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Is the Sonic Neglected Within Contemporary Art?

By

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Declaration of Originality

This dissertation is submitted by the undersigned to the Institute of Art, Design &Technology, Dun Laoghaire in partial fulfilment of the examination for the BA (Hons) in Art. It is entirely the author's own work except where noted and has not been submitted for an award from this or any other educational institution.

Signed _____ Ellen Wise.

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Introduction

For this thesis, the subject of sound within contemporary art will be discussed to understand the lack of conversation revolving around the sonic in art. The premise of this paper is to ask the question of if sound art is an undervalued art practice by artists generally and if this affects the audience's views on sound art in turn. When researching the use of sound within art films or installations, it is apparent that unless an art piece's primary focus is sound, there is a clear absence of recognition of the importance of sound when it is incorporated into another medium.

Like the popular mediums of paint and clay, sound can also be an art medium with the same functions of being used to portray an artist's intention to a viewer. However, sound is a less common art medium when compared to those previously mentioned. It would be considered as a secondary thought or as filler, rather than that of a primary source of motivating the viewer's thoughts and influencing their ability to understand and appreciate the artist's intention.

The topics that will be discussed in the thesis will begin in chapter one with exploring what sound is philosophically and scientifically to better understand the relationship an individual has with sound in an artistic setting. This will be intended to lead to a better comprehension of sound art as a medium, how it is used artistically, how it is intended to engage the viewer. It will also delve into issues currently seen in the medium, explore these issues and will then cover sound art in its current form within the public domain as well as discussing the motivation behind why sound artists create using this medium. It will cover example artists to explore and support these findings such as Robin Minard, a Canadian composer who works with the relationship sound has with the space[1].

Chapter two will cover the role of visual art. It will also explore its role within the public sphere and how it viewed and engaged with by the public when viewing and appreciating artwork. It will then explore how visual mediums have historically dominated the art world in regards to its classic role in helping the viewer understand the creator's artistic intent in an effort to clearly and acutely illustrate why sonic aspects of artistic work may struggle to find footing within the list of priorities of the common artist when endeavouring to create immersive pieces.

This thesis will cover how visual art may differ from or compare to sound art in the third chapter to study how artists merge the two mediums, such as Mark Francis' paintings being created in favour of sound in an attempt to visualise the sonic[2]. The comparisons and differences between music and sound art will be researched, how their intentions compare and society at large responses to music and sound art. The investigation will also investigate why information and resources are limited within the realm of sound art, and why Rosana Cabán's article could be a valuable source of information as she discusses how sound art has developed as well as potential blockers to its success.

Sound within contemporary art does not necessarily have to be created through electronic speaker systems or instrumentation, but sound of the place in which the art is viewed can be just as engaging within the overall effect of the artwork. Moreover, this thesis seeks to investigate the notion that sound should be considered as a major factor in creating an experience within art despite sound within contemporary art still being considered a lesser documented element and a medium which is looked over by the viewer and by many artists as simply cold engineering or negligible to the larger experience. However, this thesis will investigate how sound manipulates our understanding of art in a meaningful and impactful way and will furnish possible explanations for the lack of acknowledgment and misunderstanding to sound within the art world as a whole.

[1] Robin Minard, "Curriculum Vitae" Robin Minard Silent Music, date not stated. See: https://robinminard.com/curriculum-vitae/ accessed: 20.01.23
[2] Mark Francis, title not stated, date not stated. See: https://www.markfrancisstudio.com/ accessed: 22.09.22

CHAPTER ONE

1.1 Sonic Negligence in Contemporary Art

In this chapter, the definition of sonic is discussed in both a scientific approach as well as what it is meant by sonic art within an artistic setting and how an individual could find value and meaning within sound art. With this in mind the value of sound art is less noticed than visual art. Using artists such as Aoibheann Greenan as reference, the lack of value is questioned with the combination of lack of communication and discourse around sound art.

1.1.1 What is Sonic

The word sonic derives from the word acoustic which is defined as the transmission of sound[3]. It broadly describes the audible effect of generated soundwaves, how a sound or melody vibrates through the air is how this energy is transferred to the listener through these vibrations.

When researching George Constantinesco's *Theory of Wave Transmission; A Treatise on Transmission of Power by Vibrations* , Constantinesco writes in his book that "A common method of producing sound is to cause an elastic diaphragm to vibrate, impressing its vibrations on the surrounding air, By isolating the air to which the vibrations are transmitted, as, for instance, by means of a speaking-tube, the sound can be directed and given quantity of energy of vibration produced and can this be transmitted over great distances."[4]

We may summarise the above definition by Constantinesco that sonics, within art, refer to the interaction of the energy generated by an artworks sound vibration with the viewer's ears and the energy transferred from one to the other through the air over these vibrations. When referring to sonic and use of sonics within this thesis, this will be the definition going forward. The word sonic is often used when referring to sound art. This is most likely not necessarily within the scope of the scientific process of soundwave energy, but rather the simple concept of understanding and appreciation of sound by a viewer. Many sound artists are known for challenging how we take in information with our sense of hearing and often play with the use of sonics to cause a desired response from the viewer, using certain sonics deliberately to realise their artistic intent.

1.1.2 Engagement of senses

To understand the role sound has within a gallery space and how it communicates with the viewer, the book *Ecological Psychoacoustics* by John G. Neuhoff is an interesting source for understanding forms of sounds, such as auditory display[5]. Auditory display refers to sound that provides information to the listener such as sirens or alerts, specifically the non-verbal. Neuhoff goes into detail about forms of listening and how an individual receives information, filing what we believe to be important sounds and less important, such as background noise.

Neuhoff explains that "Attending happens in real time. As listeners, we engage our acoustic environment as it unfolds; we actively track a speaker's utterance, monitor a child's playful noises, and notice as a kitten purrs"[6]. This quote by Neuhoff suggests that we "notice" and "monitor" sounds that happen around us without making the conscious decision to do so. It can be questioned whether it is that we keep our attention to sounds that matter to us individually. Considering his examples are of people and creatures such as the aforementioned examples that hold importance to most types of individuals, the question still stands on whether a person would "notice" sounds that may not hold much importance at first hearing.

Is it a true statement that listening is only present in bursts of focus within the present and is an instinctual process, spurred by subjective attachment that is individual to each listener? A listener's aural faculty is an involuntary perception that cannot be nullified on command. Thus, does that make listening less of an

[3] Department of Physics & Astronomy Acoustics Research Group "What is Acoustics" https://acoustics.byu.edu/what-is accessed 11/01/23

[4] George Constantinesco, *Theory of Wave Transmission; A Treatise on Transmission of Power by Vibrations*, (Charleston, South Carolina, BiblioLife, 2009), p. 3.

[5] John Neuhoff, *Ecological Psychoacoustics*, (New Braunfels TX, Barcelona Publishers, 2004), p. 150

[6] John Neuhoff, *Ecological Psychoacoustics*, (New Braunfels TX, Barcelona Publishers, 2004), p. 50

intentional task and more of a "to-be-attended"[7] process as described by Neuhoff whom often refers the act of someone listening as attending, the act of actively being present and choosing to be in a certain moment.

"A listener to focus on some portions of a distal event, and not others, requires a selective allocation of attending energy at critical points in time"[8]. This quote backs up the idea of noticing what holds importance to an individual and suggests it is required to be selective when focusing on a sound in particular. It does not seem to be an option to listen to all locally surrounding sonic, that our minds have an instinctual need to focus when listening in order "to-be-attended", though in reality it is also important to identify a minority of outliers with particular disorders that can affect their ability to focus on selected audio or a proclivity to hyper focus or hypo focus on audio based stimuli.
With this concept in practice, an individual will subconsciously choose what to focus on and will actively push out sounds that are deemed less important.

As explained by Salomé Voegelin' writings in *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, "As I walk through a busy urban street, I try to ignore the incessant hum of thick traffic, [...] the fact that I do not listen to them consciously or willingly does not mean that these sounds do not shape the reality as it presents itself to me.[9]"
Voegelin discusses the role of listening in comparison to hearing and how it affects how we consciously receive information. Voegelin suggests the passiveness sound can have upon a listener, in particular, the involuntary subliminal influence sound has. This can be argued within art pieces that include sound and how we subconsciously are influenced to feel and see certain aspects of a piece, but there could be a lack of mention of the sound within a piece to influence the viewers judgement.

