music branding basics

the power of holistic corporate music branding

Published
April 2022

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Preface

Why should we talk about music branding now?

The world we live in submerges us in an extensive and extenuating collection of communicative stimuli, let it be visual, auditory, olfactory or multi-sensorial. We are quite literally bombarded by multimedia stimuli in our daily lives: at work, when hanging out with friends, while grocery shopping, on public transportation, while we are driving; the list could go on indefinitely. Through the history of advertising, marketers and publicists have focused their attention on very specific touchpoints: print (including copywriting and images), radio (including music, voice and messages), television (including motion pictures, images, music, voice, messages, VFX), digital (including all of the above and digital interaction and engagement). At this stage, sensory overload in advertisements is very common in our day to day life, thus grabbing the attention of our potential target user has become even more difficult. (Rhodes et al., 2022)

The more time passes by, the more we are accustomed to these frequent and incredibly powerful stimuli. This phenomenon makes us immune to any further sensory overload, since we are already over-stimulated. By using sound and melodies that accompany and enrich brands and their identity on the market, marketers hope to regain part of that attention they have lost from us and hope to engage and keep us engaged for a longer period of time.

On top of this, it has been proved that auditory cues are incredibly more powerful than visual brand cues, based on market research. The world of brands is changing and music branding is one of the big shifts it is making right now. This is why we need to talk about music branding now.

Index

Introduction

Sound has become an increasingly significant part of a company's branding strategy. Audio can elicit emotions and thoughts that visual materials cannot. Developing a sonic strategy for firms is a commercial need that can't be overlooked as we ride the wave of the podcasting revolution. Audio has become an essential aspect for all businesses, regardless of size. In a crowded market, making sure that companies' messages are heard has become a challenge.

Pandora's report, Ogilvy Consulting, is quoted: "For the first time, marketers will have no choice but to consider the audio characteristics of their brands." (Howell, 2021)

Laurence Minsky, an associate professor at the School of Media Arts at Columbia College Chicago and co-author of Audio Branding, explains how crucial an audio component to branding is today: "Developing an audio brand is urgent because the web has become searchable (without visuals) through the use of voice agents, which are increasing exponentially" he says. "Research indicates that multi-sensory brands are stronger than simply visual brands. It's because the more you engage the senses, the more ways the brand will resonate with their prospects and customers." (Howell, 2021)

Audio branding, sonic branding and, in this paper, music branding are all terminologies referring to the specific brand assets developed specifically for a company, in scope and aligned with their identity, with the objective of fostering brand engagement and recall in their communication at an auditory level.

The knowledge and process of music branding has grown dramatically since the mid 2010s and it has increasingly become part of a holistic system. Nowadays, music branding is starting to be treated as a real brand asset and not just a jingle that you listen to on the radio. This is because scientific evidence has proven the effectiveness of audio in the realm of brands and advertising.

The objective of this work is to give the reader an overview of the power that holistic corporate music branding has on how the brand is perceived, recalled and treated by the consumer. Another objective of the thesis would be to inform and share knowledge with communication designers on the practice of

music branding in order for them to be ready to understand and design with audio in mind when facing digital design challenges and projects.

Thanks to academic research, interviews with key opinion leaders in the music branding sector, mentorship from the Politecnico di Milano faculty and online resources, the reader will find an overview package of information about the practice that is useful to get acquainted with the world of audio and its wonderful, powerful and emotional possibilities.

1. Music and Emotions

Introduction

The first chapter of this work aims to provide the reader with the indispensable tools for understanding the anatomy of sound, its terminology, some key theoretical audio principles, music perception and semantics. The ideas explored in the following paragraphs will introduce the reader to the world of sound and music, thus enabling easier comprehension of articulated music branding concepts explored in further paragraphs of this dissertation. References to branding and music branding in this chapter are deliberately scarce, since the idea is for the reader to focus on the basic principles and notions surrounding sound, music, music psychology and music theory. Once this content is appropriately delivered and digested, it will be advantageous to focus on the declination of the following concept in branding and, more specifically, music branding.

1.1 Why are humans so connected to music?

Keywords: art of expression; psychological reactions; cognitive capacities; mnemonic cues.

The journey towards the discovery of music branding, its fascinating history, current applications, efficacy, distinctive traits and future developments starts from a pool of different questions: Why are we, as human beings, so drawn to music? What makes music so special so that our brain can trigger specific reactions when hearing targeted wave-lenghts coming through our ears? What is the connection between music and all of the different languages spoken around the world?

The following paragraphs will help the reader deep dive into these somewhat existential questions, hoping to prompt a more in-depth reflection on the role that music plays in our everyday lives.

According to musicologists and anthropologists, music and dance are enjoyed and responded to by all human cultures and social groups on the planet. Music appears to be a "unique biological aptitude" (Harvey, 2017) and we humans are drawn to it from an early age.

In Nat Shapiro's Encyclopedia of Quotations about Music

(Shapiro, 2012), many great and knowledgeable people have expressed their thoughts on music and have been inspired by it.

> *Music is the art of the prophets, the only art that can calm the agitations of the soul; it is one of the most magnificent and delightful presents God has given us.*

Confucius said that “music produces a kind of pleasure which human nature cannot do without”, while Aristotle questioned: “why do rhythms and melodies which are mere sounds resemble dispositions, while tastes do not, nor yet colors or smells?”. Another idea about music is from Martin Luther, stating: “music is the art of the prophets, the only art that can calm the agitations of the soul; it is one of the most magnificent and delightful presents God has given us”. So many of the greatest minds have spoken about music and its ability to calm, inspire, excite, emotion, uplift, sadden, renew the spirit of men. After all, there is something intrinsically poetic and artistic about music itself, so much so that the Oxford English Dictionary describes music as “one of the fine arts which is concerned with the combination of sounds with a view to the beauty of form and the expression of emotions.” (Harvey, 2017, 2)

In 1967 Harry Olson's Music, physics and engineering, the author gives the following definition of the term: “music is the art of producing pleasing, expressive, or intelligible combinations of tones. The sounds of original music are produced by the human voice or instruments actuated by musicians. The ultimate objective destination of all music is the human hearing mechanism.” (Olson & Olson, 1967, 1)

Christopher J. Plack, in his revised version of The Sense of Hearing, introduces his collage of definitions of music:

> *We might think that we have a pretty good idea of what music is; we generally know it when we hear it. However,*

↗ [Fig. 1] Man playing the piano in the street of the Paris Flea Market, Paris, France.

> *music is actually quite difficult to define. In his famous dictionary, Samuel Johnson defined "musick" as "the science of harmony" or "instrumental or vocal harmony", a definition that assumes music is a consequence of sound production by tonal instruments such as the violin. However, recent composers have transformed our ideas regarding the sorts of sounds that can be regarded as musical. This could include anything from a melody played by a flute to the combined sound of a waterfall and a train. The online resource dictionary.com defines music as "an art of sound in time that expresses ideas and emotions in significant forms through the elements of rhythm, melody, harmony, and color". (Plack, 2018, 236)*

It is quite fascinating to note that, for the most prominent scientists and linguists, music is the first of all a form of art that finds its expression in a physical and emotional phenomenon through sound. But first and foremost, the mystery and awe that surrounds the concept of music is what our dictionaries and physics books focus on when defining music.
Moreover, music is a universal form of communication that clearly differs from language and speech. It has the ability to impact arousal, stimulate brain activity, activate our emotions, and elicit significant internal autonomic physiological re-

sponses in people. (Critchley & Henson, 2014) The autonomic nervous system is in charge of monitoring and controlling our body's interior environment, as well as its visceral processes. Control of heart rate and blood pressure, digestion, respiration, and the sexual arousal apparatus are all examples of autonomic function.

