BETWEEN PERCEPTION AND IMAGINATION

Sound, Light, Space and Movement as the material of Sound Art

Thesis

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Abstract

The examined topics are the immaterial working materials of light and sound in sound art, based on installations by Christina Kubisch. The text begins with the sound installation as a combination of music and fine arts, it moves on from acoustic and visual materials of sound and light to the auditory and visual senses. The last, abstracting step is the examination of perception and idea and lastly the return to sound installation and its effect on the audience.
The chapters of the following text are numbered backwards. They begin at 2. the introduction and end at -1. the conclusion. This procedure corresponds with the more and more immaterial working materials of sound and light within sound art. Therefore the numbering of my text is also a play with the sequential heightening of the abstraction in its context. The text reaches its middle in chapter 0. “Illusion and Reality” as all and nothing.

The thesis was originally written in German. It was translated by Mary Taylor into English.
>On peut regarder voir, on ne peut pas entendre entendere<
> You can see the viewing, but you cannot hear the listening<
Marcel Duchamp
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2. Introduction

2.2 Noise and Sound

Physically noises describe echoes with periodically non repetitive vibration curves; during the course of the noise differing sounds change rapidly and irregularly such as with bangs, roaring, rattling, crackling, or pattering of water.

A sound, however, is an echo whose vibration curve periodically repeats itself. Its characteristics which are perceived as volume (amplitude) pitch (frequency) and tone colour don’t change during the course of the sound. Amongst the physically defined sound are for example buzzing, humming, whistling, and the sounds of musical instruments.¹

Originally the word “Klangkunst” was merely a translation from the English word sound art, which in turn was a variant of the visual arts. Sound art meant that artists began to work with sound. Meanwhile sound art has become a kind of art form in its own right. It is a term referring to the intermediate realm between the traditional genres. Since the common canon of arts has disintegrated with the development of mixed and multi media so has its intermediate positioning as the defining characteristic.²

2.1 Structure of this Thesis

The transition to the medium of sound as working material within my own artistic efforts has awoken my fascination with the combination of the acoustical and visual. What is the difference between sound sculpture and sound installation? How do the immaterial working materials of a sound installation such as sound, light and movement respond to space and time? This results in the relationship between the art work and the audience. What is the communication within a sound installation and what is the effect? What does it trigger? These were my initial questions, which will be examined in the first part of this text. They will lead to the second part that looks into the topic of perception as well as the difference between listening and viewing, which at the same time refers to the relation between Imagination and Perception.

During a visit to the “Gasometer” in Oberhausen for a concert in which I participated as a member of the Transistor-Radio Orchestra “Dairo” of the Dutch Art Institute I had the chance to see the installation by Christina Kubisch that was exhibited there. When I later examined her body of work more intensely I discovered many answers to my questions in her sound-light installations.

The connection of acoustic and sculptural materials characterizes all of Christina Kubisch’s works, yet she does not distinguish their significance: “All I want for the sculptural and the musical is to integrate to such an extent that they give the impression of absolutely belonging together.”

After her art studies in Stuttgart (1969-68) the widely recognized and awarded artist finished her Studies of Music, majoring in Flute and Composition in Hamburg and Graz (Austria) (1968-1972) and went on to study Electrical Engineering in Milan (1974-1976). Since 1994 Christina Kubisch has been Professor for sculpture and audio-visual art at HBK Saar in Saarbrücken. Her work “Licht Himmel” (Light Sky) was completed in the Gasometer in Oberhausen in 2005 and is one of the few sound installations that can be seen as part of a permanent exhibition.

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1. Sound, Light, and Movement as Material of Composition

1.5 Introduction

“Every expression of our life is accompanied by noise. Thus this noise is familiar to our ear and it has the ability to recall life itself. While the ever musical sound, existing outside of our life, an entity in itself, as a random and not inevitable part has become for our ear what the well known sight is to our eye, the noise however, based on the assumption of life’s confusion and irregularities, never fully reveals itself, but constantly confuses us and appears infrequently, holding countless surprises. We are therefore certain that by selecting, coordinating, and mastering all the noises, we will enrich people with new and unsuspected pleasure.” With his essay the painter and composer Luigi Russolo lent the term to the art form and as the first futurist established noise as a tonal element.

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1.4 Sound installation and Sound sculpture

The term Klangkunst, as previously mentioned by Helga de la Motte-Haber, has been first translated within the visual art as the term sound art. The original development, however, derived both from music and the fine arts.\(^6\)

Sound installation is young, but it has a history. Like the slow introduction, Beethoven’s symphonic prelude, hinting at the subjects of the musical events to come, yet cunningly bypassing the keynote, those motifs that only in the 1970’s established their own position of the sound installation, already started to emerge in music and in fine arts at the turn of the century. Sound is their central medium and material and relates them immediately to music. Their presentation, however, derives mainly from movements within the fine arts.\(^7\)

In this way music whose artistic medium was originally the sounding and fading tone has connected with the fine arts whose traditional materials used to be static. A cross bordering art form developed, based on the connection of traditional counterparts, which are the transient of the acoustic and the durability of the optical static. This artistic relationship manifests itself in sound sculptures and sound installations, which in turn can be summarised under the main term of sound art.\(^8\)

Due to the cross references between the areas of fine arts and music in many discourses since the 1920’s, but especially since the 1950’s, the need for new terminologies has arisen, trying to characterize those works that use sound as a sculptural material. Within the rapid development of the phenomenon of sound art the sound sculptures have grown into a genre which experiences various artistic appearances. It is a popular tendency to summarize under the term sound sculpture all the differing artistic concepts in which (…) the auditory level of an artwork as a special aesthetic experience steps into the foreground. On the other side the term is also used for works that emphasise the visual experience that through acoustic design experience an immaterial extension in its reception.\(^9\)

Contrary to sound sculpture the sound installation adheres to a conceptual approach in which the space itself becomes a medium of design and perception by means of sculptural design. With a sound installation the artist relates to the space, which in itself advances to be a medium of perception. Sound creates a space within a space, designing it at the same time; the space becomes a sound space. This way the space itself is being exhibited, presented and reflectively joined with the conceptualization.\(^10\)

\(^{6}\) Helge de la Motte-Haber, Konzeptionen von Klangkunst, 2002. [http://www.floraberlin.de/soundbag/sbimages/motte.htm](http://www.floraberlin.de/soundbag/sbimages/motte.htm)


\(^{10}\) Claudia Tittel, KlangZeitLichtRaum, Berlin 2004, p 229.
The sound artist Christina Kubisch whose works, as previously mentioned, will be referred to as examples for sound art, confirms for her own body of work in an interview with Sabine Breitsameter (September 2004) the development of sound sculpture to space capturing sound installation: “I used to go for the element of surprise: Like suddenly the stone would talk or the tree, sounds would emerge from within the walls. It was object driven and maybe, still within the tradition of performance art (Fluxus), a kind of jumping out of sounds, while today I am much more interested in the situation as a whole.”

