I will propose to analyse light and sound as a 'symbolic form'.

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<sup>1</sup> In video art, 'visual noise' is an established term. It is important to point out, that it does not apply to lighting, as 'visual noise' addresses phenomena that are mainly either related to the resolution of images and artifacts due to conversion, or inconsistencies of color fields. These phenomena are specific for the medium video and therefore cannot be transferred to the more generic medium of lighting.

## **2 TOWARD DIRTY LIGHT, SOUND AND LIGHT AS SYMBOLICALLY CHARGED IDIOMS**

As mentioned above the inclusion of sounds or materials in artistic works that have formerly been perceived as unacceptable has been a driving force in the development of music and visual arts. This was especially obvious in the 20<sup>th</sup> century, although it can be observed as a stimulating principle in much of the history of Western art.

When comparing sound and light, it becomes apparent, though, that light – as a medium – is reluctant to be placed within a polarity that distinguishes purity from dirtiness. Rather, purity seems to be an aspect that is in the very nature of the immateriality of light. In other words, light can neither be rendered dirty, nor can it expand its boundaries by including elements that were previously not part of it, in a way as music can internalise noise or visual art can incorporate “non-artistic” materials. This pure aspect of light is probably one of the main reasons why it has cross-culturally often been associated with the divine.

When working with light in the context of contemporary composition, sounds with noisy qualities – in the many different forms that they can take – are likely to play a part. The following section asks the question if there is any such thing as ‘dirty light’ that can serve as a corresponding element in the visual domain?

## **3 CONTEXTUAL AND LIMINAL NOISE**

In this paper I am developing a set of categories of noise, where the terms noise and dirt could be used interchangeably, since the underlying meaning of both of them is the same, while noise rather refers to sound and dirt to matter. The following differentiation of noise is therefore equally applicable to aural as well as visual phenomena.

In order to get a better understanding of the different qualities that noise or dirt can take in the context of sound and light, I propose to distinguish between three categories of noise. In this section I am going to introduce two of them: *contextual* and *liminal* noise.

Contextual noise is best described by what Mary Douglas wrote about dirt:

There is no such thing as dirt; no single item is dirty apart from a particular system of classification in which it does not fit (Douglas 1966:xvii).

Hence, within a particular system, dirt is defined by not being part of it. It cannot be thought as an absolute value or condition. Dirt is what is excluded from a set of order, since order includes the rejection of inappropriate elements (Douglas 1966:44). Therefore dirt depends on relationships that are inherent in a system, in other words: it depends on the context. When working with sound and light, the term *contextual* noise describes the use of any material – musical or visual – that contradicts a certain order that has been established. What noise or dirt becomes in one context can be part of the accepted order in another.

Helmut Lachenmann’s composition Accanto (1975/76) for clarinet, orchestra and tape serves as a good example to illustrate this. Lachenmann wrote this piece in reference to W.A. Mozart’s Clarinet Concerto K.622. In Accanto the sonic texture is dominated by the use of instruments with extended techniques, which yields a very differentiated

palette of noisy sounds – noisy in the sense of primarily non-pitched sounds. A tape part is also included in the composition, which consists of an original recording of Mozart's Clarinet Concerto. That concerto is also the conceptual provenance of the orchestral material of Accanto. For an extended period of time the tape is only turned up for fractions of a second. Thereby it appears as short sonic bursts, too short to make the actual content recognisable. The first moment when the tape is played for a longer passage is at m.192, about 17 minutes into the piece, which has a total duration of approximately 27 minutes. Here, the utterly harmonic music of Mozart becomes recognisable. As the listener has become used to the abstract sonic idiom of Lachenmann in which very detailed instrumental noises with subtle nuances established an idiom in their own right, the sound of Mozart appears as a dissonance in the context of the composition. The Clarinet Concerto has become *contextual* noise despite its harmonic and sonorous character, which might otherwise be used as an example of the opposite of what is commonly associated with "noise". In the context of Lachenmann's *musique concrete instrumentale* the Mozart is "matter out of place".