Music seems to have a “gold pass” access to the autonomic network. When listening to favorite pieces of music, several physiological changes connected to emotional responses are induced, including changes in heart rate and blood pressure, goosebumps, shivers, and tears. (Sloboda, 1991, 110-120)

> *It is quite fascinating to note that, for the most prominent scientists and linguists, music is the first of all a form of art that finds its expression in a physical and emotional phenomenon through sound. But first and foremost, the mystery and awe that surrounds the concept of music is what our dictionaries and physics books focus on when defining music.*

These are just some of the evidence of our innate involvement with music from a biological and even psychological point of view. Thus, it is no surprise that music touches the majority of the areas of our everyday lives. Music is embedded in our daily routines.

Everybody has a musical connotation to their day and even the less “musical prone person” in the room, at some point, will encounter some form of music.

We can strongly assume that it has been so for many years in our civilization's history. Most cultures and ancient civilizations had (or have) gods dedicated to music, and many of us

take part in group musical activities, such as singing the national song at a soccer game, the club anthem, singing hymns in church, or responding to music at a wedding or a funeral. (Harvey, 2017, 4)

↗ [Fig. 2] Women playing the Cello.

But if we go back to our own experience in school and educational contexts, we can deep dive into the role that music plays in our own brains. Many of us have had the demanding and repetitive task of learning a poem or a piece of narrative by heart at school. As of personal experience, the effectiveness of repetition and recital of the poem itself decays with time if the poem is not practiced through the years.

When repeating the same poem years after we had learned it, we have the distinct feeling that the memory of that specific text is coming back. This is most likely because we are traversing neural pathways we already traveled when we were little, thus unlocking the ability to remember.

On the other hand, it is much easier to recall a poem or a series of words tied to music. Researchers in the field of education have discovered that music helps students learn and remember by structuring time and providing mnemonic frameworks. Somehow, putting words to music makes them easier

to recall, which is crucial as we get older. Music's advantages extend well beyond the realm of entertainment. Music education improves language capabilities, general cognitive and perceptual capacities. (“A Little Goes a Long Way: How the Adult Brain Is Shaped by Musical Training in Childhood” 2012, 11507-11510) This is why many of us can remember the lyrics of songs, but may not remember much, if any, prose.

Recent history can provide formidable examples of the power that music can exercise on humanity. In 1914, the Germans and allies in their respective trenches sang Christmas carols to each other across no man's land, thus beginning the famous Christmas truce of that year. In more modern times, because “music-making is a safe place for people to ‘be' together and rebuild trust” various music-based initiatives have been developed in regions of conflict and extreme social disharmony, such as in the Balkans and in Africa. (Harvey, 2017, 5)

↓ [Fig. 3] German and British troops celebrating Christmas together during a temporary cessation of WWI hostilities known as the Christmas Truce.

As humans, we internalize sound very quickly and are very sensitive to what we hear because of the history of evolution and the way our bodies are made. Normally, back in the evolutionary era, hearing was used to detect if something was approaching and if we were in imminent danger. (Simonelli,

2018) This is one of the other reasons why sound has a direct relationship with the autonomic neural system and can alter our cardiovascular state or give us shivers and goosebumps: primitively to put us on guard.

Acoustic memory is embedded in ourselves since before we even see the light of day. Hearing is the first of the five senses to develop when the fetus is inside the womb. From the beginning, the baby associates the rhythmic heartbeat of the heart with a sense of tranquility. Arguments can be made that from the first sounds of animal skin drums to the symphonies of Mozart, there is an incredible resemblance to the rhythmic human heartbeat. To the point that the metronome standard oscillation is at 70-80 bpm, the same as our heart rate at rest. It is also true that up until the late Middle Ages, musicians adjusted the rhythm of the music they were about to play by listening to their pulse.

In modern times, music is found in a variety of different applications. Several studies have demonstrated that music can and is used for therapeutic purposes. It can soothe aggressiveness, help recover from a traumatic event or help with certain kinds of diseases such as autism, Alzheimer's, depression/anxiety and developmental delays. (Sukhani et al., 2022)

Arguments can be made that from the first sounds of animal skin drums to the symphonies of Mozart, there is an incredible resemblance to the rhythmic human heartbeat. To the point that the metronome standard oscillation is at 70-80 bpm, the same as our heart rate at rest.

As already mentioned, our bodies react in very different ways to what we hear. The voluntary action of frightening people through sound, thanks to high energy transitions using music, increases the level of adrenaline in our bodies. When this practice is put to use in a safe environment (e.g. in an

action movie) the emotional impact is potent. Nonetheless, if the volume is too high, we might put our health in danger because of what is now known as acoustic stress. (Miranda & Roux, 2017, 2) This health hazard is often associated with cardiovascular diseases, depression, and other diseases. Sound, and especially music, can also be used as a form of torture. Metallica music and Sesame Street music have been repeatedly used by the US military to torture Iraqui prisioners at Guantanamo Bay. (Miranda & Roux, 2017, 2).

Although it is my duty to warn of the dangers that music can cause to human beings, I want to reassure the reader that this work is not going to focus on the negative connotations of music, but most importantly on the benefits that designers and people from around the world can draw from music and from music branding in particular.

Despite all of the writing and theorizing, and centuries of scholarly endeavor, most are in agreement that music has a strange and wonderful power over our species, even though there remains a lack of consensus as to why humans have responded so positively to music throughout their history. Many questions remain unanswered. Is there a bigger picture of music?

Did music precede language or was there a common progenitor that split into two distinct but yet overlapping strands as Homo sapiens evolved, retaining both modes of communication? What was the necessity for the two communication systems? Why are we the only species in the world who can speak, sing, and dance?

↓ [Fig. 4] Sesame Street is an American educational children's television series that combines live-action, sketch comedy, animation and puppetry.

1.2 Introduction to Sound & Psychoacoustics

Keywords: air displacement; auditory system; sound perception; acoustic threshold; dynamic range of hearing; auditory masking; loudness of sound.

↗ [Fig. 5] Ear on a cardboard cut-out.

The journey towards Music Branding has just started. The reader will also need to acquire technical knowledge of the matter of sound and its related psychological effects to fully grasp the complexity of the world in which we are about to immerse ourselves. In order to better understand music and how it affects human beings, an in-depth focus on the physics behind sound and its measurable physical properties is now proposed.

Let us begin with both the most basic and, at the same time, complex questions regarding the anatomy of music: What is sound? What is it made of? What physical properties are attached to it?

In order to answer these questions, let's consider the following introduction to sound by John Pierce in Music, Cognition and Computerized Sound.