1.4.1 The Ephemeral

Although the space is a static guideline for the artist the movement of the audience within this space as well as the selected materials that have a creative effect such as sound and light are instead immaterial and ephemeral. The installation itself, much like a musical performance, has event character; sound art may be solidly installed, however in general sound installations tend to remain in one place for a limited time only. Sound art is usually ephemeral.\(^\text{12}\)

The word ephemeral stems from the Greek word *ephemeros* “for one day” and means fleeting, passing.\(^\text{13}\) The materially aesthetic changes in fine art through which immaterial and ephemeral materials made their arrivals, were an important prerequisite for the establishment of sound as sculptural material. The choice of materials influences the artistic message. This becomes especially evident where artists emphasize the pure effect of the material in their work, developing the form directly and without artistic treatment from there.\(^\text{14}\)

Due to the revaluation of material against form at the beginning of the 20\(^{\text{th}}\) Century the history of a shift of the significance of form towards favouritism of the artistic means has begun.\(^\text{15}\) This new reference to material leads to a more ephemeral expansion of the art work through sound, movement, and occasionally light. The voluminous and solid boundary of the sculpture dissolves through the energetic materials, thus using the entire exhibition space as artistic means."\(^\text{16}\)

"This reveals the concept of material in sound sculptures and sound installations of many artists and is also inherent in Christina Kubisch’s work: by using technical media in the presentation of artistic ideas immaterial energetic materials are being deployed throughout the entire space."\(^\text{17}\)

Based on Christina Kubisch’s work as a musician her first works (1972-1974), which were strongly influenced by her visits to New York, refer more to music performance and form the methodical basis and the artistic-theoretical roots of her sound artistic work. At that point she examined the contemporary performance and dance scene of the 1960’s and 70’s in the USA, especially in metropolis such as New York and Los Angeles.\(^\text{18}\)

During 1970-80 she performed Video-Concert-Installations together with the artist Fabrizio Plessi, which, according to her own statements, are closely related

\(^\text{12}\) Helga de la Motte- Haber, Konzeptionen der Klangkunst, Berlin 2002. [http://www.floraberlin.de/soundbag/sbimages/motte.htm](http://www.floraberlin.de/soundbag/sbimages/motte.htm)

\(^\text{13}\) Uni Leibzig, Wortschatz. [http://wortschatz.uni-leipzig.de/](http://wortschatz.uni-leipzig.de/)


\(^\text{16}\) Claudia Tittel, KlangZeitLichtRaum, Berlin 2004, p 147.

\(^\text{17}\) Henckmann/Lotter (1992) p 158.

to the Fluxus activities. In those many performances of the 1970’s spatial aspects or the movements of the audience in the room are just as important as the unusual sounds. During this time Kubisch performs her works herself. They contain the mistrust against the arbitrarily drawn borders between the arts that derive from the classical aesthetic. The involvement of visual structures, combined with the musical content and the interrelating media in this performance art already relates this performance cycle to Kubisch’s sound artistic work.

As early as 1978 Christina Kubisch justifies in the magazine “Flash” the artist’s withdrawal from the centre of the action by stating that this place actually belongs to the audience. In this article she nonchalantly refers to a completely new aesthetic idea, saying that artistic expressions should allow the audience their “own time”, whereby they should be able to act themselves outside of a solidified course of events. She developed this possibility by designing new spaces, which require the recipient who moves within them to find a relating system with which not only the unfamiliarity of the newly designed space but also his own position can be understood. The recipient here and now and still in a fictive world also has to determine his own position. This was how through sound installations the diverse topic of “space” became a main focus for Christina Kubisch.

The following examines primarily Kubisch’s work from 1980 on, when she withdrew from acting in her own works and with “Il respira del mare” (1981) created a sound relief that marked the transition from sound sculpture to sound installation.

“Il respira del mare” was developed in 1981 for the UNIVERSA ARS festival in Sicily. Two round shaped mazes, a few metres high were installed on two opposite walls in an old, abandoned school house in Capo d’Orlando, reminiscent of the 6th Century floor mosaics of San Vitale in Ravenna or those in gothic cathedrals such as Chartres or Bayeux. Starting at the door red cables directed the visitor into the room, forming into a maze on the right wall. Approximately one metre off the ground they meandered into a maze like circle. The cables almost touched in the centre before disentangling and running back down the wall, leading the visitor’s eye out of the room again. A blue cable on the opposite wall formed a maze circle, directing the visitor in from the other side of the room. This second maze did not show any free space in the middle. Here the line meandered seven times back and forth, before gliding down to the floor and leading to the door along the wall.

At the entrance the visitor was handed two 10 by 10 centimetre black or white listening cubes. These opened the auditory perception level to the visitor:

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20 Helga de la Motte-Haber, Installation in der Stadtgalerie, Saarbrücken 1986.
stepping to the blue maze on the left there was the perpetual sound of the ocean, at the red one you could hear constant breathing noises. This allowed the visitor not only to visually scan the lines but also sense it acoustically. He could hold the cube to his ear, listening to sounds, taking in the rolling of the waves or approach the other maze, getting inspired by the sound of quiet breathing. One could close the eyes and be in another space. Once you moved the cubes freely in the room, the sounds would mingle with the noises in the room. As if from a long way away, hushed, the sound of the ocean and quiet, regular breaths could be heard, revealing the allegory of title: The Breathing of the Ocean.\(^\text{23}\)


Nr. 2: Christina Kubisch, Iter magneticum, 1988, Kongresshalle Berlin.
Nr. 3: Christina Kubisch, Labyrinth, 1987, Ars Electronica, Linz, Donauufer.