1.1.3 Lack of communication regarding sound in works

An example of there being a lack of discussion or acknowledgment of the sound in the work is a piece created by Irish artist Aoibheann Greenan., who created an elaborate box used to portray the art of the reveal. Greenan took a great inspiration from ASMR YouTube unboxing videos. ASMR is explained further in this chapter. A brief explanation in context to the videos is that it is a content genre focused on aural stimulation of the listener through audio output captured with a low resistance, high definition microphone. Her film called *DINGBOX* was created with unboxing videos in mind, with the unboxing being the interest rather than the object itself being the sole focus. The video consists of a variant of different textures and materials and the tactile touch of the box was a main element of the piece. These tactile sounds were recorded and added to the video as a multichannel track, which means that the audio can capture sound coming from different directions at higher or lower volume based on proximity to the microphone, to allow the viewer to hear every movement and touch made in the piece, the use of electronic sounds is later introduced in the piece forming uncertainty and somewhat sinister undertone to the unboxing of the box.

ASMR stands for autonomous sensory meridian response[10], and it refers to the senses in your body responding positively to sounds and visuals, but primarily sound.[11] It is usually a tool used to help someone relax using visuals and sounds that a person may find satisfying. According to an article on Verywell Mind people describe the stimulation occurring in the head and the spine mostly when an act of producing a satisfying sound happens. The concept of ASMR became very popular on YouTube as creators on the platform produced videos of sounds and visuals that are satisfying, such as unboxing products they bought.

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[7] John Neuhoff, *Ecological Psychoacoustics*, (New Braunfels TX, Barcelona Publishers, 2004), p. 50
[8] John Neuhoff, *Ecological Psychoacoustics*, (New Braunfels TX, Barcelona Publishers, 2004), p. 51
[9] Salomé Voegelin, *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, (Bloomsbury Publishing, 2010), p.11

[10] Lisa M. Gerry, "What Is ASMR?", *Verywellmind*, (Updated on 13.08.22). See: https://www.verywellmind.com/what-is-asmr-4582673. Accessed 13.01.23.

[11] Lisa M. Gerry, "What Is ASMR?", *Verywellmind*, (Updated on 13.08.22). See: https://www.verywellmind.com/what-is-asmr-4582673. Accessed 13.01.23.

Figure 1 Coromo Sara ASMR, YouTube Video

The Image above depicts Youtuber Coromo Sara ASMR tapping with her fingernails on two wooden spoons near a microphone to pick up the sounds the wooden spoons create[12]. The title of the video is "ASMR for Those Who Want to Sleep Soundly Now / 3Hr (No Talking)"[13], many videos similar to Coromo Sara's target an audience that find the sounds in the video relaxing enough to fall asleep to. With no other sounds in the video except for the sounds of objects being tapped and moved, those sounds become maximized being next to the microphone. It allows the listeners to fixate on the particular sounds whilst they fall asleep instead of becoming distracted by background noises.

Greenan has displayed a great significance to there being a need for sound in her piece for it to be elevated with mentioning ASMR in the discussion blog between Greenan and Andros Zins-Browne, a visual artist and dancer[14]. However, in her artist statement summing up the piece, there is no mention of audio and sound. Zins-Browne does comment on it once stating "The sound and feel of everything is hi-tech"[15], although this is the only comment displayed on the website. With the website alone, there is no prompt for a viewer to acknowledge the sound and question its significance and how it structures the piece in the statement or the blog. In the description of the art piece, it states that sound designer Dominic Kennedy created the sound for the piece. This could be a possible reason for the lack of mention of the sound as it was not created by Greenan herself.

[12] Coromo Sara. ASMR, "ASMR for Those Who Want to Sleep Soundly Now / 3Hr (No Talking)", *YouTube*, (Uploaded on 2.12.21). See: https://www.youtube.com/watch?v=-SYwOAe6V_4&t=567s. accessed 11.01.23
[13] Coromo Sara. ASMR, "ASMR for Those Who Want to Sleep Soundly Now / 3Hr (No Talking)", *YouTube*, (Uploaded on 2.12.21). See: https://www.youtube.com/watch?v=-SYwOAe6V_4&t=567s. accessed 11.01.23
[14] Aoibheann Greenan, "Dingbox", *Aoibheann Greenan,* (Published in December 2020). See: https://www.aoibheanngreenan.com/dingbox. Accessed 04.11.22
[15] Aoibheann Greenan, "Dingbox", *Aoibheann Greenan,* (Published in December 2020). See: https://www.aoibheanngreenan.com/dingbox. Accessed 04.11.22

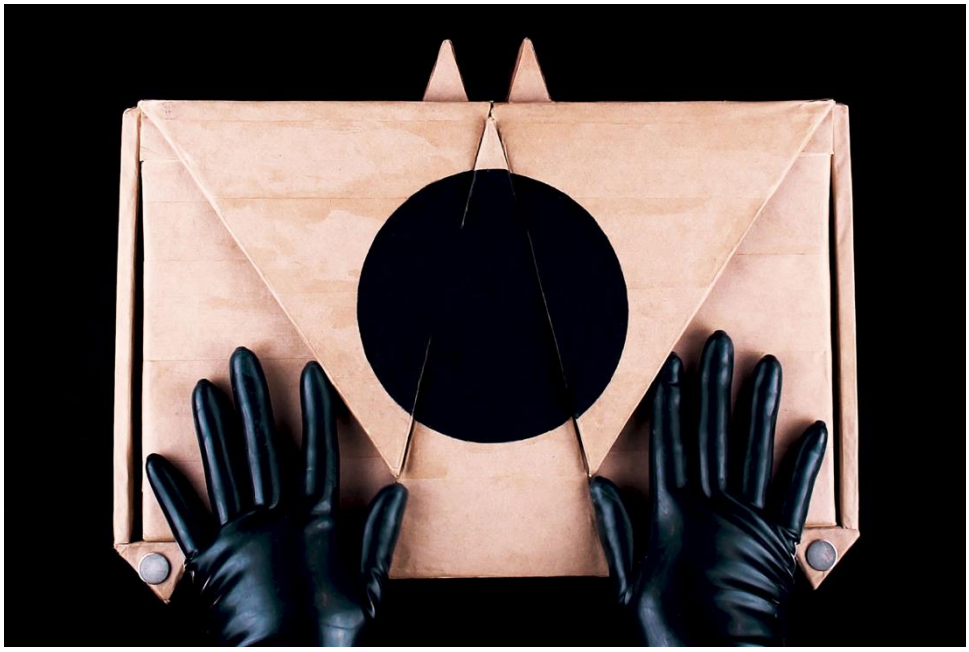

Figure 2 Greenan Aoibheann DINGBOX 2020

The image displayed above in figure 1 is a shot from Aoibheann Greenan's *DINGBOX*. A box made of cardboard and wood is shown designed with movable flaps and compartments, also shown is a pair of hands wearing latex gloves. Visually it is apparent that the materials used in *DINGBOX* would complement the ASMR theme as the gloves gliding against the cardboard would create a more acute sound than if the hands were not wearing latex gloves.

Neither is there a clear indication of discussing sound in the essay written by Jessica McGoff, instead there is sentences that indicate the significance of sound in the piece by stating other senses, such as "The sensation of touch is transposed to the eyes"[16]. Although McGoff is mentioning touch and sight in this sentence, the significance of the touch would not be as valued without the heightened sounds that engulf *DINGBOX* and make the viewer's ears twitch. Sound in the piece is what encourages the themes of sensation and touch to linger in the viewer's mind as the sound of latex scrapes on cardboard, allowing the viewer to be acutely aware of the sensation of the box. As Mcgoff explains that *DINGBOX* works as a "visuality that "functions like a sense of touch"[17] except the touch has been given its greater significance in the piece with the help of the sound circulating in the work.

The sound in *DINGBOX* is what allows the sense of touch to thrive which in turn allows the visuals to stand out as the viewer can hyperfocus on what the latex hands will touch next. Yet the sound has been hardly mentioned on Greenan's website and McGoff's essay on *DINGBOX*.
A reason for there being a lack of discussion of sound within contemporary art by the viewer and also artists is the lack of accessibility for everyone to appreciate it. An article on the website Hyperallergic, an arts magazine founded by art critic Hrag Vartanian[18], is an insightful source for understanding some of the reasons for why sound art might not gain as much attention as it may deserve. The article is by artist Rosana Cabán, who discusses in the article that a reason for the lack of public recognition of sound art is that it can be seen as uninviting, with the assumption that sound art must be made with high tech, which leaves the medium left in the niche category and only presented to the privileged few that understands the technology. Therefore, the privileged few are the ones given the chance to enjoy it[19].