We're immersed in a sea of air. Snapping fingers, speaking, singing, plucking a string, or blowing a horn causes a vibration in the air near the source of sound. As a spherical wavefront, a sound wave moves outward from the source. It's a longitudinal wave in which the air pulsates in the same direction that the wave moves. Waves on a stretched string, on the other hand, are transverse waves because the string's motion is perpendicular to the wave's travel direction. (Cook & MIT Press, 1999, 37)

> *We're immersed in a sea of air. Snapping fingers, speaking, singing, plucking a string, or blowing a horn causes a vibration in the air near the source of sound. As a spherical wavefront, a sound wave moves outward from the source. It's a longitudinal wave in which the air pulsates in the same direction that the wave moves.*

Another two definitions of the term can be found in 1967 Harry Olson's Music, physics and engineering:

> *"Sound is an alternation in pressure, particle displacement, or particle velocity that is propagated in an elastic medium. [...] Sound is also the auditory sensation produced through the ear by the alterations described above." (Olson & Olson, 1967, 3)*

In this ocean of air, sound waves pass by, causing components of our ears to vibrate in the same way as the sound source. Reflections from the ground and other things confound what really reaches our ears. Much of the sound we hear in a room is reflected off the floor, walls, and ceiling before reaching our ears. Also, what we hear weakens with distance from the source and the strength of the source

wave is dispersed in the environment.

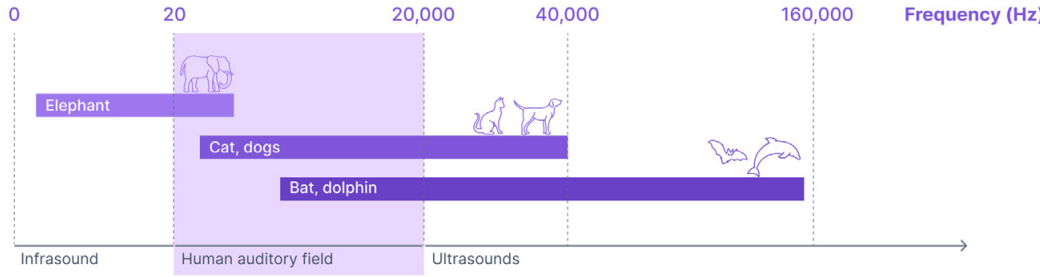
Waves are emitted by physical vibrant objects, such as a violin when a string is plucked or a bell when it is rung. Whenever this happens, waves begin to travel, but they cannot be called sounds yet. These waves trigger a vibration in the eardrum (or tympanum) and the brain perceives sound. The perception of sound includes, but it is not limited to the ear as an organ. We can actually hear low-frequency sounds (from 1Hz to 20Hz) in various regions of the body.

Furthermore, we can perceive visual manifestations of sound too. At very high intensity, sound can move or even destroy objects such as windows. Not only this, but also we can "see" sound if we think of how speakers move when they are playing music, and we can also "feel" sound with our own body if we are very close to a subwoofer speaker in a club.
In this case, if the music is loud enough, we can perceive how air is moving and impacting our bodies.

↘ [Fig. 6] Bluetooth speaker playing music with bass and displacing water above it.

Now a question comes very spontaneously: can we hear all the sounds? What is the actual human auditory range?

> *"The human auditory field corresponds to a specific band of frequencies and a specific range of intensities, perceived by our ears. Acoustic vibrations outside of this field are not considered as "sounds", even if they can be perceived by other animals." (Pujol, 2018)*



↖ [Fig. 7] Frequencies perceived by man and some common mammals. The section higlighted represents the human auditory field.

Frequencies between 20 Hz (lowest pitch) and 20 kHz are perceived by the human ear (highest pitch). Although certain species (such as the mole-rat and elephant) can detect infrasounds, all sounds below 20 Hz are classified as infrasounds. Similarly, all noises over 20 kHz are ultrasounds. However these are sounds for a cat or a dog (up to 40 kHz), as well as a dolphin or a bat (respectively up to 40 kHz and 160 kHz).

Sound is perceived differently by every human being. And sound can be modified or recognized differently based on several different factors that contribute to its modification.

The field of study that takes care of physical measurable properties of sound waves, with their amplitude and frequency, and that takes in consideration also subjective phenomena such as volume and tone, is called Psychoacoustics. The study of Psychoacoustics varies widely from technical and physical demonstration of sound to human, emotional and cultural aspects of sound. Here's the definition from *The Sense of Hearing* by J. Plack:

> *Auditory psychophysics, or psychoacoustics, is the psychological or behavioral study of hearing – behavioral in that the participant is required to make a response to the sounds that are presented. As the name suggests, the aim of psychoacoustic research is to determine the relation between the physical stimuli (sounds) and the sensations produced in the listener. That we measure the behavioral responses of listeners is essentially why psychoacoustics is regarded as a branch of psychology,*

> *although many of the problems addressed by psychoacousticians have little to do with the popular conception of psychology.*

It is possible that the term “psychoacoustics” was first coined by T. W. Forbes when he described the research his team was conducting in the United States during World War II. A secret government project was set up to investigate, in part, the potential of acoustic weapons. To the disappointment of warmongers everywhere, the team was unable to produce anything close to an acoustic death beam, although it did develop a sound system for broadcasting propaganda from aircraft. (Plack, 2018, 288)

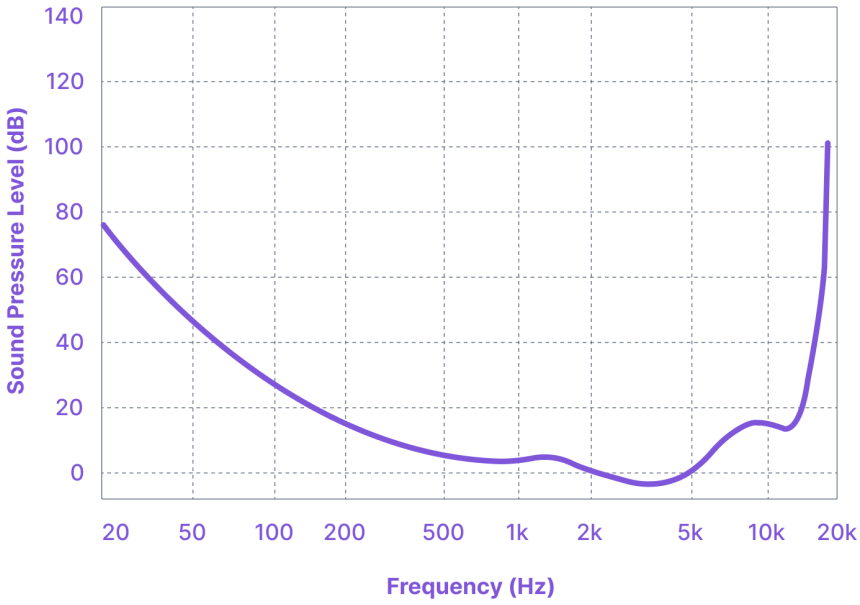
Psychoacoustics links our world of acoustics to how we perceive sound. It comes from the words Psychology and Acoustics. The aim of this field of research is to describe how we perceive sound using mathematical functions and models. The goal would be to define models that describe how we perceive sounds. This practice links the acoustics of sound (physics) to how we perceive it (psychophysics).

Psychoacoustics spans over very different areas of interest. Here's a list with some explanations of the basics of psychoacoustics.