Nr. 4: Christina Kubisch, Iter magneticum, 1988, Kongresshalle, Berlin.
1.3 Space and Sound

"I want to create spaces in which an independent world develops, where what you hear and see gains its own dimension." Christina Kubisch, 1999

Spaces and landscapes developed that wired with cables became sound lines, paths, tents, surfaces, and sculptures. Through the electro magnetic cube shaped receivers the visitors were able to listen to the sounds in the cable and trace them through the room.

Another example is the installation “On Air” from 1984 when Christina Kubisch used an entire abandoned medieval village in Tuscany as a sound space for her installation. The acoustic and visual guideline was a web of coloured electronic power cables that created a visible maze and at the same time unfolded invisible sound zones, if one was equipped with the electro magnetic sound cubes. The different sounds were fed through the cables by 24 programmes, guiding the visitor through Gargonza and marking important social places of the village both acoustically and visually.

“On Air” was installed for two weeks in Gargonza, thus, as with many of her works, displaying a temporary character and a local reference to the place where they were exhibited. In her installation Kubisch often refers to the historical content or profound elements of the places by using sounds that could be heard at that place in the past or that emphasize an atmosphere specific for the space.

Installations particularly refer to architectural situations in which the various objects of the installation are embedded – equally in the public arena or in other places. The space, the place where the sound installation is set up is considered a given; it is the basis, serving as design material. In it the meaning of the space can be either voided or emphasized, breech its boundaries or accent them.

It is, however, a reciprocal relationship. Not only is the room designed through sound, but the space also has a creative influence on the sound. In the field of acoustics the room forms its own category and is determined by the respective architectural conditions. Size, height, material and architectural structure, the given architectural characteristics of a room reflect the sound in specific ways. It influences the individual tones and the tone colour. Overtones are filtered out,

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whereby the selected sound blend in with the individual noises of the room, thereby creating a special space specific listening experience.\textsuperscript{31}

Nr. 5: Christina Kubisch, On air, 1984, Gargonza

Nr. 6: Christina Kubisch, magnetic garden, 1983, Klarlsplatz Wien
1.3.1 Space, Movement and Time

Christina Kubisch uses the interrelation between space and sound by creating an illusion of a space specific listening experience for the visitor in and with her installations. She composes her own pieces of music for her induction installations. Upon entering the room the visitor receives via their induction headsets the different sounds, assigned to individual cables and they can choose their own individual auditory and visual position. This way, with the help of the induction headsets, Kubisch creates the illusion of a specific acoustical space dynamic.

Nr. 7: Christina Kubisch, Skylines, 1987, sound-sculpture, documenta 8, Neue Galerie, Kassel.

http://mugi.hfmt-hamburg.de/Kubisch/
Kubisch’s first induction work in combination with black light was “Skylines” in 1986/87. It was for the first time exhibited in the version shown in 1987 at the documenta 8 in the halls of Binding Brewery in Kassel. The viewer initially entered a dark room in which intensely glowing lines of light were drawn from the floor to the ceiling, outlining an upwards opening cone shape. Kubisch had led cables in a cone shape from the ceiling into the room, painted with a special pigment, darkened the room and installed black light lamps. The black light filled the room with a diffuse twilight and made the pigments glow, whereby the solid cable line would dissolve and turn into lines of light, visually forming a glowing, immaterial sculpture. These were the only recognizable objects in the room, even the actual light source remained hidden, and thus creating a volume that glowed from within itself.

Through the glowing pigments the cables coming down from the ceiling and forming this cone had lost their materiality, seemingly creating disembodied lines, drowning the room in diffuse light that triggered a perception process which in itself examined the stages of perception. The cables glowed from within themselves and shaped a light sculpture that again dissolved the spatial coordinates, creating on one hand an immaterial volume and on the other hand dissolving the boundaries of visibility of the room. The same was achieved through the acoustic situation: various sounds and noises formed new sound spaces whereby the real situation disintegrated and abstract, immaterial sound sculptures developed, constantly changing without forming distinct outlines.

With the help of headsets and based on electro magnetic induction the visitors were able to listen to the sound, sent by the line of light, which created a virtual, invisible and yet perceivable sound body. The visitor could walk around individual sound-light lines, and while going from one line to the next receiving the different noises. Electronically generated scratching, squeaking, rubbing, or distorted train noises blended in with floating sinus tones, simple triad, deep, jazzy bass tones and defamiliarized sounds of nature such as frog croaking or water splashing. Specific sounds and sound structures were assigned to each line which built the basic material and which were frequently shuffled through a random system in the computer. This way the acoustic material always sounded in new variants, thus constantly changing the virtual sound body. After entering this atmospheric sound space the visitor was able with every step or change of direction to change his own perspective of the sound sculpture and thereby alternating its form, because by each time approaching the individual sound lines or retreating from them the sound would be mixed again in the headset.

“The listener is like a sound mixer who arranges everything through his own body motion.”

Christina Kubisch during an interview with Sabine Breitsameter

In Kubisch’s induction installation the visitors’ movement in the room becomes an artistic element that creates the composition. Golo Föllmer writes: “In Christina Kubisch’s induction installations the visitor is asked to find and combine the “hidden” sounds – depending on their individual position or direction of motion. The recipient gets to be the discoverer and composer of his own sequence of tones. The aspect of playful discovery dominates her headset pieces: within the visitors’ physical playing around each other the audible structure becomes the catalyst of communicative action between strangers which is otherwise unusual. Coincidental counterparts evolve which break the classic distance of everyday life.”37 In his article “Medienkunst im Überblick” Föllmer describes this expansive organisation of sounds that make the visitor his own sound composer as a ‘temporalisation’ of the real space.38

“Composers usually place the elements of a composition in time. An idea that I am interested in is to arrange it within a space and leave it up to the visitor to place it in their own time.”39