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[16] Jessica McGoff, "introductory text by Jessica McGoff", *Aemi*, (date not stated). See: https://aemi.ie/works/aoibheann-greenan-dingbox-2020/ accessed on 04.11.22
[17] Jessica McGoff, "introductory text by Jessica McGoff", *Aemi*, (date not stated). See: https://aemi.ie/works/aoibheann-greenan-dingbox-2020/ accessed on 04.11.22
[18] Author not stated, "About Us", *Hyperallergic*, date not stated, See: https://hyperallergic.com/about/, accessed 30.09.22
[19] Rosana Cabán, "We Need to Move Toward Conceptual and Accessible Sound Art", *Hyperallergic*, (published on 14.12.21), See: https://hyperallergic.com/699629/we-need-to-move-toward-conceptual-accessible-sound-art/. Accessed 22.09.22

Cabán refers this to "Technology Fetishism"[20], and believes that many artists who specialise in sound art value the technology used for the art more than the art itself. This leads to the question of whether this could be an explanation among the other possibilities explored. Or if this explanation is far more likely a reason for the lack of recognition of sound art compared to the possibility of it being due to what a person would instinctually pay more attention to.
With Cabán's points in mind, This "Technology Fetishism" does not refer to Aoibheann Greenan's work *DINGBOX* as it is clear that Greenan's concern was with the visuals and the sound was used to help navigate the piece. Greenan is an important example of not only the viewer but artists alike avoiding conversations on the sonic in visual work, whether this be due to the concept of "being attended" like Neuhoff explains and naturally focusing on what we subconsciously believe to be important. Or how Salomé Voegelin explains that we are constantly influenced by our environment even if we are not consciously aware of its impact on our decisions and emotions.

1.1.4 Sound in the Public Domain

Figure 3 Price Elizabeth, The Woolworths Choir of 1979, Video Piece 2012

The lack of conversation around sound art could be due to its lack of representation within the art industry. There have been thirty-eight winners of the turner prize since 1984 and Susan Philipsz, is the first and only nominee and winner of the Turner Prize who is a sound artist[21]. Video pieces, performances and installations with sound in the work have also won the turner prize but sound would not be considered the primary element of the creation for the works.

Sound in a large amount of works that had won in the Turner Prize use sound as a guide for the visual such as Elizabeth Price's *The Woolworths Choir of 1979*[22] which incorporated sound. However, it is described on the Tate website as "video projection that combines archive footage, music and text"[23] and although there is a mixture of music within the work, there is a distinct mix of sounds such as the short burst of hand claps and

[20] Rosana Cabán, "We Need to Move Toward Conceptual and Accessible Sound Art", *Hyperallergic,* (published on 14.12.21), See: https://hyperallergic.com/699629/we-need-to-move-toward-conceptual-accessible-sound-art/. Accessed 22.09.22
[21] No specified author, "WHAT IS THE TURNER PRIZE?", *Tate*, (no date specified). See: https://www.tate.org.uk/art/turner-prize. Accessed 14.01.23.
[22] No author specified, "Turner Prize 2012 artists: Elizabeth Price", *Tate,* (no date specified). See: https://www.tate.org.uk/whats-on/tate-britain/turner-prize-2012/turner-prize-2012-artists-elizabeth-price accessed on 14.01.23
[23] Melissa Blanchflower, "Elizabeth Price, THE WOOLWORTHS CHOIR OF 1979, 2012" *Tate*, (published in January 2013). See: https://www.tate.org.uk/art/artworks/price-the-woolworths-choir-of-1979-t14214. Accessed on 14.01.23

clicks that can be heard throughout the video[24]. The description of the work is also explained as "architecture, a 1960s music performance and a furniture store blaze"[25] on The Guardian, which is a correct description of the piece but it makes the line between music and sound art more blurred. The definition of music and sound seems to determine on the artists choice and expression. And however valid this may be it can leave the audience confused on determining what music is and what sound art is.

A production project which blurs the line between sound and music is Emptyset which was founded by James Ginzburg and Paul Purgas who focus on the possibilities the sonic offers using electroacoustics[26]. The duo is known for its architectural installations that incorporate sounds and computer music such as in their project *Signal*[27] which explores sound within the ionosphere[28]. Emptyset continuously mix the concept of sound art and music together with not referring to themselves as musicians or as artists, but as a project. Their sounds are referred to as tracks and releases[29] with each track having a description like an Artist Statement such as the track *Signal* says "explores the effects of atmospheric propagation and transmitted sound"[30]. Although their works are displayed on music websites such as Soundcloud[31] and Spotify[32] their approach is like a hybrid of musicians and sound artists with not defining their work to one category. This could be to allow a wider audience to enjoy and experience their work from any angle, or perhaps this is due to the blurred line between deciding what music is and what sound art is.

Figure 4 Emptyset, 'Signal', Installation, 2015

[24] ITV London, "The Woolworths Choir of 1979" *Vimeo*, (uploaded on 04.12.12). See: https://vimeo.com/54843533. Accessed on 14.01.23
[25] No author specified, "Elizabeth Price's Turner prize-winning The Woolworths Choir of 1979 - video excerpt", *The Guardian",* (published on 04.12.12). See: https://www.theguardian.com/artanddesign/video/2012/dec/04/elizabeth-price-woolworths-choir-video. Accessed 14.01.23
[26] No author specified, "About", *emptyset,* (no date specified). See: https://emptyset.org.uk/projects/about. Accessed 24.01.23
[27] No author specified, "Projects", *emptyset,* (no date specified). See: https://emptyset.org.uk/projects/Signal. Accessed 24.01.23
[28] No author specified, "Projects", *emptyset,* (no date specified). See: https://emptyset.org.uk/projects/Signal. Accessed 24.01.23
[29] No author specified, "releases", *emptyset,* (no date specified). See: https://emptyset.org.uk/releases accessed 24.01.23
[30] Subtext Recordings, "Guardian - Emptyset - Signal - Stream (SUB015)", *Soundcloud,* (uploaded in 2016). See: https://soundcloud.com/subtext-recordings/sets/guardian-emptyset-signal. Accessed 24.01.23
[31] Subtext Recordings, see: https://soundcloud.com/subtext-recordings/sets/guardian-emptyset-signal
[32] Emptyset, "Emptyset", *Spotify,* (no date specified). See: https://open.spotify.com/artist/6iVzn7VOmHkhFAnB8XAGZ4. Accessed 24.01.23

CHAPTER TWO

In chapter two, the use of the visual within a contemporary art context will be discussed and how it is used to enhance and to be enhanced by other senses. The desire to see is a massive part of the human condition, artist Mark Francis who paints elements that cannot be seen by the naked eye will be used to back up this claim. The sense of sight dominates other senses with its easy to consume feature, if an individual have twenty twenty vision, a person does not need to be close to subjects to use and the information sight can take in is instant. This chapter uses one of Gary Hume's paintings as an example of this easy to consume concept in a gallery setting and the quick reaction time of making an opinion on something visual using research article *First Impressions* by Janine Willis and Alexander Todorov.

2.1.1 The Role of the Visual

It can be seen as only understandable that the visual has taken the hierarchy in the art world compared to sound art as some of the earliest documentation of visual art discovered can be dated to over thirty thousand years ago[33]. It is a highly documented form of art whereas sound art had only been properly established in 1913[34].

The visual within art is one of the most documented forms of experiencing art. The majority of people's first acknowledgments of art is taken in the form of seeing, whether it be colours on a canvas or the curves and forms of a sculpture, but to understand and utilise our seeing within art is what draws an individual in.
Art historian and critic, James Elkins, explains in the book *Visual Literacy*, "normal seeing is, in a very real sense, a form of extended, highly flexible touch."[35]Acknowledging the versatile abilities, the visual has within art and the ability to see can overlap with other senses, such as seeing texture and being able to understand the feeling a rough texture can create on skin. However, as much as being able to competently understand the material of visuals by seeing depth and texture. Our visual understanding was learnt from the experiences of other senses. As Elkins writes, "even though it is "universal" and "natural," it is not innate, not hard-wired into an organism, but must be learned."[36] explaining that the act of seeing does not mean you automatically understand what you are seeing. The use of touch, sound and smell combined for the overall development of how well we see.
Vision is a guide for understanding other senses, such as the sharpness of an object, it is visually apparent if, for example, a knife is sharp so there is no need to test if it is sharp by touching the blade. The size of an object can help an individual determine that if the object fell, would it make a loud noise or not. Although seeing is not fool proof for gauging the probability of other senses, it is usually considered the constant go to for assessing a situation due to the constant information flooded into the retinas. As accessible using vision is to understand our world, but more specifically art, the chance of missing out on other details is likely if other senses are not fully utilised.
In the book, *Seeing Motion: A History of Visual Perception in Art and Science* by Romana Karla Schuler, it discusses the theories of Natural scientists such as Ernst Mach and Hermann Helmholtz and the significance art has for understanding our senses and how we receive information[37]. Schuler discusses the theories of Helmholtz and quotes from his Handbook: "The sensory perceptions are signs for our consciousness in which understanding the meaning is left to our mind"[38] This quote could mean two things yet the interpretation can still lead to the same idea of creativity, the use of our senses are what charge the creative side of the human brain, or the meaning of the information we are receiving from our senses can be left to the human brain creating its own interpretation. Both suggestions are allowing a more philosophical approach to how the brain receives information from senses.
When discovering anything, it is usually expected to prove it visually, regardless to if the discovery is sonic. Ernst Mach for example, who was a Physicist and Philosopher, contributed largely to the study of shock waves.