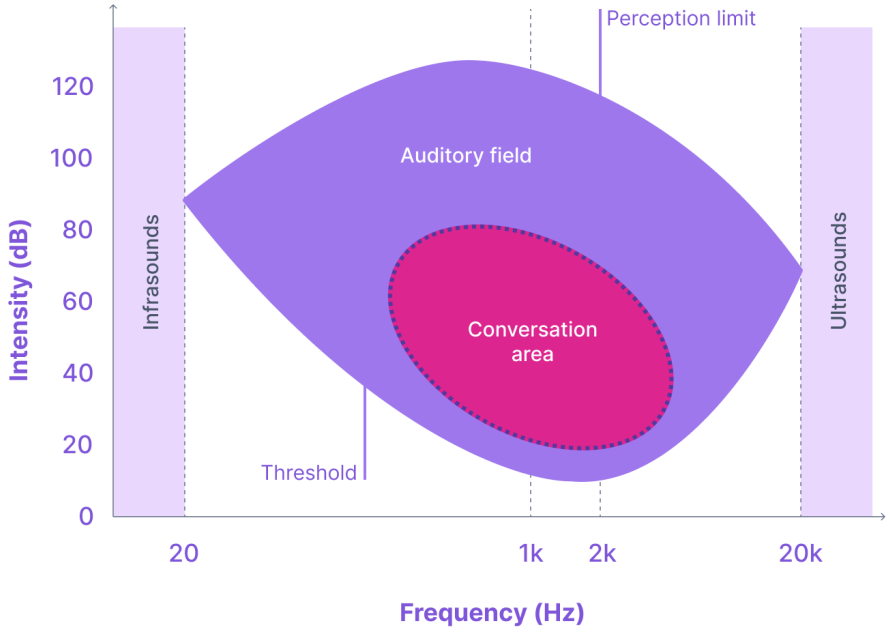
The threshold of hearing

The hearing threshold is the absolute lower limit of the auditory system. It indicates which sounds are so faint we can barely hear them. [Fig. 8]

Our sensitivity threshold varies at different frequencies between 20 Hz and 20 kHz. The optimal threshold is close to 0 dB (at roughly 2 kHz). It is also in this middle range of frequencies that the sensation dynamics is the best (120 dB). The conversation area (dark purple) demonstrates the range of sounds most commonly used in human voice perception; when hearing loss affects this area, communication is altered. [Fig. 9]



↖ [Fig. 8] The hearing spectum on a graph with Frequency and Sound Pressure Level.



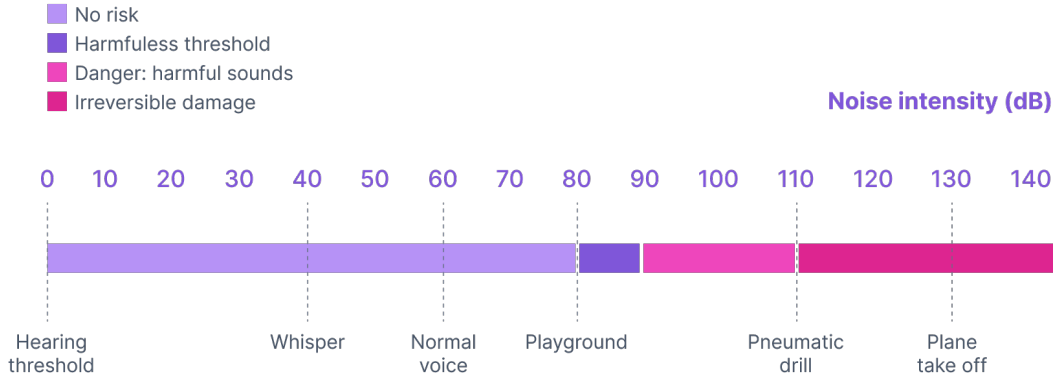
↖ [Fig. 9] A graph representing human auditory field and conversation area in terms of Intensity and Frequency.

Dynamic Range of sound

The dynamic range of the human ear is 0dB (threshold) to 120-130 dB.

This is especially true in the mid-frequency band (1-2 kHz). The dynamic is narrowed at lower and higher frequencies. However, as illustrated in the image, all sounds above 90 decibels cause damage to the inner ear, with 120 decibels causing irreversible damage.

↘ [Fig. 10] Risk scale of damage to the auditory system by intesity levels.



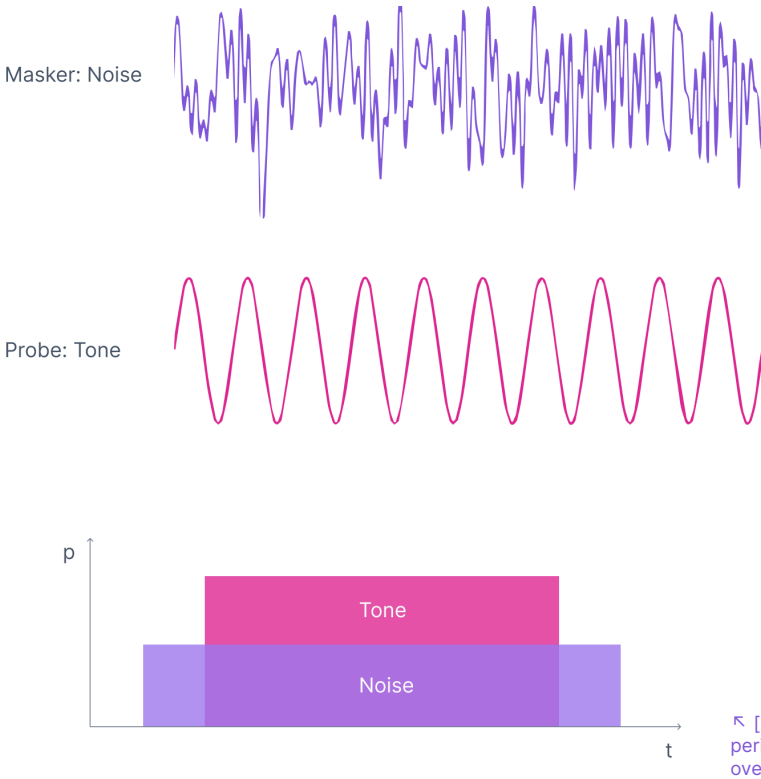
Auditory masking

The Sense of Hearing proposes a very straightforward definition of auditory masking:

> *Masking occurs whenever the activity produced on the basilar membrane by one sound (the masker) obscures the activity produced by the sound you are trying to hear (the signal). If the masker and the signal are far apart in frequency, then the masker will have to be much more intense than the signal to mask it. If the masker and the signal are close together in frequency, then the masker may have to be only a few decibels more intense than the signal to mask it. (Plack, 2018, 100)*

Auditory masking refers to “hearing out” one frequency component in the presence of other frequency components. It is fairly simple to assess when we are able to hear a certain sound in total silence. Nevertheless, when other sounds come into play, it becomes more difficult. These sounds are called “masking sounds”. In the masking experiment a white noise sound and a tone sound are mixed together and a

person is asked to detect whether or not they can hear the tone when the two sounds are played together. This is useful in order to know what the auditory masking threshold of this particular experiment.



↖ [Fig. 11] The auditory masking experiment: visual representation of the overlap between tone and noise.

Critical bands

Any signal, tone, noise or sound coming into our auditory system is filtered. The auditory system looks at the output of the filter in order to detect the energy that comes out of it and determine whether or not a sound is heard. This is especially useful in order to establish when a masking sound has the potential to overcome a tone when the bandwidth of both is increased.

Loudness of sound

Loudness can be defined as the perceptual quantity most related to sound intensity. We use words like “quiet” and “loud” to refer to sounds that we hear in our daily lives (e.g. turning down the TV, it's too loud). Strictly speaking, however,

loudness refers to the subjective magnitude of a sound, as opposed to terms such as pressure, intensity, power, or level, which refer to the physical magnitude of a sound. If I turn up the amplifier so that the intensity of a sound is increased, you perceive this as a change in loudness. It is not accurate to say, "This sound has a loudness of 50 dB SPL (Sound Pressure Level)." Decibels are units of physical magnitude, not subjective magnitude. (Plack, 2018, 112)

Therefore, loudness strictly refers to the physical magnitude of sound and it is defined as the attribute of auditory sensation in terms of which sounds can be ordered on a scale extending from quiet to loud.