Traditional compositions follow a timeline. A traditionally composed piece of music steers from a starting point along a determined or even ad hoc dramaturgy towards an ending point, often striving for a disintegration or relaxation. Once this line is removed from the event of the performed piece it leaves a design of space beyond time. “Beyond time does not necessarily mean that duration becomes redundant, it means only that the logical order from the beginning to the end is not the focus anymore.”40

While composers determine the arrangement of sounds temporally, the artistic object of sound installation is placed next to the temporal, especially in the spatial positioning of sounds.41 As they fill the entire room and are understood as the musical score of the space the visitor’s perception of a sound installation differs from one without sound. The time-space-continuum is especially determined by the recipient himself. Through the acoustic contemplation the visual concentration on material objects steps into the background. With a sound installation sound becomes much more discernible as the apparition of three-dimensionality.42

The sound mix, experienced by the visitor equals the physical conditions of the space. This means the perceptions of the directions and distances of sound
radiance in the room always differ, enabling new sound spaces to develop within the room and through movement of the audience. The aspect of time as an experience parameter for space, however, is equally important as the visual or aural sense as well as the equilibrium.\textsuperscript{43}

Maybe it is just this described interrelation between space and sound that motivated Christina Kubisch in her most recent work to exchange the induction headsets for open loudspeakers. Although the headsets, due to the magnetic induction, open a new sound space they are at the same time a listening prevention, because they function similar to ear protectors, excluding the actual space dynamic.\textsuperscript{44}

The ideal audience position, as used commonly in traditional concert situations cease to apply with both the induction installation and Kubisch’s later works. The exhibit does not have a centre, but it dissolves into an illusion of solid structures. It becomes mobile in a figurative sense.

It is the motion of the audience in the room that enables the visitor to participate in the design process of the exhibit. The audience is actively involved in Christina Kubisch’s medial reality and the installation is perceived as an experience.

\textsuperscript{43} Claudia Tittel, KlangZeitLichtRaum, Berlin 2004, p 232.
\textsuperscript{44} Helga de la Motte-Haber, 1990, p 44.
1.2 Space and Light

“Black light is predestined for confronting different stages of reality or perception with each other, without it taking centre stage. It is about glowing light not about lighting.” — Christina Kubisch

After 1986 Christina Kubisch started to use additional light and later predominantly black light as material. Black light is extremely short waved light whose frequency is close to the x-ray light and on the boundary of perception for the human eye. It triggers certain elements and colours to become fluorescent, whereby, depending on the material’s nature differing colour frequencies radiate. It is deployed in areas of science to detect traces that are invisible in normal daylight: e.g. for the restoration of paintings, in banks to detect counterfeit money and in space photography.46
1.2.2 Memory of Light – Remembrances

The use of black light which reveals the hidden traces of history fits in its revealing and yet also enshrouding character many of Kubisch’s installations. In her work she often refers to historical backgrounds of the selected places, and in this context showing the space in a different light.

Christina Kubisch sought out historically altered places in order to follow the traces of the changing time. Unusual places and their temporal backgrounds caught her attention. Most of the times these space were pitch dark, inside them wires, coated with phosphorescing pigments glowed mysteriously and from small loudspeakers these places would murmur about their history.47

One example is her first work from 1993 from the series “consecution temporum” (1993-2002) –Sequence of time” in the former studio of Joseph Beuys in the old Kurhaus, today’s city archive of Kleve. Christina Kubisch exchanged the 12 old wall lamps of the archive with light fittings, containing mercury lamps and directly behind each glass shade she mounted with strips of felt a loudspeaker from which hardly detectable sound emanated into the room, building tight cross-links throughout the space.48

At the time Kubisch followed an invitation to install a piece of art in Joseph Beuys’ former studio. But instead of finding traces of his work she found herself standing in a restored library with bookshelves, nothing remained of the room’s former function. “I wasn’t allowed to change anything, nothing was to be moved, rearranged or added. It was quite a challenge.”49 Christina Kubisch Through the 12 UV-High-pressure-lamps and the acoustic net of the ultrasound generators the room submerged into a different atmosphere. Restoration traces became visible.50

The light served as a creative means in order to make the space-time-continuum visible and change it at the same time. With help of the black light Kubisch uncovered internal spatial structures that are not visible to the eye while she referred others into the background. What is visible disappears and the invisible becomes apparent.51

47 Helga de la Motte-Haber "PRISON MEMORIES" Installation in "Moore College of Art and Design", Philadelphia, USA 1996.
49 Christina Kubisch interviewed by Christoph Metzger, Ausstellungskat. Kubisch, 2000, p 64.
50 Claudia Tittel, Klang/Zeit/LichtRaum, Berlin 2004, p 245.
Nr. 8: Christina Kubisch, consecutio temporum I, 1993, Altes Kulturhaus, Kleve (Ehemaliges Atelier Beuys)
1.2.1 Disintegration of Space

“The less you can assess a space the more aware you become for what is still there” Christina Kubisch

The installation “Klang Fluss Licht Quelle – Vierzig Säulen und ein Raum” (1999) (Sound Flow Light Source – Forty Columns and one Space) served as the opening to a series of works by different sound artists who were supposed to change the aura of a building in the stages of its development. The Berlin sound art forum Park Kolonnnenaden at Potsdamer Platz was opened with Christina Kubisch’s sound-light-installation in April 1999 and stayed there for 14 days on public view.


The visitor initially enters a dark room. On both sides of the forty cuboid-shaped concrete columns, fitted with differently arranged fluorescently glowing lines, forming a 200 metre long row running into the room, evoking at first sight the impression of standing in a basilica. At the ceiling each column is clad with a simple face board, resembling an inornate cushion capital which establishes the reference to a sacral room. The lines around the columns follow a sophisticated arrangement system, which, as a whole initially appears to be consistent, however between the individual pillar strongly varies.\(^{54}\)

Just as the columns grow smaller through the perspective in the room the spaces between the lines are also reduced in the line of vision. They run parallel to ceiling and floor or slanted upwards or downwards. Through the light strips that are differently spiralled around the columns the room appears to be oscillating, whereby on one side the heavy mass of pillars dissolves and on the other side slowly moving sculptural bodies develop in the room, reflecting from the ceiling and thereby elongating the pillars in an upward direction. The ceiling itself seems to rest upon the room like a black veil and thereby also losing its heaviness. At some places in the room small puddles are visible in which details of the glowing line are fragmentarily reflected, which evokes the resemblance of a lake at these spots on the floor.\(^{55}\)

\(^{54}\) Claudia Tittel, Klang/Zeit/LichtRaum, Berlin 2004, p 253.