The term *liminal* noise refers to the experience of noise that is less dependent on its context. It describes the direct experience of sensorial stimulation that is at the upper or lower limits of what our sensual organs can adequately process. Any sounds that are too loud or too soft, or too high or too low to be properly perceived, or any visual impressions that are too bright or too dark to be clearly recognised, are examples of *liminal* noise. The term *liminal* is used because the perceived information touches the limits of what the senses can handle. *Liminal* noise refers to a more immediate sensual experience than *contextual* noise, since it addresses the thresholds of what the senses can perceive. It is important to notice, though, that despite this direct experience, *liminal* noise can still be commoditised. By changing its meaning, dependent on the context it is placed in, it can become part of an established system. An example of this is how the perception of volume, or sheer sound-pressure has developed in Rock music. In the 50s, the amplified sound of Rock 'n Roll was essential in order to express rebellion. Loudness was its stylistic element (Hegarty 2007:59). Back then it was perceived as an expression of aggression because of which Rock n' Roll has often been attacked as immoral, anti-social and – because of the sound-pressure – damaging to the ears. Nowadays an average Rock concert produces peaks in sound-pressure that are significantly higher than what was possible with the amplification systems in the 50s. Nevertheless, the loudness of Rock concerts has long lost its offensive character. The volume has become part of a performance tradition. Despite its threatening effect on the hearing system it has become an accepted commodity. The *liminal* noise has become accepted and therefore lost its 'noisy' aspect, even when it causes pain.

However, as a category of noise, it is valuable to distinguish *liminal* noise from the other categories, for a differentiated understanding of the forms that noise can take.

#### 4 A SEMILOGICAL APPROACH TO MUSIC AND ART

In his book Music and Discourse the musicologist Jean-Jacques Nattiez proposes a semiotic approach to music analysis. In the understanding of semiologists,<sup>2</sup> every human action – and therefore also every work of music or art – is considered to be a "symbolic form". According to Nattiez

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<sup>2</sup> The semiotic approach described here is taken from: Nattiez:1990. Other writers on semiology might use a different terminology with other meanings associated with it.

The symbolic is a constructive and dynamic phenomenon, characterized first and foremost by the process of referring; in this regard, it is *distanced* from reality, even as it is an element of the real. [...] The symbolic function is generally spoken of as a “capacity to represent that which is absent” (Nattiez 1990:34-5).

Understanding a work of music or art as a “symbolic form” means that any human expression entails a web of references that are open for interpretation. In the interpretation of a work of art a “metacontext” is assumed, that reaches beyond the factual consistence of an expression. The referential character of music is certainly different than in linguistics, but

...one cannot develop a semiology for a special domain such as music, except by agreeing to inventory *all possible forms of referring* without limiting oneself to the single example of referential modalities in verbal language (Nattiez 1990:116).

In musical and artistic contexts, two basic types of references have to be distinguished – *extrinsic* and *intrinsic*. To different degrees, they are both present in every work. *Intrinsic* references are inherent in the formal manifestation of a work. For example, motivic cells that occur at different times and in different forms and contexts in a musical composition create a web of references. In contrast to this, *extrinsic* references point beyond the materiality of a work. All sorts of programmatic music deliberately use extrinsic references. They can be mechanical imitations of nature, psychological effects or physiological gestures. The acquaintance with the *extrinsic* references is often not crucial for the understanding of a work. However, being familiar with and understanding them opens an additional channel of interpretation.

## 5 EXTRINSIC NOISE

The *extrinsic* quality of artistic material can form a third category of noise, which is referred to as *extrinsic* noise. *Extrinsic* noise is at hand if neither of the aesthetic criteria of *liminal* or *contextual* noise are fulfilled, but a sense of irritation is evoked by creating an association with an impure extrinsic experience.

A good example of *extrinsic* noise is Nicolas Collins composition Broken Light for skipping CD and string quartet from 1991-92. Here Collins combines a string quartet with a manipulated CD player, which plays string music by the Italian Baroque composers Corelli, Torelli and Locatelli. As a result of the manipulation of the CD player, the playback of the CD gets stuck in loops (Collins 2009). Such loops are a common error that is likely to happen with scratched or dirty CDs. For the regular consumer of recorded music this is as familiar as a phenomenon as the regular thumps resulting from scratched records on turntables. Hence it evokes the feeling that a malfunction is at hand and that a piece of equipment does not behave in the way that it is meant to. A lack of control seems to be imminent and as such it carries aspects of noise. However, in the case of Collins, the sonic results of the loops do not carry noisy sound characteristics in any traditional sense. Rather they create a lush harmonic texture that is completely congruent with the harmonic idiom of the rest of the piece. The noisy quality that remains is neither *liminal* nor *contextual*. It is based on the association with malfunctioning media and is therefore *extrinsic*.