Binaural masking

Binaural masking refers to the brain combining information from two ears in order to improve signal detection and identification of noise.

When we have the same signal and the same noise coming into both ears [Fig. 12] we will most likely hear the tone at a certain threshold. But if we introduce a phase-shifted tone on one of the ears [Fig. 13] the situation changes dramatically. The threshold of hearing a specific sound in the midst of noise increases by 15dB. [Fig. 14] The sound is perceived better, with more distinction than before.

↘ [Fig. 12] Same noise and same signal represented visually.

↓ [Fig. 13] Same noise and phase-shifter signal represented visually.

↙ [Fig. 14] 15dB increase in the hearing threshold for a specific sound represented in a graph.

Although this is a brief and condensed summary of the principles and basics of sound and Psychoacoustics, the knowledge gained in this paragraph allows us to move forward in the journey of discovery of music branding, conscious that the basic principles will become useful when entering "vertical" conversations about music branding or sound in general.

1.3 Music Terminology: a basic glossary

Keywords: Frequency; Amplitude; Melody; Harmony; Tempo; Rhythm; Timbre; Dynamics; Texture.

Whenever approaching a new topic, it is usually best to get acquainted with the terminology that comes with it. A very simple but effective example of this would be when starting a job at a new firm. In order to get accustomed to the internal terminology, the industry vocabulary, the inside jokes and the slang terminology of the people, you need to immerse yourself into the environment, live with them and learn from them. We are going to try to immerse ourselves fully into the sound and music terminology in order to be ready to read and listen to music branding conversations later on in this work.

Please feel free to use this chapter as a glossary and head back here whenever you feel like there is a term that you are not familiar with.

Let's dive into the definition of some of the terminologies that concern sound:

Frequency or pitch

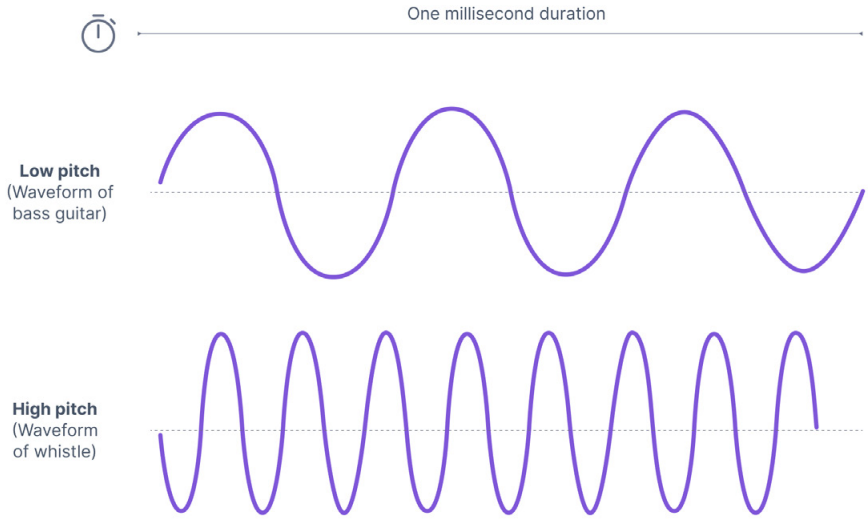
Frequency is the measurement of the number of times a repeated event occurs per unit of time. The frequency of wave-like patterns, including sound, electromagnetic waves (such as radio or light), electrical signals, or other waves, expresses the number of cycles of the repetitive waveform per second. In SI units, the result is measured in Hertz (Hz), 1 Hz means one cycle (or wave) per second. Frequency has an inverse relationship to the concept of wavelength (the distance between two peaks) such that the frequency is equal to the velocity divided by the wavelength. (Glossary: Frequency (in the Context of Sound)

The frequency, or pitch, of sound is the aspect that we can hear best. When a vocalist strikes a very high note at the conclusion of a song, we are in awe. We also have a physical response to very low notes (low pitches), which can represent dark or sad sentiments, for example in some melancholic country songs, or the rhythmic propulsion of low-frequency pulsations in artificially enhanced dance music.

The ability to distinguish pitch varies from person to person, just as different people are better and less capable at distinguishing different colors (light frequency). Those who are especially gifted at recognizing specific pitches are said to have “perfect pitch.” On the other hand, just as there are those who have difficulty seeing the difference in colors that are near each other in the light spectrum (color-blind), there are people who have trouble identifying pitches that are close to each other. (Cohen, 2020)

When musicians talk about being "in tune" or "out of tune", they're referring to pitch, and more precisely, the relationship between two pitches. The more harmonious the mathematical connection between the two pitches is, the easier it is to hear if the notes are in tune.

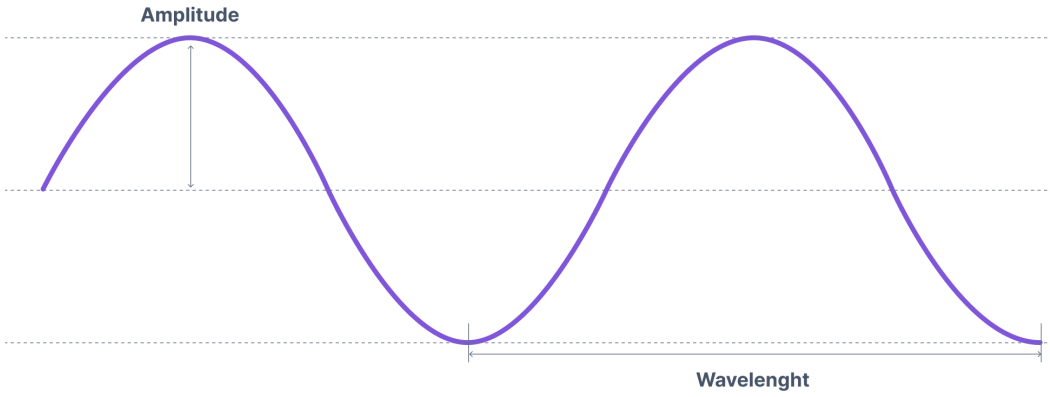
↙ [Fig. 15] Visual representation of high pitcha and low pitch.



Amplitude

Amplitude is the amount of energy contained in the sound wave and is perceived as being either loud or soft. Amplitude is measured in decibels (dB), but our perception of loud and soft changes depending on the sounds around us. Walking down a busy street at noon where the noise in the environment might average 50 decibels, we would find it difficult to hear the voice of a person next to us speaking at 40 decibels. On that same street at night, that 40 decibel speaking voice will seem like a shout when the surrounding noise is only about 30 decibels. (Cohen, 2020)

↙ [Fig. 16] Wave amplitude and wavelenght.



Wave form

The waveform of a sound determines the tone, color, or timbre that we hear and is how we can tell the difference between the sound produced by a voice, a guitar, and a saxophone even if they are playing the same frequency at the same amplitude. (Cohen, 2020)

The sine wave is the most basic waveform. Pure sine waves are uncommon in nature, but they are simple to produce using electrical methods. For example, the flute has a tone that is quite similar to that of a sine wave.

Duration

Every sound event has its unique duration, which we perceive as being either short or long, depending on the context. Several durations, one after another, create the rhythm of a piece.