\(^{55}\) Claudia Tittel, Klang/Zeit/LichtRaum, Berlin 2004, p 253f.
The glowing lines are electro cables. These are not only a visual element but also sound carriers. Each "cable column" is a transmitter for a specific sound sequence. The one thing they all have in common is that they derive from the Element of water. Sputtering, pouring, rippling, dripping and flowing sounds create an underground water world that becomes audible with the help of electromagnetic and wireless headsets that enable the visitor to move in the room freely.\textsuperscript{56}

Apart from the sound, however, the cables are very much perceived as visual elements, appearing as green shining strips. Kubisch has pigmented them and illuminated via black light.\textsuperscript{57}

The optical oscillation, created by the minimal variances in the arrangement of the glowing strips is reminiscent of graphic and also sculptural works by Frank Stella. They flicker optically so much that even the columns seem to be in motion.\textsuperscript{58}

The physical bodies – such as the concrete columns – become invisible and the room itself appears to have dissolved, non existent, which leaves the "light sculptures, formed by the glowing strips as the only detectable “objects” in the room. They are the only reference point for the human eye, the only thing it turns to in order to fixate them. As the light and all its shades, normally required for visual spatial perception is absent, the eye keeps trying, based on these virtual light sources, to detect an object in the room by which it can orientate itself. Room size and height, breadth and depth cannot be estimated, nor can the opening to the outside world or the structural and supporting elements be distinguished and the architectural material cannot be determined.\textsuperscript{59}

The UV-light used here for the visual creation of the space is deployed to build the sculptural bodies in the room. It is therefore a carrier of space creating and space dividing relations, promoting the overcoming of heaviness and at the same time leading to the disintegration of the architectural space. Kubisch has rearranged and re-presented the design aesthetical spatial characteristics.\textsuperscript{60}

The optical concealment and disintegration of the familiar spatial situation enhances the recipient’s visual awareness. Imagination and memory are being activated to shut off familiar viewing patterns in order to enable the visitor to open up to new perceptions.\textsuperscript{61}

\textsuperscript{56} Volker Straebel, Räume im Fluss, Klangkunst von Christina Kubisch am Potsdamer Platz, Tagesspiegel 26.04.1999.
\textsuperscript{57} Claudia Tittel, Klang/Zeit/LichtRaum, Berlin 2004, p 253.
\textsuperscript{59} Claudia Tittel, Klang/Zeit/LichtRaum, Berlin 2004, p 254.
\textsuperscript{60} Claudia Tittel, Klang/Zeit/LichtRaum, Berlin 2004, p 255.
\textsuperscript{61} Claudia Tittel, Klang/Zeit/LichtRaum, Berlin 2004, p 253f.
The black light serves as demonstration material, showing the structure of the room, illuminating existing bodies and subtly changes the room and its objects and it creates new spaces within. “Christina Kubisch uses the night side of the light, the black light and fluorescent pigments.”\textsuperscript{62} Thereby she confronts the immaterial sound with an adequate visual element on one hand and on the other hand the room is transferred into a new materiality not only through the sound but also through its visual treatment.\textsuperscript{63}

Sound and light are used as sculptural materials that due to their immaterial, abstract, and yet their vivid, spatial as well as energetic characteristics become a special artistic material. At the same time they invalidate the art historical categories sculpture and installation as they are ephemerally extended.\textsuperscript{64} Because of their immaterialness both elements are ideal carriers for make-believe and illusions.\textsuperscript{65}

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{63} Helga de la Motte-Haber, 1999, p 36 ff.
\item \textsuperscript{64} Helga de la Motte-Haber, 1999, p 36 ff.
\item \textsuperscript{65} Claudia Tittel, \textit{Klang/Zeit/LichtRaum}, Berlin 2004, p 203.
\end{itemize}
\end{footnotesize}
1.1 Summary

“It is also about exposing certain structures in the room as well as showing architectural contexts and taking the viewer away from the normal room perception. When you no longer see the room in its normal context you see different things, you cannot orient yourself in this room anymore which means that you have to put aside your viewing patterns and that is where a new form of perception begins.” Christina Kubisch

With her sound-light installations Christina Kubisch creates a new way of spatial perception which the recipient experiences in its event character. To achieve this she uses sound as well as light, acoustics and visuals as design material. As a consequence the viewer is not confronted with a cohesive piece of art, but he is able to move within it and thereby sensing his own time sequence and his individual frame of perception. This time sequence is unique irreproducible. Recipient and art work are not confronting each other, but they interact.

As much as the piece of art is determined by the spectator, he is, at the same exposed to it. Although the viewer determines the personal time and local sequence of the work, he is at the same time confused by space-time-perception inherent in the exhibit.

Kubisch alienates the space to such an extent that the viewer amidst a room is being isolated from a normal viewing experience. Familiar parameters of spatial experience are confused and confronted with new ones. Although the visual senses have perpetually tried to penetrate the room and its architectural structure and even when this illusionary effect has been rationally understood the eye is constantly deceived, because the effect on the senses does not go away, not even when they have been seen through.

Apart from the viewers correlation between influence and being in subjection Christina Kubisch’s work provide a third aspect that withdraws itself from this illusion. The moments of stillness, which are outside the viewers influence, determine through their independence the message of Kubisch’s work:

Christina Kubisch keeps stressing that her own need of stillness often determines the character of her works. The experience of individual time, the finding of quietness, self identification and informality are words that characterize her acoustic space design.

http://mugi.hfmt-hamburg.de/Kubisch/
68 Golo Föllmer, Klanginstallation im öffentlichen Raum, Golo Föllmer im Interview mit Christina Kubisch, Berlin 1995.
Her works seek the message within the connection of sound level and light component. She ties the phenomena of time into a specifically non coherent aesthetical context. More precisely, it is the stillness that becomes the connecting link which, understood as motionless in time, is experienced both visual and auditory.  