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[33] Gillian M Morriss-Kay, "The evolution of human artistic creativity", *National Library of Medicine*, (published 06.11.09), See: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2815939/. Accessed 19.01.23
[34] Author not specified, "Sound art", *Tate*, (date not specified). See: https://www.tate.org.uk/art/art-terms/s/sound-art. Accessed 20.01.23
[35] James Elkins, *Visual Literacy*, (Oxfordshire, Routledge, 2007). P. 13
[36] James Elkins, *Visual Literacy*, (Oxfordshire, Routledge, 2007). P. 13
[37] Romana Karla Schuler, *Seeing Motion: A History of Visual Perception in Art and Science*, (Berlin, De Gruyter, 2015).
[38] Romana Karla Schuler, *Seeing Motion: A History of Visual Perception in Art and Science*, (Berlin, De Gruyter, 2015). P.16

Yet to truly prove his theories he produced an image using a shadowgraph to visually show the existence of shock waves. No audible or tactile evidence can suffice.

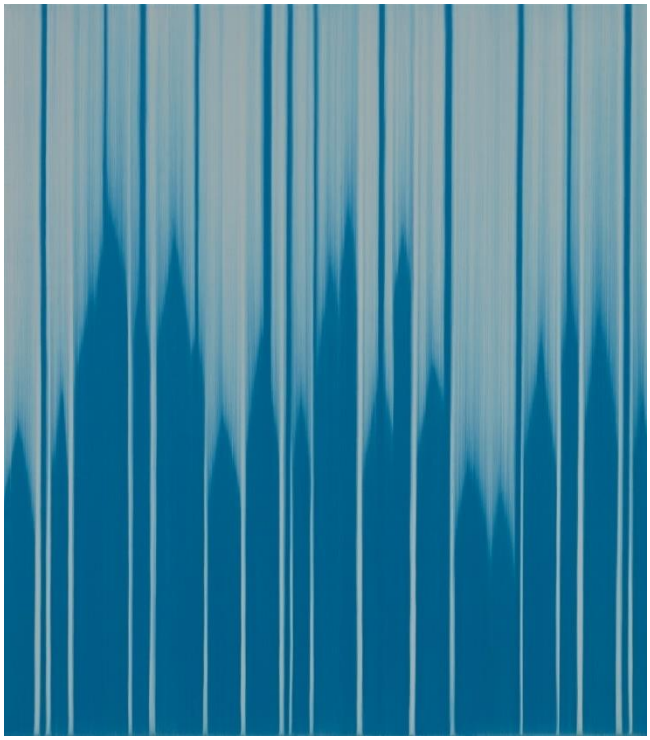

Figure 5 Francis Mark, Blue Noise, 2021, Oil on Canvas, 66x53cm

An example of revealing what the naked eye cannot see is Mark Francis' large scale paintings that depict shapes and waves of matter than the human cannot see without the assistance of technology[39]. Figure 2 displayed above shows Francis' painting of sound waves with the title *Blue Noise*. Blue noise is a noise colour that is similar to white noise which is defined as a sound that has the same intensity throughout the frequency, such as TV static[40]. The difference between the two noises is that blue noise has a higher frequency, where its signal increases the equal amount to its frequency[41]. It is called blue noise as the colour blue is of higher frequency to visible light[42].

Francis is known for dedicating his career to visualising what is invisible to the human eye[43], this includes sound, forming marks and shapes that best depict what technology can pick up for us. Francis fills the viewers curiosity of what invisible matter would be shaped and what colours best compliment the shapes of frequencies, whether they are accurate depictions or not. The collection of Francis' works is a visual representation of the desire to see in order to believe, not only within science as there is technology to visualise the invisible like the shadowgraphs mentioned earlier. But also within art there is a desire to interpret senses through visual mediums.

[39] No author specified, "Biography", *Mark Francis,* (no date specified). See: https://www.markfrancisstudio.com/biography/. Accessed 16.01.23

[40] Joseph Castro, "What Is White Noise?", *Livescience,* (29.07.13). See: https://www.livescience.com/38387-what-is-white-noise.html. Accessed 17.01.23

[41] Joseph Castro, "What is Blue Noise?", *Livescience,* (31.07.13). See: https://www.livescience.com/38583-what-is-blue-noise.html. Accessed 17.01.23

[42] Joseph Castro, "What is Blue Noise?", *Livescience,* (31.07.13). See: https://www.livescience.com/38583-what-is-blue-noise.html. Accessed 17.01.23

[43] No author specified, "Biography", *Mark Francis,* (no date specified). See: https://www.markfrancisstudio.com/biography/. Accessed 16.01.23

2.1.2 Why visual art is appealing to the public

In Western society, it is common to prioritise the visual over the sonic[44], an example given in Sylvia Mieszkowski's book *Sonic Interventions* is how in western culture it is common to fixate on how we look over how we sound[45]. This suggests that there is power in how something may be presented, just like the phrase 'make a good first impression'.

How a person first visualises a subject can be crucial to the strength of an opinion of the subject is, which can be similar to how people can form a judgment on someone's appearance in as little as a tenth of a second according to research article 'First Impressions' by Janine Willis and Alexander Todorov[46]. Willis and Todorov noticed that the judgment a person makes in the first few seconds of seeing an unfamiliar face is what anchors the rest of the impression a person may make from looking at a face[47].

Although Willis and Todorov created this study to analyse how quick it is for a person to create a strong opinion on someone's face, this research could follow through to how an individual makes a judgment on a visual piece of art without any context of the work displayed. The opinion created can be almost immediate with how quickly our eyes receive the information given, the subject of the visual art can be abstract with no clear visual of items or figures that can be detected clearly however the brain makes an immediate impression from the information given.

How quick the mind creates a judgment on what is visualised allows an individual to understand and process visual art quickly. Unless looking at a piece of art for a longer period of time, the mind may not take in all the information quickly but can come to an understanding of what is in front of an individual in the matter of

[44] Sylvia Mieszkowski, , Joy Smith and Marijke De Valck, *Sonic Interventions*, (Leiden, The Netherlands BRILL, 2007), p.11
[45] Sylvia Mieszkowski, , Joy Smith and Marijke De Valck, *Sonic Interventions*, (Leiden, The Netherlands BRILL, 2007), p.11
[46] Janine Willis and Alexander Todorov, "First Impressions", Vol 17, P.597. See: https://web.archive.org/web/20140715094146/http://psych.princeton.edu/psychology/research/todorov/pdf/Willis%26Todorov-PsychScience.pdf. Accessed 13.01.2023
[47] Janine Willis and Alexander Todorov, "First Impressions", Vol 17, P.597. See: https://web.archive.org/web/20140715094146/http://psych.princeton.edu/psychology/research/todorov/pdf/Willis%26Todorov-PsychScience.pdf. Accessed 13.01.2023

Figure 6 Hume Gary, Cerith, 1998, 108.6 X 83.9 CM, Screen Print

seconds. As mentioned in Rudolf Arnheim's book *Visual Thinking* "perception is purposive and selective"[48] suggesting that an individual naturally picks out the information in front of them starting with most importance. This can be said when viewing art work where the mind will highlight the importance in the work whether it be a colour or a figure which links to the fast rate the mind makes a judgment. It can be suggested that this process happens subconsciously as Arnheim writes that "the optical recording in the eye is largely a passive process."[49]

The image above depicts Gary Hume's screen print *Cerith* which uses a total of five colours and gives the impression of a portrait with the details of eyelashes, the blue meeting the grey toned blue to form a hairline and ears. The marks are simple yet effective with the striking yellow background which compliments the blue. This is an example that even the simple use of shapes and colours still allows the eye to act "Purposive and selective"[50]. The description of *Cerith* on the Tate website mentions the blue short hair, eyelashes and pink disc that is positioned near the ear[51]. Although pointing out these details may seem obvious, it shows how quickly consumable visualising art can be, a passer-by is able to take a glance and fully retain the visual information given in the matter of seconds. This may not mean that the work is understood, but it can be visually consumed quickly.