## 6 SOUND AND LIGHT AS “SYMBOLIC FORMS” – SEARCHING FOR “DIRTY LIGHT”

The semiotic approach shows that the expressive content of a work functions on levels that are beyond its factual materiality. In the case of light, this means that its potential meaning does not have to be constrained by its apparent pureness. Since dirtiness represents a stark contrast to light’s medium-specific characteristics, this chapter will investigate how far its expressive range can be stretched. The question will be pursued whether something like ‘dirty light’ – metaphorically speaking – is conceivable.

The cultural connotations with purity and dirtiness are manifold. The following list shows terms that are commonly associated with pureness and dirtiness and that also include light and darkness (Groot 1998:224-5):

Pureness =	Order =	Light =	Control =	Spirit =	Virtue =	Joy =
Dirtiness =	Chaos =	Darkness =	Loss of Control =	Matter =	Evil =	Sadness

Since defilement of light in the literal sense is not possible, the other pairs of terms may offer a more suitable lead to the use of light in combination with sound. Especially ‘order’ as opposed to ‘chaos’, and ‘control’ as opposed to ‘loss of control’ are aspects that are closely related to noisy phenomena in music. While it is not possible to imagine that light is rendered dirty, it is certainly conceivable to use it in such a way that the impression of chaos or loss of control is evoked. How this could be obtained brings us back to three sorts of noise that have been distinguished above: *contextual*, *liminal* and *extrinsic* noise. When these terms are combined, the following chart can be composed which displays how these are related with each other, and how a single light or sound element can function in an artistic work:

Light and sound as ‘symbolic forms’:

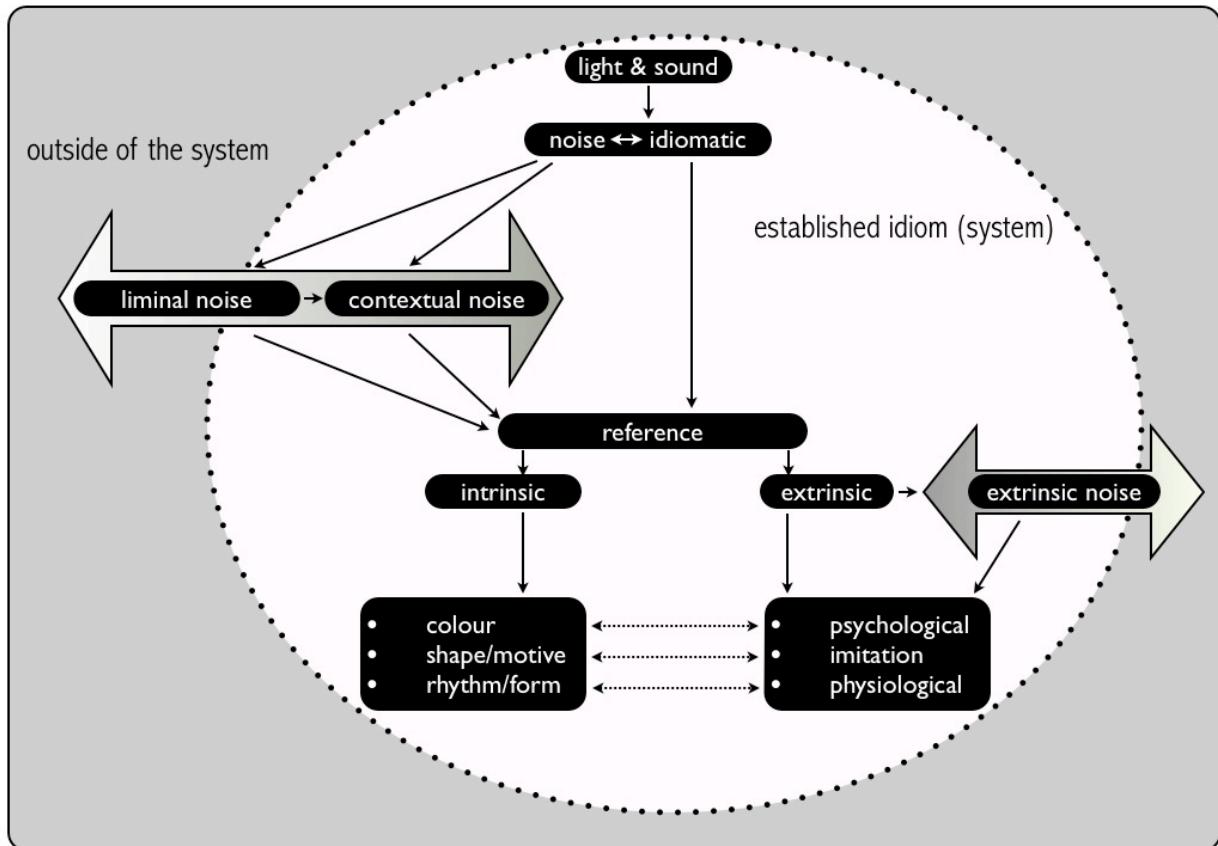


Fig.1 Light and sound as symbolic forms, graphic layout of the used terms.

Here are the different connections in the chart:

Within a particular work, the use of light and sound either fits or contradicts an established idiom. If it lies within the idiom, it also has referential qualities. If it is not part of the idiom and its particular order, it is noise. In that case it can either be *liminal* noise or *contextual* noise. In the former case it lies beyond the range that a sense can comfortably process as it addresses the senses at the thresholds of their capabilities. In the latter case, it does not pose a challenge to the capacity of the senses, but it appears to be aesthetically incompatible with the established idiom. *Contextual* noise is always in a dynamic process with the established idiom since it challenges its boundaries and often eventually becomes part of it (Hegarty 2007:ix). This is also the reason why the circle has been drawn with a dotted instead of a full line: the border between what is inside and outside a system is only rarely a definitive one. If a noisy element becomes idiomatic despite its contextual noisiness it also gains referential qualities. Hence, it is reintegrated into the system. However, if it remains too much in contradiction with the established system, it does not become integrated.

Since *liminal* noise has a direct irritating effect on the senses, it forms a more autonomous experience. Its noisiness does not depend on the context. But while being *liminal*, it can at the same time also be *contextual* noise, if it is in an aesthetic contradiction to the idiom at hand. As shown with the example of volume in the presentation of Rock music, it can however also become integrated as part of an idiom and thereby as well become referential. Both *contextual* and *liminal* noise are always at danger to completely fall out of the system, if their respective noisiness is too much in contradiction to the idiom at hand.

Being referential, sound and light can either form an *intrinsic* or an *extrinsic* reference. The former refers to all relationships that are based on the material of a work and the structures that are generated by manifold medium-specific cross-references. *Intrinsic* structural relationships can for example be created by the use of motivic, colouristic, rhythmic or formal elements. *Extrinsic* are those references that point beyond the structure-immanent relationships in a work. They can either be imitative (naturalistic), psychological or physiological (gestural), to name a few. The extrinsic aspect brings yet another sort of noise into play, namely *extrinsic* noise, which does not depend on either sensual noisiness (*liminal*) or material-based noisiness (*contextual*), but which entails a noise aspect through association. Remember the example of Nicolas Collins' work Broken Light. Also *extrinsic* noise can fall out of the system if it cannot be reintegrated into the idiom.

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By investigating sound and light as ‘symbolic forms’ it has been possible to establish a differentiated vocabulary of various sorts of noise/dirt that function on separate perceptual levels. It reveals the numerous ways in which they can function in artistic contexts. This has opened the door to conceiving ways in which also light can appear as noisy or dirty despite of its medium-specific purity. A factual dirtiness is therefore no prerequisite for the creation of experiences in artistic contexts that are analogous to dirt. “Dirty light” therefore *IS* possible.

## 7 SUMMARY

Approaching lighting with the differentiated vocabulary that we have established does not automatically lead to completely novel light designs. However, it does provide a new perspective on visual and aural phenomena and helps to comprehend and establish analogies between the two that lie beyond the traditional ones, such that are for example based on rhythmic, coloristic or spatial correspondences. It can therefore serve as a valuable tool to an additional analytical and aesthetic understanding of the manifold manifestations that are possible between these two media.

## 8 REFERENCES

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