The following aspects can be stated to be applicable for Kubisch’s work as well as for sound installations in general:

2 The linear concept of time in music is given up in favour of a time circumstantial character of sounds. Often sound differences are placed at different places rather than at different points of time. There is no beginning or end.

3 The temporal sequence of a sound installation is determined by the recipient’s motion in the room. The art work develops around and through the recipient.

4 In a sound installation the ideal audience location does not apply. There is no interpreter or performer. Sound generation is taken on by technical reproduction and synthesis systems.

5 Installation and space are integrated, forming a symbiosis. Sound and space reciprocally create each other and are spatially and temporally not reproducible and therefore unique.

6 The creation of sound installations is based on aspects of perception and effects. The focus is therefore on its sensual experience.

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69 Golo Föllmer, Audio Art, Golo Föllmer und Springer Verlag 2003.  
[www.medienkunstnetz.de/themen/medienkunst_im_ueberblick/audio/scroll](http://www.medienkunstnetz.de/themen/medienkunst_im_ueberblick/audio/scroll)

70 Golo Föllmer, Klanginstallation im öffentlichen Raum, Berlin 1995, p VIII.
0. Illusion and Reality

“I am not interested in making music exclusively for musicians or musically
initiated audiences. I am interested in making music for people.”71 Max Neuhaus

The artist leaves the result of a piece to a certain extent up to the audience, not
completing the art work entirely but leaving space for the visitor’s actions and
interpretations. The visitor’s discovery of internal correlations of a sound
installation and its development in the interplay with the recipient are the main
aspects of this art form.72 The contexts and meanings of the individual system
components of a sound installation are not definitely determined. Only the
listener/viewer is the last connecting link in the arrangement and is to a large
extent free of any assignment of sense. He has to explore the given sound and
spatial system and based upon his very own experience assign the meaning.73

After 1970 the sound installation has come out of its fishbowl. The
artist’s/composer’s role with a sound installation is compared to conventional
music much less important, because the temporal structure of the sounds is
produced by the recipient. With this art form the meaning of communicated
context largely develops from the point of the interaction with the recipient,
through his active acquiring the acoustic and visual elements provided by the
artist.74

This acoustic and visual offer is the connection of structural, infolding-engaging
fine art with acoustic and even more so expansive art. This connection inevitably
creates a very intense and yet for the visitor an easily accessible and liberal
experience of the situation. Sound art uses for its communication mostly
fundamentally human or social aspects of perception rather than complex art-
codes.75 All sound installations have the fact in common that there is only very
little precognition necessary for their reception or rather their effect, which is the
notion that unlike with traditional art forms here there is explicitly no previous
knowledge required.76

The only thing the visitor has to know is that he is free in his listening, viewing
and moving, that the common rules for museums and concert halls basically
don’t apply. Knowledge of a musical or artistic code or historical aspects is not
required, because the communication of the contexts happens in a language
comprehensible to every inhabitant of the western hemisphere: it is based on the
interplay of everyday experiences. The recipient is asked to explore and
experience the system of the sound installation the same way he does it with his
own environment: He is supposed to use it according to his own needs. Ideally

72 Golo Föllmer, Klanginstallation im öffentlichen Raum, Berlin 1995, p IX.
73 Golo Föllmer, Klanginstallation im öffentlichen Raum, Golo Föllmer im Interview mit Robin Minard, Berlin 1995.
every code and meaning will derive from this application. Without the recipient there would be no sound installation of any significance. Its sense and context develops with its application.  

The crafted object of an installation is in the end neither the room or sound, nor the artistic object, but the recipient: The object of the visitor’s perception of an installation is ultimately the self, the functioning of ones own senses within an only just everyday situation. The object of perception is the perception apparatus. 


78 Golo Föllmer, Klanginstallation im öffentlichen Raum, Golo Föllmer im Interview mit Robin Minard , Berlin1995, p IV.
- 0.1 Listening and Viewing

“On peut regarder voir, on ne peut pas entendre entendere”
“You can see the viewing, but you cannot hear the listening”\(^7^9\) Marcel Duchamp

In our Western world sight is the dominant sense, hearing, however, is still the more insistent one. Hearing is the ontogenetically earliest sense. The human foetus reacts from an age as early as 24 weeks to acoustic signals with eye movement and shock reactions. Later shock reactions can, besides from haptic stimuli also only be triggered by acoustic stimuli. The swiftly darting shadow of an aeroplane may surprise us, a warning signal alert us, but they hardly hit us with the fundamental force of shock. The hearing alarms, it activates (from sleep) or deactivates (relaxes).\(^8^1\)

The instinctive shock moment occurs, because at this moment the auditory process is missing a part of its internal activity, which is normally required from the recipient: "The information required for the orientation within the auditory space via a sound signal are not immediately inscribed in the signal itself, but they have to be recognized by evaluating various pieces of information from the acoustic signal. Hearing is an active, interpreting process."\(^8^1\)

Visual perception on the other hand is an image largely based on learnt, analytical processes. Therefore a temporally gradual orientation based on images allows for a sectioning of the visual world into objects, cause and effect.\(^8^2\)

In contrast to this Arjen Mulder talks in an acoustically characterized world about a holistic perception which is based on a simultaneous perception of stimuli. As an example he uses prehistoric cultures whose orientation was entirely acoustic. „In cultures without media, people live in “acoustic space”: prehistoric space in which they are totally oriented to hearing, and not vision as we generally are, simply because they have no writing or other visual media (beyond a few decorations and magical cave paintings). In oral cultures, everything in the environment is perceived immediately and synchronously, for the ear basically hears everything at once. Everything is linked together in the same moment, not step by step as it is in the visual worldview."\(^8^3\) „In visual cultures, people look at individual objects and mentally reconstruct the separate perceptions into a process of cause and effects."\(^8^4\)