[48] Rudolf Arnheim, *Visual Thinking*, (Oakland, California, University of California Press, 2004) P.19
[49] Rudolf Arnheim, *Visual Thinking*, (Oakland, California, University of California Press, 2004) P.19 - 20
[50] Rudolf Arnheim, *Visual Thinking*, (Oakland, California, University of California Press, 2004) P.19
[51] Elizabeth Manchester, "Gary Hume, Cerith, 1998" *Tate,* (Published 2002). See: https://www.tate.org.uk/art/artworks/hume-cerith-p78688. Accessed 19.01.23

CHAPTER THREE

Chapter three will discuss the appealing aspect of sound, and the subtly it brings to our lives with the exclusivity it holds, which Salomé Voegelin discusses. It will also highlight the value of acoustic sounds and how Murray Schafer believes that technology does not hold the same impact of soundscapes. Although technology allows sound artists and composers to do so much with sounds, it has its limitations for the general public wanting to understand sound art.

3.1.1 Why the sonic is appealing

The sonic falls onto the listener in unique ways in comparison to the visual. If we no longer want to see a certain image in front of us, we can simply look away. However, Salomé Voegelin who is an author and artist who focuses on the logic of sound[52] explains the immersion of sound without the listener's choice on the matter. "Noise does not have to be loud but is has to be exclusive . . . . This can be achieved through tiny sounds that grab my ear and make my listening obsessive and exclusive"[53] Voegelin discusses the invasion of what could be considered insignificant noises that can grab our attention without our conscious choice in noticing the sound. Voegelin goes to discuss through example the act of a downstairs neighbour making noise can captivate their attention all afternoon[54] and that this example can be also said about sound art and the possession it has of the viewer, the lack of choice the listener has over what they may be succumbed to. Sound follows us into other rooms and for long distances, so as sound art is made with the need for the individual to pay attention to the sounds emanating

As appealing technological sounds can be, a listener may take recorded sounds for granted, and not valuing acoustic sounds. Technology does the listening for us, picking up the decibels that would be considered more valuable and cancelling out the background noise, selecting what is assumed to be valuable sound to the listener. Electronic sound is programed to sharpen particular sounds and varying where the sound is placed within the headphones, that guidance could be what makes us sonically lazy in natural soundscapes. This was the Philosophy of R. Murray Schafer[55], who was a Canadian composer who discussed the impact of the natural soundscape compared to recordings of sound in a short video with Canadian film producer company National Film Board.

Murray Schafer believed to gain a true authentic experience of sound is from hearing it in its natural environment, the of production of sounds will never have the same authenticity and in the modern world as a species we are surrounds why technological sounds constantly, fed a diluted version of the potential sound could have. The audio in the video referenced cuts off and he encourages the viewer to listen to the natural sounds in the space you are currently situated in, bringing up the question of if there is a difference in how we listen if it is natural or is it is technologically produced. Does our over sensitisation of produced sounds make the listener not have to focus on listening to the same degree as listening to authentic sounds?

To understand how technologically produced sounds are sent out of a receiver, it can be imagined as if the output devise has one line that all the sound travels on, unless you have a stereo that has several channels to output the sound, otherwise a mono signal outputs audio through one channel[56]. Combining all the sounds together and not allowing the listener to decipher a spatial concept of where the sounds are coming from, it does all the work for you. Meaning the listener doesn't need to focus on their listening skills to the same degree as it would be to listen to natural sounds that come from different parts of the space you are in.

A stereo that has several channels can allow the listener to hear the audio from different parts of a space, but those a human chosen areas of where sound can be heard from, not natural. This could affect listening skills in a natural environment as people have become use to not having a need in focusing on the smaller sounds that

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[52] Author not stated, "Salomé Voegelin", *Salomé Voegelin,* (date not stated), See: https://www.salomevoegelin.net/. Accessed 11.11.22

[53] Salomé Voegelin, *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, (Bloomsbury Academic & Professional, 2010). P. 43-44.

[54] Salomé Voegelin, *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, (Bloomsbury Academic & Professional, 2010). P. 44

[55] Daniel Bianchi, "Listen (escucha) Murray Schafer", *YouTube,* (03.11.15). See: https://www.youtube.com/watch?v=5q1rpNNnCUc&t=180s. Accessed 24.01.23

[56] Charles Hoffman, "Mono vs. Stereo Sound: The Difference Explained (With Audio Examples)", *Black Ghost Audio*, (09.05.22). See: https://www.blackghostaudio.com/blog/mono-vs-stereo-sound-the-difference-explained-with-audio-examples. Accessed 24.01.23

technological audio usually cuts out. Becoming Knowledgeable on Murray Schafer's thoughts on how removed a modern listener is from true abilities in listening are due to the filtering of technological sounds can create more of an understanding and perhaps build onto the reasoning for the lack of consideration for the sonic in contemporary art.

If Murray Schafer's theory is true, the modern listener relies too much on the channels of technology to be able to truly listen and to follow on with Voegelin's point highlighted earlier, the ear can focus on exclusive sounds obsessively, picking up on a few elements of the sonic instead of many. The attention to detail when it comes to sound can be lost subconsciously compared to the detail someone could describe with the visual.

Although Murray Schafer believes that the recording and technological output of sounds in an unauthentic form of true listening, Robin Minard sets his career around taking the natural sounds of the world and placing them in a space and giving sound a location using electroacoustics. "Electroacoustics enable us to do things that were not previously possible. They allow us to uniformly color a space with sound"[57]. Minard envisions sounds as locations with his installations and documentations, for example, he created an audio piece by recording the acoustic sounds of different locations in Germany to then through a web program designated the sounds to where they were recorded from onto a map of Germany. The work is called The German Sound Map[58], where a user may select a location and listen to the sounds that had previously been recorded in that area.

Figure 7 Minard Robin – The German Sound Map - Documentation

Minard is not using sounds to help the visualisation of an image or of visual art but using visual tools such as maps to give sound a space as if it is a physical form. Minard allows sound to exist further than being waves we can hear, but waves that exist all around us. This can allow the listener or viewer to question the roles of sound and visuals and how they work together in a space. Another work Minard produced which physically places the sounds around the listener is the installation On and Between[59] which uses a multi-channel system of speakers that spread the course of one hundred meters in the installation space[60].

The sounds that are outputted through the speakers is what form a wall of sound when walking through the columns of which they are installed on, as if creating a physical barrier of natural sounds that Minard found and recorded outside the installation space[61]. This is a physical representation of sound in a location or space compared to The German Sound Map and allows the listener to visualise the sounds that are being produced depending on the location that Minard sets the work in. Which can lead to the question on the complexity of sound and visuals and whether their contribution to the creative eye or ear is synonymous. The two senses work together constantly throughout the world but does their effect on art combine as one as Minard's work gives sound a visual space for a listener to be encaptivated by an individual's own senses.

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[57] Robin Minard, "Home", *Robin Minard,* (No date stated). See: https://robinminard.com

[58] https://robinminard.com/video-documentations/ Accessed 25.01.23

[59] No Author Stated, "On and Between", *Robin Minard,*(2017). See: https://robinminard.com/portfolio/on-and-between/. Accessed 25.01.23

[60] Philharmonie, "«On and Between» Sound Installation by Robin Minard | rainy days 2017" *YouTube,* (15.11.17). See: https://www.youtube.com/watch?v=wcoyAgqErD4. Time: 02:03 - 02:28, Accessed 25.01.23

[61] Philharmonie, "«On and Between» Sound Installation by Robin Minard | rainy days 2017" *YouTube,* (15.11.17). See: https://www.youtube.com/watch?v=wcoyAgqErD4. Time: 01:00 – 01:16, Accessed 25.01.23