These four terms contain the basic terminology for understanding the physics behind the soundwave.

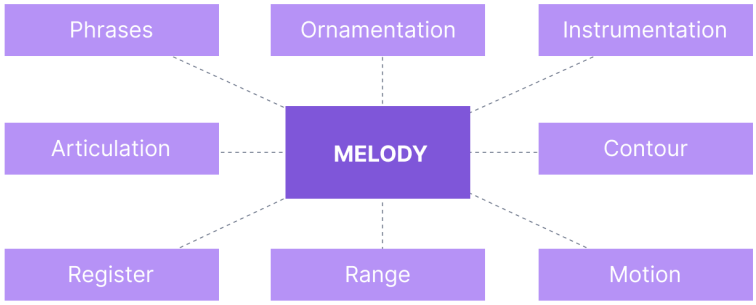
Let's now take into consideration the most common terminology found in the music environment:

Melody

In order to define a melody, we must properly describe what a musical note is.

A musical note can be defined as a sound that evokes a pitch (e.g., a complex tone with a specific fundamental frequency) or, alternatively, as a symbolic representation of such a sound (e.g., the note "A" or a symbol used in standard musical notation). (Plack, 2018, 237)

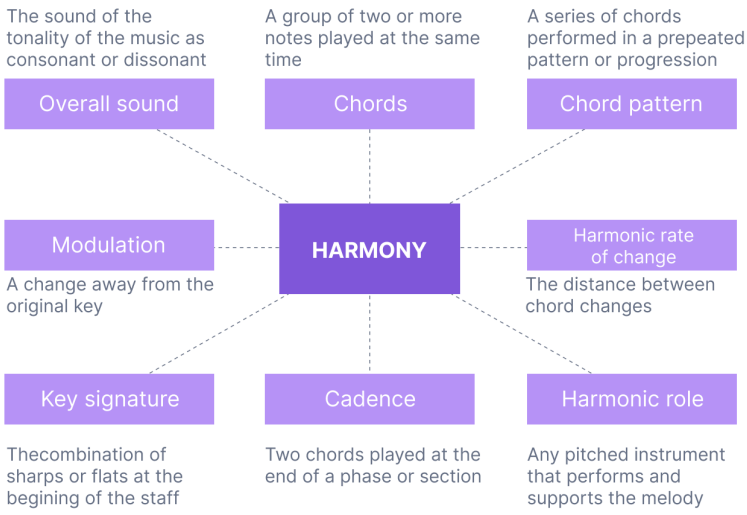
Accordingly, a melody is a sequence of musical notes, a sequence of fundamental frequencies. To perform a melody, you'll need an instrument that can generate periodic sound waves over a wide range of fundamental frequencies, such as a guitar's strings. The relative fundamental frequencies of the notes, rather than their absolute frequencies, are more significant for the perception of melody and harmony.



↙ [Fig. 17] Core elements that make up a meldoy in music.

Harmony

Harmony refers to the combination of notes to produce chords. A chord is a simultaneous combination of two or more notes. Chords with two notes are called dyads, chords with three notes are called triads, chords with four notes are called tetrads, and so on. The study of harmony is concerned with the principles underlying the perceptual effects of combining notes in chords. In a sense, melody and harmony represent two different directions in music, with reference to standard musical notation. Melody is concerned with the horizontal sequence of notes over time, whereas harmony is concerned with the vertical sequence of notes at a single time. (Plack, 2018, 244)



↙ [Fig. 18] Core elements that make up a harmony in music.

A harmony can be consonant or dissonant depending on different combinations of musical notes played together. When a harmony is consonant it will be received as pleasant or resolved, whereas if a harmony is dissonant it will sound unpleasant and unresolved.

↘ [Fig. 19] Definition of different tempos in music theory.

Tempo marking	Definition
Prestissimo	Very very fast (<200bpm)
Presto	Very fast (168-200bpm)
Allegro	Fast (120-168bpm)
Moderato	Moderately(108-120bpm)
Andante	Walking pace(76-108bpm)
Adagio	Slow and stately(66-76bpm)
Lento/Largo	Very slow(40-60bpm)
Grave	Slow and solemn(20-40bpm)

Tempo

A beat in music can be thought of as the ticking of a clock (or metronome) in a musical piece, the basic unit of stress in time. It is not required to have a note or other musical event at each beat, and there may well be several events between two beats, but there is a sense that the time of each beat has a perceptual emphasis. The tempo of a musical piece is the rate at which beats occur and is usually measured in beats per minute (bpm). The tempo is also the rate at which we tend to tap our feet, or clap our hands, to the music. (Plack, 2018, 248)

The tempo is also described as “the pattern of movement in time” by the Harvard Dictionary of Music. (Apel, 1969, 836) The range of tempi we can perceive musically is limited to around 60 to 300 beats per minute. The events are heard separately at tempi below roughly 60 bpm, and the feeling of a fused temporal pattern is gone. When the pace exceeds 300 bpm, the perception of coherence is gone, and the brain tends to organize the pattern of notes into a half-speed beat.

> *"Interestingly, individual listeners each have a preferred tempo.When asked to tap at a comfortable rate, people tend to tap at about 100 bpm, but this varies a little between individuals:The preferred tempo for an individual seems to be related to the rate at which they walk." (Plack, 2018, 248)*

Rhythm

The word rhythm specifically refers to how pitches in music are organized (compressed or elongated) over a consistent beat.

A rhythm is defined as a pattern of sounds and silences that repeats throughout time. While tempo is the absolute pace at which beats occur, rhythm is the ratio of the relative time intervals between the onsets of musical events.

> *"Tempo and rhythm are independent. Rhythm is the temporal patterning of events, while tempo determines the rate at which these patterns occur. Two pieces of music can have the same rhythm at two different tempos or two different rhythms at the same tempo." (Plack, 2018, 249)*

Meter

Meter is the organization of beats into bars in music notation, with the first beat in each bar usually having more stress. Meter is indicated by a time signature and vertical bar lines that show where one bar ends and another begins. Musicians emphasize specific beats, for example, by utilizing a higher level or longer duration for notes at the beginning of a measure than for other notes in the melody, to communicate the piece's tempo, rhythm, and meter.

Timbre | ˈtambər |

The Harvard Dictionary of Music describes timbre as "the character of a sound distinct from its pitch, length, or intensity; tone or color."

The word timbre, like pitch, refers to the subjective experience, not to the physical characteristics of the sound. The timbre of a complex tone depends in part on the relative

magnitude of the various harmonics of which it is composed. This distinguishes the ethereal purity of a flute, the sound of which is dominated by low harmonics, from the rich tone of a violin, which contains energy across a wide range of harmonics. Instruments that produce intense high-frequency harmonics (e.g., a trumpet) will tend to sound “bright.” Instruments that produce intense low-frequency harmonics (e.g., a French horn) will tend to sound “warm” or “dark.”These characteristics are evident even if the different instruments are playing the same note.