\(^7^9\) Marcel Duchamp, box of 1914, Marcel Duchamp, Duchamp du Signe. Ecrits, Hg. Michel Sanouillet, Paris 1976, p 37.
\(^8^0\) Volker Straebel, Hören als Wahrnehmung und Vorstellung, Phänomenologische Überlegungen im Angesicht des reduktiven Minimalismus in der Musik, Programmbuch Moments, Musicaux Aarau 2002.
\(^8^1\) Golo Föllmer, Klanginstallation im öffentlichen Raum, Berlin 1995, p 28.
\(^8^2\) Golo Föllmer, Klanginstallation im öffentlichen Raum, Berlin 1995, p 29.
\(^8^4\) Arjen Mulder, „Understanding Media Theory“, p 78f.
These two forms of perception don’t necessarily have to be different. We experience the difference between acoustic and visual space when we arrive in the city after a long stay in the country or the wilderness. The noise level in the city is crushing, and the number of stimuli coming through from all sides, even inside one’s home, is punishing. The only way of surviving this assault on the sense is to switch over from an aural orientation to a visual one. Little sound penetrates visual space; it is as the ears develop “lids” like the eyes. (…) If one learns to "read" the city like a text, and instead of allowing information to penetrate all at once takes it in bit by bit, as if reading a book word by word, one will, after a bit of practice, succeed in creating a new order, not only in the environment but also in oneself. One is a different person in visual space than one is in acoustic space.\(^{85}\)

The holistic perception of an acoustically characterized world explains why with hearing we open up to the medium, engage in it. The engaging aspect, as opposed to the assessment, determination of the visual distinguishes listening from viewing.\(^{86}\)

With viewing the world of objects begins. Each glance has something of the glance of Medusa: It freezes them, turns them into stone.\(^{87}\) Viewing as spatially-permanent can therefore be objectively and scientifically described. It is the foundation of abstract thinking. Furthermore it constitutes a sense of distance and therefore embodies the separation and enforcement of individuality. The viewer does not have to express himself nor does he have to open himself to a clearly perceptible source of information in order to see; he can stay at a distance. This is why nowadays the visual sense stands for competition and impersonality.\(^{88}\)

Totally different however is hearing, which does not put the world at a distance, but lets it enter.\(^{89}\) hearing is temporally ephemeral and therefore to a large extent subjective. Due to this subjectivity it is close to belief, the metaphysical and tradition. Because of this closeness and necessity of opening and engaging which are vital for communication with the ears, hearing is a sense of social solidarity and trust.\(^{90}\)

Apart from this hearing also bears a sense of independence, which is the inherent negative aspect. Because independent is the one who takes in information uncritically.\(^{91}\)

\(^{85}\)Arjen Mulder, “Understanding Media Theory”, p 79.

\(^{86}\)Golo Föllmer, Klanginstallation im öffentlichen Raum, Berlin 1995, p 55.


\(^{88}\)Golo Föllmer, Klanginstallation im öffentlichen Raum, Berlin 1995, p 32.


\(^{90}\)Golo Föllmer, Klanginstallation im öffentlichen Raum, Berlin 1995, p 32.

\(^{91}\)Golo Föllmer, Klanginstallation im öffentlichen Raum, Berlin 1995, p 55.
- 0.2 Between Idea and Perception

“Hearing the sound is the first step of internalization, of intellectualization – in listening to the sound hearing is already implicated as its adherence, its identification.”

Theodor W. Adorno

Adorno distinguishes between hearing and listening, describing hearing as perception, but defining listening as an idea. The key role here is the factor time, the fleetingness of the present moment.

When listening the consciousness prescinds from the linear time structure of the ephemeral and on one hand constitutes a reflux to the musical form, already heard and gone, while in the future on the other hand it enables the disappointment or the fruition of anticipations. Thereby the consciousness of what is heard already disengages during the perception from the object of perception.  

This becomes clear by comparison: A visual image confronts the viewer as a consistent object. Although the reception necessarily happens within time we would state that we recognize the painting as a whole. This is possible because we share the images present – for the entire time of perception. Listening, however, is different; the reception of a piece of music – as sound – lacks a tangible present. We never deal with the piece of music itself but always with the idea of it.

In Sartre’s terminology perception and idea are to be understood as different ways of consciousness which relate to objects outside one self. We perceive objects that are presently accessible to the sensual experience. The idea, however, relates to objects which detach themselves from this immediate sensual experience. If Matheo sits across from me I am conscious of him in the form of my perception. If he, on the other side, is in Brazil or hiding under the table I can only have a consciousness of him in the mode of an idea.

One distinct example for the aesthetic idea is a 48 hour piece of music which, due to its length, inevitably defies its perception in its entirety. The absent recipient knows about the actual, present performance only as an aesthetical idea. At a given point in time he can assume that the performance is still ongoing and something is happening at the place of the performance that follows a familiar score and/or resembles what he has heard during the performance.

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94 Volker Straebel, Hören als Wahrnehmung und Vorstellung.

earlier. The recipient develops a distinct idea of the coming development rather than an uncertain anticipating perception.

The uncertainty refers to an uncertainty of any perception that could deceive me anytime. Unlike my idea. The idea as a synthetic act is always a certainty, because rather than telling me something about the world it is only a product of my constitutions.

The relation between certainty and uncertainty becomes most evident when familiarization is taken into account. The longer any given moment in which something familiar happens lasts, the more distinctly it can be referred to as familiar. The difference to the previously mentioned event like music performance is that during the perception of the familiar the recipient is physically present.

Walter Benjamin describes familiarization as distraction which is characterized by a tactile application and unaware optical perception that is crucial for the perception of art. The tasks, appointed to the human perception apparatus during changing times in history, cannot be accomplished by only visuals, contemplation that is. They are mastered gradually through familiarization, following the directions of tactile.

Only through the absence of awareness – when the viewer does not immerse himself into the art work but approaches it for his own purpose, like immersing it into himself – are, according to Benjamin, certain adaptations of perception through familiarization possible to happen. Therefore familiarization means that missing awareness (perception) is replaced by idea. Through this mixture of perception and idea the world is being immersed into it by familiarization – the perceived becomes the idea and thereby part of the recipient. The perceived is being assumed as certain, yet the idea as real, as existent.