Figure 8 Minard Robin – On and Between - Installation

3.1.2 How sonic is undervalued

With the sense of hearing being one of the human's primary senses, it is not surprising to be aware of the importance of hearing and listening, however the appreciation of the sonic within a contemporary art context may be blurred due a variety of negative impacts that sonic art may face. A primary example of such an issue would involve electroacoustics, requiring a certain level of quality within the hardware producing the audio. This can be a hard limitation as not every person or artist will have access to such hardware. Furthermore, this limitation impacts the arts ability to translate away from the original installation. Visual art can be appreciated offsite from the original instillation on mobile devices or through photographs, although this would require high quality equipment to photograph the original visual piece, the content is less likely to be lost through second hand images, whilst audio may not be able to be correctly reproduced through inferior hardware, thus distorting the true impact of the sonic within the piece. An example of this being the case is Robin Minard's sound installation *On and Between,* [62] which uses two hundred piezo loudspeakers[63] and sixty four mp3-players[64] which run through a sixty eight channel audio deck. Here is a reference to a twenty four channel audio deck which is less than the sixty eight channels that Minard used but one can surmise that either multiple audio decks

[62] No author stated, "On and Between", *Robin Minard*,(2017). See: https://robinminard.com/portfolio/on-and-between/. Accessed 25.01.23

[63] No author stated, "KERDEJAR 1 Pair 96mm Audio Speakers Tweeter Piezo Treble Piezoelectric Speaker Portable" *Amazon,* (no date stated) See: https://www.amazon.co.uk/KERDEJAR-Speakers-Tweeter-PiezoelectricPortable/dp/B08QGTYJGL/ref=sr_1_3_sspa?crid=61DI3BCN84H7&keywords=piezo+speaker&qid=1676544556&sprefix=piezo+speaker%2Caps%2C49&sr=8-3-spons&sp_csd=d2lkZ2V0TmFtZT1zcF9hdGY&psc=1. Accessed 16.02.23

[64] No Author Stated, "Mp3 Player, DSD DAC HiFi Lossless Music Player, SWOFY High Resolution Portable Digital Audio Player with 64GB Memory Card, Support Up to 256GB, Black", *Amazon,* (dated not stated). https://www.amazon.co.uk/Lossless-SWOFY-Resolution-Portable-Digital-Black/dp/B0B38BGMZT/ref=sr_1_3?c=ts&keywords=MP3+%26+Digital+Audio+Players&qid=1676544952&s=network-media&sr=1-3&ts_id=573372. Accessed 16.02.23

were used or one very expensive sixty eight channel audio deck.[65] From researching average prices of the equipment the approximate cost could vary from €10,000 to upwards of €50,000. This could be a particular circumstance with Minard but if there is other sound artists who use high tech to achieve sonic art and installations, it is not a cheap medium to partake in. Leading to access to high quality audio being limited to an average listener and producer of sound.

Due to the expenses that are required for high quality audio equipment, how a work is made may be valued more than the work itself[66] like Cabán explains in her article "We Need to Move Toward Conceptual and Accessible Sound Art"[67]. Cabán's concerns involve the inclusivity of sound art with an attitude described as "If you don't get "it," then the assumption is that you must not understand the practice of "deep listening"[68]. This attitude could be noticed but for acoustic sounds with Murray Schafer, as he encourages the listener to 'listen' to the acoustic landscape instead of allowing electroacoustic sounds to dictate what the listener will hear next. Murray Schafer says in video 'Listen', "I think if you listen carefully your life is enhanced"[69], Murray Schafer insists for the listener to reduce electronic audio and practice listening to acoustics[70], which could be insightful advice, but it insinuates that the listener does not listen to sounds correctly. Labelling the act of listening as a niche skill that many listeners do not do correctly can ostracise the listener from the experience of work produced.

3.1.3 The role of technology

Technology is one of the largest factors for allowing artists to experiment with sound with visual works. Acoustic sounds may not require technology for it to be involved in visual art, however acoustic sound is an in the moment experience. As Murray Schafer says in the video 'Listen' "every sound commits suicide […] and would never be heard again, not exactly the same way."[71] Highlighting the fact that all acoustic sounds are unique, with this in mind, before the recording of sounds was possible or accessible to a wide audience to reach a large audience with sound within art was not an easy task.

Visual art such as paintings will stay in the moment and do not require movement or action in order for it to be constantly visible to a viewer, even before photography, paintings can continue to exist in a space without the need of the artist to continuously attend the visual work, allowing many viewers to come and go for centuries to admire. Paintings such as The Arnolfini Portrait by Jan van Eyck was painted in 1434[72] and holds residency at the National Gallery in London, which according to Statista, a statistic website, receives 184.3 thousand visitors monthly[73]. For centuries, paintings such as The Arnolfini can be viewed and admired without technology needed

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[65] No Author stated, "Trident 68 Console", *Trident Audio Developments,* (date not stated). See: https://tridentaudiodevelopments.com/product/trident-68-console/. Accessed 16.02.23
[66] Rosana Cabán, "We Need to Move Toward Conceptual and Accessible Sound Art", *Hyperallergic,* (published on 14.12.21), See: https://hyperallergic.com/699629/we-need-to-move-toward-conceptual-accessible-sound-art/. Accessed 22.09.22
[67] Rosana Cabán, "We Need to Move Toward Conceptual and Accessible Sound Art", *Hyperallergic,* (published on 14.12.21), See: https://hyperallergic.com/699629/we-need-to-move-toward-conceptual-accessible-sound-art/. Accessed 22.09.22
[68] Rosana Cabán, "We Need to Move Toward Conceptual and Accessible Sound Art", *Hyperallergic,* (published on 14.12.21), See: https://hyperallergic.com/699629/we-need-to-move-toward-conceptual-accessible-sound-art/. Accessed 22.09.22
[69] Daniel Bianchi, "Listen (escucha) Murray Schafer", YouTube, (03.11.15). See: https://www.youtube.com/watch?v=5q1rpNNnCUc&t=138s Time: (01:15 – 01:19). Accessed 06.02.23
[70] Daniel Bianchi, "Listen (escucha) Murray Schafer", YouTube, (03.11.15). See: https://www.youtube.com/watch?v=5q1rpNNnCUc&t=138s. Time: (3:30 – 4:53)
[71] Daniel Bianchi, "Listen (escucha) Murray Schafer", YouTube, (03.11.15). See: https://www.youtube.com/watch?v=5q1rpNNnCUc&t=138s.Time: (02:53 – 02:59)
[72] Author not stated, "The Arnolfini Portrait", *The National Gallery",* (Date not stated). See: https://www.nationalgallery.org.uk/paintings/jan-van-eyck-the-arnolfini-portrait. Accessed 13.02.23
[73] Statista Research Department, "Number of monthly visits to the National Gallery in London, England from March 2018 to September 2022" *Statista,* (published 06.01.23). See: https://www.statista.com/statistics/508126/national-gallery-monthly-visits-england-uk/. Accessed 13.02.23

or the participation of the artist in order for the painting to be seen. For the first sounds used within art during the Dada Movement[74], without the use of technology to record sounds, sound art would over time become forgotten with less individuals having experienced the sounds within art to carry it through the decades.