Furthermore, timbre in musical instruments is the result of three main factors: material of the instrument (wood, metal, animal skin, plastic, vocal cords and other materials.), the attack or articulation (what does the beginning of the note sound like? What is the instrument struck or played with? Is the attack soft or hard?) And the sustained pitch. (what does the note sound like after the attack? Intensity of sound? Is there the presence of vibrato?) (Vibrato refers to a rapid variation of pitch adding richness to a sound)

Dynamics

Dynamics are the aspect of music relating to degrees of loudness. You might recognize some of the following terms: *forte, fortissimo, crescendo or diminuendo*. These are the volumes of musical pieces described with Italian words:

1. Fortissimo (ff) - very loud
2. Forte (f) - loud
3. Mezzo forte (mf) - medium loud
4. Mezzo piano (mp) - medium soft
5. Piano (p) - soft
6. Pianissimo (pp) - very soft
7. Crescendo (cresc.) - gradually loudening
8. Diminuendo (dim.) - gradually softening

Texture

Texture in singing refers to the pattern of sound created by the interaction of musical voices. (Apel, 1969)

There are different terminologies that indicate a variety of patterns identified as textures.

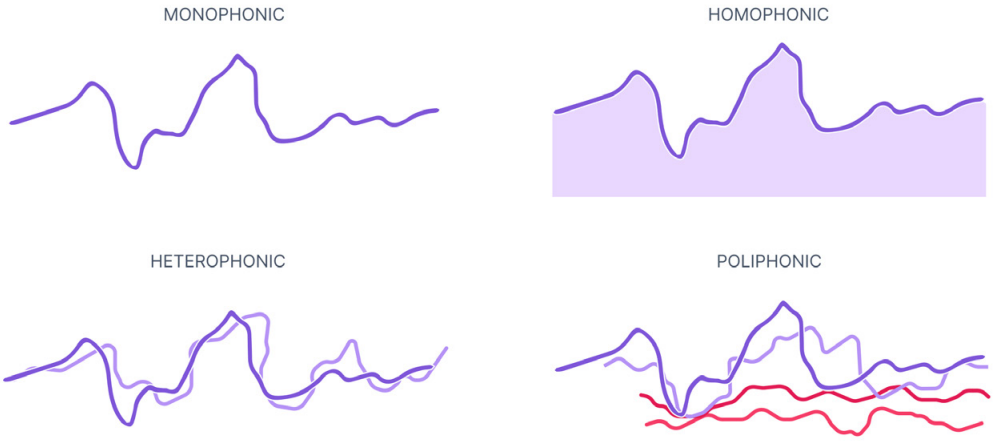
1. Monophony is a single line of music occurring at a given time. This may be a solo (single performer) or performed in unison (multiple performers on the same line of music). Different instruments and voices can perform in monophony even if they are performing the lines in different octaves - think about a group all singing “Happy Birthday” together on the same note at the same time.

2. Heterophony: almost like unison - except one voice will do a little more than the others - think of a solo gospel singer ornamenting/decorating the melody that the rest of the choir is singing.

3. Homophony: two or more voices - one voice is the melody and the other voice(s) serve in support roles. This is the texture most Western Classical and popular music falls into - but many world music traditions do not adhere to this format.

4. Polyphony: two or more voices moving independently from one another at the same time; also known as counterpoint. This can sound dissonant - with the two independent voices clashing - or it can sound consonant, with the musicians performing lines that interlock well with each other even though they’re very different from each other.

↙ [Fig. 20] Different textures of music visualized with waveforms.



This is the end of the short glossary about sound and music. Basic terminology knowledge allows for deep diving into research studies on how people perceive and experience music when some of the above cited characteristics are modified. *The Affective Value of Pitch and Tempo in Music and The Hevner Adjective List* by Kate Hevner will guide the reader through the next chapter and help highlight the connection between music and emotions.

1.4 Music Semantics

Keywords: Hevner's Adjective List; semantic priming; music familiarity; cognitive semantics of music; metaphor; brand recall;

Although music has been around since the beginning of mankind, there is still a lot of scientific debate on whether this form of art can actually convey meaning by itself and be understood by humans, as language does.

In fact, "music semantics refers to the ability of music to convey semantic meaning. Semantics are a key feature of language, and whether music shares some of the same ability to prime and convey meaning has been the subject of recent study." (Wikiwand, 2018)

Most theorists of music describe at least four different aspects of musical meaning (Wikiwand, 2018):

1. meaning that emerges from a connection across different frames of reference suggested by common patterns or forms (sound patterns in terms of pitch, dynamics, tempo, timbre etc. that resemble features of objects like rushing water, for example).

2. meaning that arises from the suggestion of a particular mood.

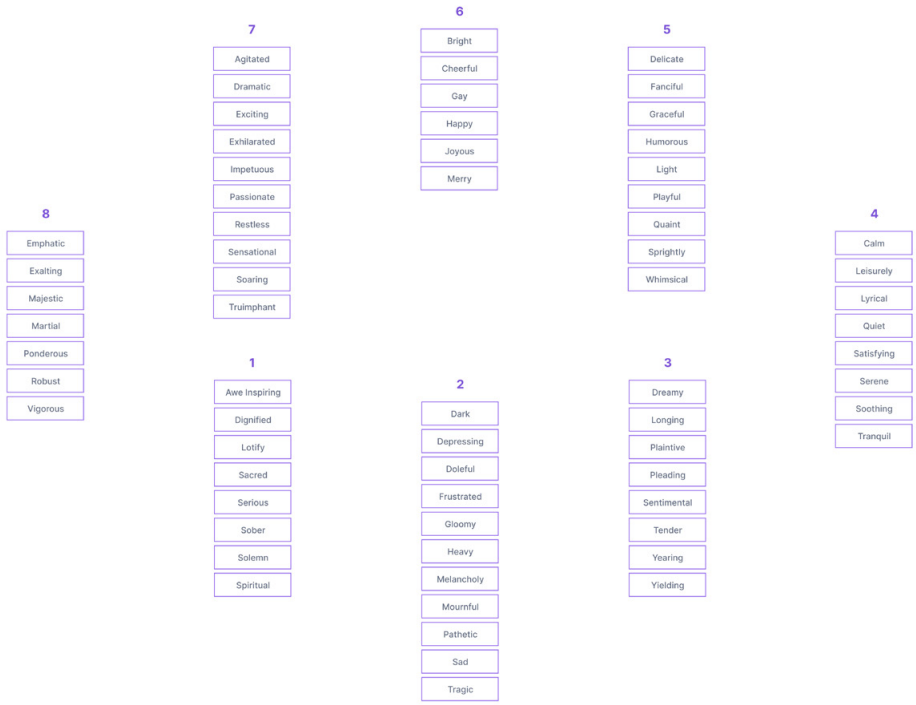
3. meaning that results from extra-musical associations (national anthem, for example).

4. meaning that can be attributed to the interplay of formal structures in creating patterns of tension and resolution.

Many studies have tried throughout the years to establish a direct correlation between certain kinds of music and linguistic semantic meanings. The first documented study that investigates the semantics of music dates back to 1937 and was written by the acclaimed American psychologist and educator Kate Hevner. In The affective value of pitch and tempo in music, Hevner tries to measure music expressiveness through a series of experiments. This study is also a summary of multiple papers published respectively in 1936 and 1935 in which Hevner first presents a list of adjectives apt to the description of pieces of music. This adjective list will be known in the years that followed as the Hevner's Adjective list and will be the main point of reference to this day of direct correlation between certain types of music and emotion connected to it.