This characterizes the fundamental difference of idea itself. Sartre states the example of a realistic painting whose illusionary image I no longer understand as being an image, because I take the idea of the depicted object as real. If one, in the reception of a piece of music, goes beyond the actual tone sequence, no longer listening to individual sounds and their immediate contexts as reciprocal conditions if existence, one goes past (even in listening) the act of perceiving towards the act of realizing. Both in viewing and listening the not presently given is still assumed as real. The projective idea therefore determines its object

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96 Volker Straebel, Wahrnehmung, Vorstellung und Erfahrung.
98 Volker Straebel, Wahrnehmung, Vorstellung und Erfahrung.
103 Volker Straebel, Hören als Wahrnehmung und Vorstellung.
as present and existent, implicating a claim of truth that is unknown to the common idea.\textsuperscript{104}

The Idea differs from perception in so far as it is independent from the immediate presence, existence or possibility of the imagined. With idea the consciousness assumes an object as not (necessarily) present or at all existent. The imagined is temporarily assumed as nothingness, only to be later constituted as a conscious accomplishment. Perception, however, presumes an object as necessarily present sensually tangible.\textsuperscript{105}

Hume also distinguishes different qualities in perceptions and ideas: “Those which appear with most force and vigour we call impressions,” the less forcible and lively are commonly denominated Thoughts or Ideas.” “All our ideas or more feeble perceptions are copies of our impressions or more lively ones.”\textsuperscript{106} As a memory or result of the power of imagination the idea, compared to perception or imagination lacks intensity.\textsuperscript{107}

\textsuperscript{104} Volker Straebel, Wahrnehmung, Vorstellung und Erfahrung.

\textsuperscript{105} Volker Straebel, Wahrnehmung, Vorstellung und Erfahrung.

\textsuperscript{106} David Hume, An Enquiry Concerning Human Understanding, section II of the origin of ideas.

\textsuperscript{107} Volker Straebel, Wahrnehmung, Vorstellung und Erfahrung.
0.3 Summary

Due to this intensity perception is experienced as real. It is dependent on the present object. This unfamiliar object always implies the possibility of deceit. Therefore there is always an underlying uncertainty with perception. The idea, however, is a copy, therefore less intense and unreal, yet it is certain, as it is a product of my own constitution.

If one relates hearing (or rather listening) to idea and viewing to perception it will result in similar characteristics as the one for visual and acoustic sense as previously mentioned: Listening relates to the more immaterial character of the idea and because it derives from our own constitution listening is closer to us than viewing. Listening is strong and subjective. It is the sense of engagement. Viewing however is more material, in its perception dependent upon the present object and therefore more intense, which is also suggested in dominance over listening. Yet, at the same time it is more foreign to us, because the object it refers to is not inherent in us. Viewing is the sense of distance.
-1 Conclusion

Sound art moves between perception and idea, between listening and viewing. For a long time it was placed as an art form between the visual and the musical arts. This intermediate range does not really exist. As much as reception does not consist of one isolated sensation the reception of such a piece of art cannot be separated into its acoustical and visual elements. All of Christina Kubisch’s works aim at the entire relation of perception and idea. Their influence derives from the undivided interdependence of both areas of the mind.

For the recipient it is very difficult to abstract these interwoven correlations of senses, which are prevalent in the contrasting characteristics of perception and idea. Sound installations like the one by Christina Kubisch cannot really be divided. The visitor perceives everything at the same time. Perception and idea, viewing and listening are all one. The recipient is forced to detach himself from his visually dominant understanding in favour of a new holistic perception that is unknown to him.

This, however, makes it difficult for him to fully acquire the “idea of the art work, which presents this connection in a completely new light”: The art work remains self contained, because it not comprehensible in the sense of being verbalized, conceptually graspable and therefore not transportable as an idea. What cannot be disclosed through the visually dominant abstraction systems lives in the moment.108

Arjen Mulder describes this tangible interplay if perception and idea with the word “extramedial”. „In every medium there is something that touches the outside, the extramedial – that which the medium is about and yet is outside the medium’s reach, though it can be evoked, suggested, extolled. The extramedial, by definition, cannot be represented with media; if it could, it would be intramedial. Yet the extramedial can only be experienced thanks to media; we feel its presence before we have understood anything of the meaning of a work.”109

Yet, extramedial art that is tangibly difficult to grasp, or not at all, is of lesser value for the one who tries to approach it in order to differentiate it from other art forms. Art loses its elevated position. Artist and visitors become equal partners. Art that achieves its value only in its active engagement through the visitor is harder to commercialize and defies its depreciation of monetary evaluation. There is a character of application and engagement in this active experiencing of art.110

Christina Kubisch’s sound installation, too, are not aimed at the exposure of an abstract structure in the art work, but they orient themselves on what the visitor in the end does with it, how it is perceived in its application and in how far it

109 Arjen Mulder, „Understanding Media Theory“, p 21-22
integrates and engages with his view on life. The recipient engages with the
nature or intellectual contexts of the art work, oriented at his individual needs, in
form of self determined interaction.\textsuperscript{111}

Art styles which address a comprehensive perception try to refrain from reducing
the art to its potential of segregation by detaching the value of a piece from
abstraction for as long as possible. In today’s art visitors and artists are equal.
The focus is set on reception. The meaning of art is determined in the way it is
perceived, experienced and engaged in.\textsuperscript{112}

The visitor’s perception becomes the object of his own experience. Sound
installations such as those by Christina Kubisch are directed at reception, at the
interplay of perception and idea. The inseparability of these two intellectual
areas, which never completely expose themselves as extramedial context,
contains the key question regarding the differing intensities of perception and
idea. It is the question regarding the individual reception and its inherent truth.
Sound installations refer to individual perception and its challenge.

The writing of this text has given me a new consciousness of the engagement
with my own works. To me the conclusion that a sound installation is regarded
with a kind of application character is the most interesting aspect. This insight
enables me to create my position towards my audience with more awareness.
The fundamental knowledge that artist and visitor are equal partners leads me to
distinct considerations regarding my own works and their content. Therefore I
truly hope that in the future my own sound works will live up to this newly found
knowledge.

\textsuperscript{111} Golo Föllmer, Klanginstallation im öffentlichen Raum, Berlin 1995, p 23.
\textsuperscript{112} Golo Föllmer, Klanginstallation im öffentlichen Raum, Berlin 1995, p 36.
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