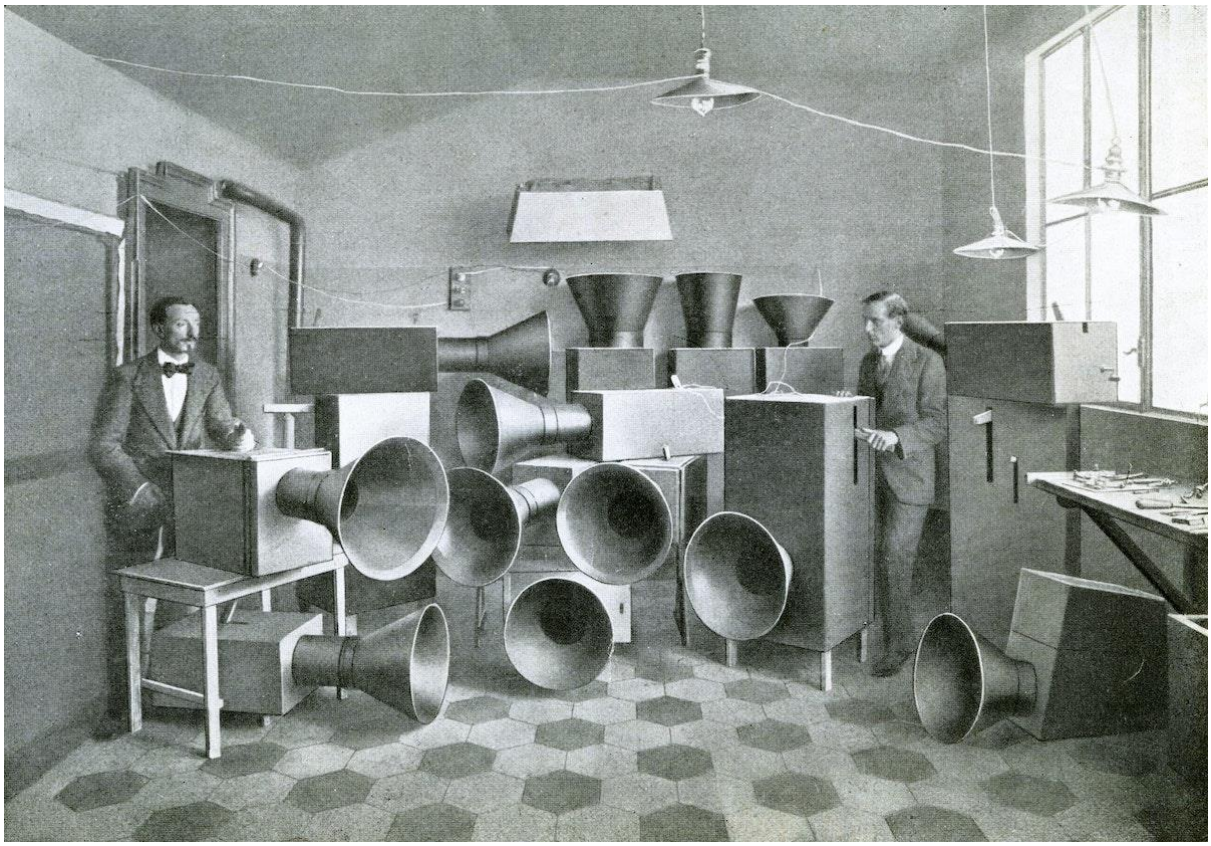

Figure 9 Russolo Luigi, Noise Machines, 1916

Luigi Russolo from 1913 till 1930 built noise machines which create the sounds of the industrial revolution[75]. Russolo was one of the first artists known for the incorporation of the sonic in art[76]. With the help of images such as fig. 9 and audio recordings[77], listeners and viewers can experience the sound of the Noise Machines over a century later, making technology a vital factor for keeping the sonic within art alive. Unlike paintings, which an individual has a better chance of viewing in person without the aid of technology, the sounds that emanate from the audio recordings of Russolo's Noise Machines[78] will not be able to regenerate how the sounds filled a room and interacted with the surroundings, the present experience is lost in the audio of the original sound. Although Technology is a vital tool for keeping past sounds alive, the listener misses out on the in-present experience which is a lot more accessible with visual art.

[74] Author not stated, "Sound Art", *Tate*, (date not stated). See: https://www.tate.org.uk/art/art-terms/s/sound-art. Accessed 13.02.23
[75] Author not stated, "Sound Art", *Tate*, (date not stated). See: https://www.tate.org.uk/art/art-terms/s/sound-art. Accessed 13.02.23
[76] Author not stated, "Sound Art", *Tate*, (date not stated). See: https://www.tate.org.uk/art/art-terms/s/sound-art. Accessed 13.02.23
[77] Author not stated, "Intonarumori", *Medienkunstnetz,* (date not stated). See: http://www.medienkunstnetz.de/works/intonarumori/audio/2/. Accessed 14.02.23
[78] *Medienkunstnetz*, see: http://www.medienkunstnetz.de/works/intonarumori/audio/2/

Conclusion

The aim of this thesis was to explore the curiosity of why the sonic is less recognised within contemporary art compared to visual art. To understand why artists may not discuss the sounds that are used in the works produced as much as the visuals. There seems to be multiple factors to why this could be the case. Sound art is a relatively new medium in comparison to visual art with sound being properly established in 1913[79]. The difference in the time that visual has had to be practiced, explored and documented has allowed it to be a much more recognisable element to any art piece even with sound included in the works. Visual art has the ability to be consumed at much quicker speeds due to our perception being "purposive and selective".[80] Although all the information from the visual art may not be taken in or fully understood, it is a lot more possible to at least take in enough information to gather the foreground information quickly. In comparison to sound in art as sound is a time base medium, for time based mediums to be consumed fully, it requires more time which could require the listeners drive to listen, a viewer does not need as strong of a drive in order to see.

There seems to be a tendency for the line between sound art and music to merge together with works such as Elizabeth Price's 'The Woolworths Choir of 1979'[81] and Emptyset's sound projects[82]. With Price's work being known for having music in it although it can be argued that there is a large amount of sound exploration which could be deemed as sound art in the work, it seems to be a matter of interpretation of the artist of whether their work is focused on music or sound. Whilst Emptyset do not define their works by art or music but title themselves as a project, neither label defines them which could be to attract a variety of viewers or it could be due to the lack of solid differences between music and sound art as it can be difficult to define Emptyset's sounds.

In Chapter one, with the research found, it seems that sound art is a difficult medium to define, from ASMR being referenced in Aoibheann Greenan's work making the connection to sound a high priority within her work although the discussion of sound is limited. ASMR may not fall under the category of sound art however it is an experimental medium of individuals such as Coromo Sara ASMR exploring different ways to create unusual and satisfying sounds, that element of creativity is seen in Greenan's work yet the discussion of this area is spars. Perhaps Greenan had chosen to not define her work as exploring sound art like with Elizabeth Price's 'The Woolworths Choir of 1979'. Price's work is referred to containing music within the piece yet how music or sound art is defined seems to become more difficult to identify the differences, as Price's 'The Woolworths Choir of 1979'could be argued as a sound art piece. This is more apparent with the duo Emptyset, who nor define themselves as musicians or artists but as a project. The ambiguity of their title allows the duo to branch their creativity in any area they may desire, although this could be seen as a confusing solution to the project, it could be to leave the definition up to the individual listener. What it means to create sound art seems ambiguous and there is no set in stone answer in defining it, which could be the reason for the lack of communication around the medium, thus forming a sonic negligence.

Chapter Two looks at the research on the importance of the visual. It is understandable that the visual is one of the human being's most dominant sense, with the ability to understand other senses through sight, such as steam coming off water to suggest that the water would feel hot. Although other senses are needed and are valued, the visual can override an individual's ability to optimise other senses. This could be due to Arnheim's point of seeing being a passive process, there is not much effort usually needed to consume visuals, this is not to say that the intake of visuals done passively will be as optimised as an individual visually analysing, but the process happens a lot more naturally.

Chapter Three explored the appealing nature of sound and the personal, individual experience of sound. With Murray Schafer explaining that acoustic sounds can be heard only once uniquely and will never be heard the

[79] Author not stated, "Sound Art", *Tate,* (date not stated). See: https://www.tate.org.uk/art/art-terms/s/sound-art. Accessed 13.02.23

[80] Rudolf Arnheim, *Visual Thinking*, (Oakland, California, University of California Press, 2004). p.19

[81] ITV London, "The Woolworths Choir of 1979" *Vimeo*, (uploaded on 04.12.12). See: https://vimeo.com/54843533. Accessed on 14.01.23

[82] No author stated, "Projects", *emptyset,* (no date specified). See: https://emptyset.org.uk/projects/Signal. Accessed 24.01.23

same again, Murray Schafer pushes the value acoustic has and the rarity of unique sounds. With this in mind it could be suggested that sound art does not necessarily need to be produced electronically, however the accessibility to sounds narrows without the use of technology to reach a larger audience. Counter this, acoustic art retains accessibility through its removed requirement of expensive technology, which can also be a limiting barrier to entry to the space for new artists.

In summary sound within visual art becomes overlooked due to many factors. The lack of clear definition between music and sound creates a struggle for defining the two mediums, with the definition of the sonic's place within art regularly being up for interpretation for the artist or the audience. Sound is a time-based sense, requiring more attention from the listener in order to experience it in comparison to the instantaneous gratification factor of the visual, more visual can be consumed at a faster pace in comparison to sound. Although the need for giving more attention and care in order to experience the sonic in art can be a rewarding and valuable experience, it does not make the sonic as accessible to larger audiences, making the market for consuming sound highly niche in comparison to the visual, and generally leads to the fetishism of the technology or process producing the sonic rather than the sonic itself.

Sound is a tool that helps navigate the visual in works without the audiences being consciously aware. It is a vital element for contributing to the audience's appreciation of works, however due to its more subtle influences, it leads to artists and audience's neglecting its value within contemporary art.

Bibliography

Books

Arnheim, Rudolf, *Visual Thinking*, Oakland, California, University of California Press, 2004.

Constantinesco, George, *Theory of Wave Transmission; A Treatise on Transmission of Power by Vibrations*, Charleston, South Carolina, BiblioLife, 2009.

Elkins, James, *Visual Literacy*, Oxfordshire, Routledge, 2007.

Mieszkowski, Sylvia, Joy Smith and Marijke De Valck, *Sonic Interventions*, Leiden, The Netherlands BRILL, 2007.

Neuhoff, John, *Ecological Psychoacoustics*, New Braunfels TX, Barcelona Publishers, 2004.

Schuler, Romana Karla, *Seeing Motion: A History of Visual Perception in Art and Science*, Berlin, De Gruyter, 2015.

Voegelin, Salomé, *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, Bloomsbury Publishing, 2010.

Articles

Willis, Janine, and Todorov, Alexander, "First Impressions", Vol 17, P.597. See: https://web.archive.org/web/20140715094146/http://psych.princeton.edu/psychology/research/todorov/pdf/Willis%26Todorov-PsychScience.pdf. Accessed 13.01.2023

Electronic Sources

Amazon, "KERDEJAR 1 Pair 96mm Audio Speakers Tweeter Piezo Treble Piezoelectric Speaker Portable" *Amazon*, (no date stated) See: https://www.amazon.co.uk/KERDEJAR-Speakers-Tweeter-PiezoelectricPortable/dp/B08QGTYJGL/ref=sr_1_3_sspa?crid=61DI3BCN84H7&keywords=piezo+speaker&qid=1676544556&sprefix=piezo+speaker%2Caps%2C49&sr=8-3-spons&sp_csd=d2lkZ2V0TmFtZT1zcF9hdGY&psc=1. Accessed 16.02.23

Amazon, "Mp3 Player, DSD DAC HiFi Lossless Music Player, SWOFY High Resolution Portable Digital Audio Player with 64GB Memory Card, Support Up to 256GB, Black", *Amazon*, (dated not stated). https://www.amazon.co.uk/Lossless-SWOFY-Resolution-Portable-Digital-Black/dp/B0B38BGMZT/ref=sr_1_3?c=ts&keywords=MP3+%26+Digital+Audio+Players&qid=1676544952&s=network-media&sr=1-3&ts_id=573372. Accessed 16.02.23

Bianchi, Daniel, "Listen (escucha) Murray Schafer", *YouTube*, (03.11.15). See: https://www.youtube.com/watch?v=5q1rpNNnCUc&t=180s. Accessed 24.01.23

Blanchflower, Melissa, "Elizabeth Price, THE WOOLWORTHS CHOIR OF 1979, 2012" *Tate*, (published in January 2013). See: https://www.tate.org.uk/art/artworks/price-the-woolworths-choir-of-1979-t14214. Accessed on 14.01.23

Cabán, Rosana, “We Need to Move Toward Conceptual and Accessible Sound Art”, *Hyperallergic,* (published on 14.12.21), See: https://hyperallergic.com/699629/we-need-to-move-toward-conceptual-accessible-sound-art/. Accessed 22.09.22

Castro, Joseph, “What Is White Noise?”, *Livescience,* (29.07.13). See: https://www.livescience.com/38387-what-is-white-noise.html. Accessed 17.01.23

Coromo Sara. ASMR, “ASMR for Those Who Want to Sleep Soundly Now / 3Hr (No Talking)”, *YouTube,* (Uploaded on 2.12.21). See: https://www.youtube.com/watch?v=-SYwOAe6V_4&t=567s. accessed 11.01.23

Department of Physics & Astronomy Acoustics Research Group “What is Acoustics” https://acoustics.byu.edu/what-is accessed 11/01/23

Emptyset, “About”, *emptyset,* (no date specified). See: https://emptyset.org.uk/projects/about. Accessed 24.01.23

Emptyset, “Emptyset”, *Spotify,* (no date specified). See: https://open.spotify.com/artist/6iVzn7VOmHkhFAnB8XAGZ4. Accessed 24.01.23

Emptyset, “Projects”, *emptyset,* (no date specified). See: https://emptyset.org.uk/projects/Signal. Accessed 24.01.23

Emptyset, “Releases”, *emptyset,* (no date specified). See: https://emptyset.org.uk/releases accessed 24.01.23

Francis, Mark, “Biography”, *Mark Francis,* (no date specified). See: https://www.markfrancisstudio.com/biography/. Accessed 16.01.23

Francis, Mark, title not stated, date not stated. See: https://www.markfrancisstudio.com/ accessed: 22.09.22

Gerry, Lisa M. “What Is ASMR?”, *Verywellmind,* (Updated on 13.08.22). See: https://www.verywellmind.com/what-is-asmr-4582673. Accessed 13.01.23.

Greenan, Aoibheann , “Dingbox”, *Aoibheann Greenan,* (Published in December 2020). See: https://www.aoibheanngreenan.com/dingbox. Accessed 04.11.22

The Guardian, “Elizabeth Price's Turner prize-winning The Woolworths Choir of 1979 - video excerpt”, *The Guardian”,* (published on 04.12.12). See: https://www.theguardian.com/artanddesign/video/2012/dec/04/elizabeth-price-woolworths-choir-video. Accessed 14.01.23

Hoffman, Charles, “Mono vs. Stereo Sound: The Difference Explained (With Audio Examples)”, *Black Ghost Audio,* (09.05.22). See: https://www.blackghostaudio.com/blog/mono-vs-stereo-sound-the-difference-explained-with-audio-examples. Accessed 24.01.23

Hyperallergic, “About Us”, *Hyperallergic*, date not stated, See: https://hyperallergic.com/about/, accessed 30.09.22

ITV London, “The Woolworths Choir of 1979” *Vimeo,* (uploaded on 04.12.12). See: https://vimeo.com/54843533. Accessed on 14.01.23

Manchester, Elizabeth, “Gary Hume, Cerith, 1998” *Tate,* (Published 2002). See: https://www.tate.org.uk/art/artworks/hume-cerith-p78688. Accessed 19.01.23

McGoff, Jessica, “introductory text by Jessica McGoff”, *Aemi,* (date not stated). See: https://aemi.ie/works/aoibheann-greenan-dingbox-2020/ accessed on 04.11.22

Medienkunstnetz, “Intonarumori”, *Medienkunstnetz,* (date not stated). See: http://www.medienkunstnetz.de/works/intonarumori/audio/2/. Accessed 14.02.23

Minard, Robin, “Curriculum Vitae” *Robin Minard*, date not stated. See: https://robinminard.com/curriculum-vitae/ accessed: 20.01.23

Minard, Robin, “Home”, *Robin Minard,* (No date stated). See: https://robinminard.com https://robinminard.com/video-documentations/ Accessed 25.01.23

Minard, Robin, “On and Between”, *Robin Minard*,(2017). See: https://robinminard.com/portfolio/on-and-between/. Accessed 25.01.23

Morriss-Kay, Gillian M, “The evolution of human artistic creativity”, *National Library of Medicine,* (published 06.11.09), See: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2815939/. Accessed 19.01.23

The National Gallery, “The Arnolfini Portrait”, *The National Gallery”,* (Date not stated). See: https://www.nationalgallery.org.uk/paintings/jan-van-eyck-the-arnolfini-portrait. Accessed 13.02.23

Philharmonie, “«On and Between» Sound Installation by Robin Minard | rainy days 2017” *YouTube,* (15.11.17). See: https://www.youtube.com/watch?v=wcoyAgqErD4. Accessed 25.01.23

Statista Research Department, “Number of monthly visits to the National Gallery in London, England from March 2018 to September 2022” *Statista*, (published 06.01.23). See: https://www.statista.com/statistics/508126/national-gallery-monthly-visits-england-uk/. Accessed 13.02.23

Subtext Recordings, “Guardian - Emptyset - Signal - Stream (SUB015)”, *Soundcloud,* (uploaded in 2016). See: https://soundcloud.com/subtext-recordings/sets/guardian-emptyset-signal. Accessed 24.01.23

Trident Audio Developments, “Trident 68 Console”, *Trident Audio Developments,* (date not stated). See: https://tridentaudiodevelopments.com/product/trident-68-console/. Accessed 16.02.23

Tate, “Sound art”, *Tate,* (date not specified). See: https://www.tate.org.uk/art/art-terms/s/sound-art. Accessed 20.01.23

Tate, “Turner Prize 2012 artists: Elizabeth Price”, *Tate,* (no date specified). See: https://www.tate.org.uk/whats-on/tate-britain/turner-prize-2012/turner-prize-2012-artists-elizabeth-price accessed on 14.01.23

Tate, “WHAT IS THE TURNER PRIZE?”, *Tate*, (no date specified). See: https://www.tate.org.uk/art/turner-prize. Accessed 14.01.23.

Voegelin, Salomé, “Salomé Voegelin”, *Salomé Voegelin,* (date not stated), See: https://www.salomevoegelin.net/. Accessed 11.11.22