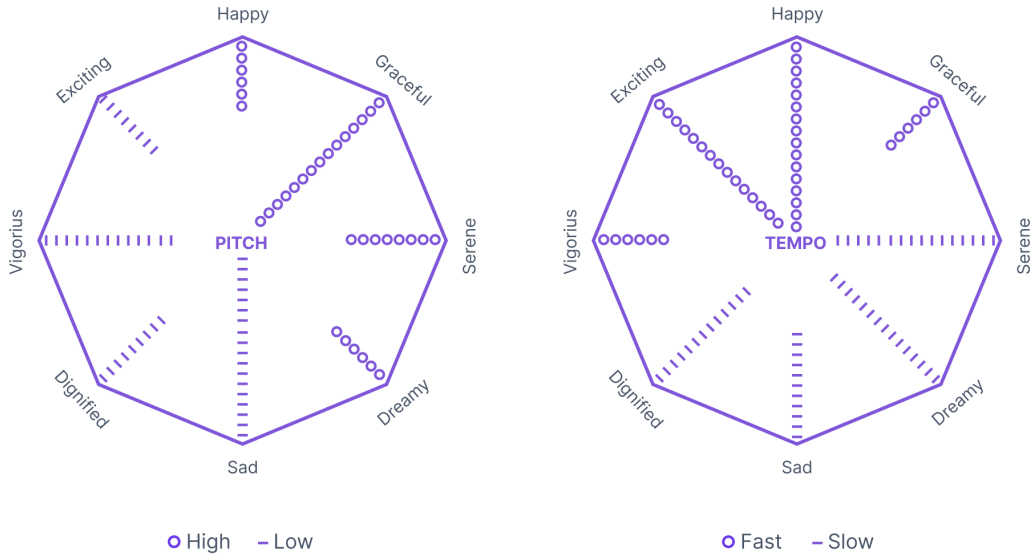
> *In The affective value of pitch and tempo in music, Hevner tries to measure music expressiveness through a series of experiments.*

↙ [Fig. 21] Revisited Hevner's list "mood clock" in a table form.



In *The affective value of pitch and tempo in music*, the resarcher exposes several University class groups to two distinct musical programs and asks them to choose the corresponding adjective when hearing a specific piece of music. The adjectives are clustered into eight different groups: Happy, Graceful, Serene, Dreamy, Sad, Dignified, Vigorous and Exciting.

↘ [Fig. 22] Relative effectiveness of pitch and tempo on every affective state.



Here follows what Dr. Hevner discovers:

> *"In this series of experiments, pitch and tempo show themselves to be of the greatest importance in carrying the expressiveness in music. Tempo plays the largest part of any of these factors. It yields majorities on all groups and its effects are clear-cut and consistent. [...] Pitch, like tempo, covers all eight groups with substantial effects on each, and should probably be rated as third in importance. High pitch shows its largest effects on the humorous-sparkling-playful tone and low pitch divides its effectiveness over sad, dignified, and vigorous-majestic groups. [...]*
>
> *Harmony and rhythm are on the whole less effective than these first three variables, for they show smaller majorities and cover a more restricted range of feeling tone." (Hevner, 1937, 626)*

This is the first record of a study that can prove that a high pitched tone is associated with humorous-sparkling-playful adjectives.

Furthermore, towards the end of this research paper, Hevner also noticed that “sadness is best expressed by the minor mode, a low pitch and a slow tempo. With dissonant harmonies lending substantial support and rhythm and melody of little significance.” (Hevner, 1937, 627)
A significant discovery was made in 2004 by researchers Stefan Koelsch, Elisabeth Kasper, Daniela Sammler, Katrin Schulze, Thomas Gunter and Angela Friederici in a paper published in Nature magazine called Music, language and meaning: brain signatures of semantic processing.

The researchers set out to experiment on whether or not music can activate brain mechanisms related to the processing of semantic meaning. In order to find out, they compared the processing of semantic meaning in language and music. In order to objectively establish if music would trigger the same neurological semantic reactions, they used an electrophysiological index of semantic priming called N400.

The N400 is a negative polarity ERP component that is maximal over centro parietal electrode sites; the N400 usually emerges at about 250 ms after the onset of word stimulation and reaches its maximal amplitude at around 400 ms. The N400 elicited by words is highly sensitive to manipulations of semantic relations, being attenuated by words that are preceded by a semantically congruous context, compared to when preceded by a semantically incongruous context. That is, when a word is preceded by a semantic context, the amplitude of the N400 is inversely related to the degree of semantic fit between the word and its preceding semantic context. (Koelsch et al., 2004, 1)

> *Their results indicate that both music and language can prime the meaning of a word, and that music can, like language, determine physiological indices of semantic processing.*

They found that the N400 priming effect did not differ between language and music with respect to time course, strength or neural generators. Their results indicate that both music and language can prime the meaning of a word, and that music can, like language, determine physiological indices of semantic processing.

This has been the first real evidence of a scientifically proven process in which music conveys meaning. This scientific evidence is extremely important when thinking about music branding and its potential development.

However, the semantic meaning conveyed by music can be influenced by several factors. Let's take, for instance, demographic differences or diverse musical backgrounds. These would all be deciding factors in determining how music semantically touches one person with respect to another. In 2007, researchers Micheline Lesaffre, Liesbeth De Voogdt, Marc Leman, Bernard De Baets, Hans De Meyer and Jean-Pierre Martens conducted a study called How Potential Users of Music Search and Retrieval Systems Describe the Semantic Quality of Music. In the study they found out that “gender, age, musical expertise, active musicianship, broadness of taste and familiarity with music have an influence on the semantic description of music.” (Lesaffre et al., 2008, 1) after conducting a large scale study on the influence of demographic and musical background on the semantic description of music with different users involved.

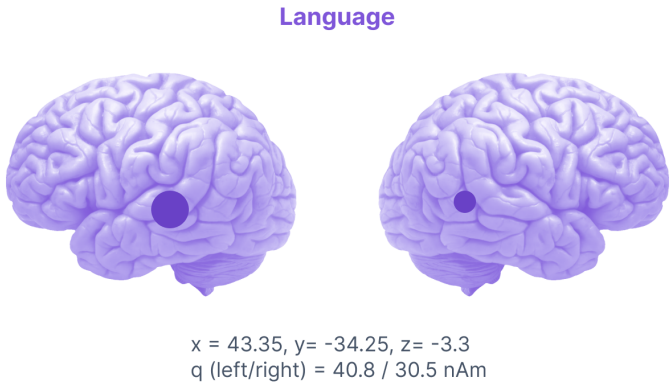
So if the connection between conveying a semantic appropriate meaning and playing music has been identified as plausible by the studies cited above, how do we conceive music? Is there really something like music semantics?

Fortunately, researcher Mihailo Antovic with Towards the Semantics of Music: the 20th Century shed light on a very peculiar topic and cited various experts on this topic.

Substantially, his thesis explores the cognitive semantics of music. The “cognitive semantics of music” -he says- "seems is appropriate since it turns the question of musical meaning upside down: the issue is no longer whether music has meaning, not even whether listeners project a meaning into music which is itself meaningless; rather, the question becomes what our conceptualization of music can tell us about our conceptual system in general. This shift of approach has,

I believe, provided a sound basis for the foundation of true musical semantics. (Antovic, 2009, 6)

Furthermore, Antovic also states: “whatever way we conceive of music, we metaphorise” and goes on to explore a study (Mark & Larson, 2003, 70) by Johnson and Larson carried out in 2003 that approaches the problem of musical meaning from a cognitivist perspective. Antovic says: “For them [Johnson and Larson], three typical metaphors westerners use to conceptualize music include Musical Motion, Musical Landscape, and Musical Force. The novelty in this paper is their use of Lakoff and Johnson's cross-domain mapping to explain the grounding of such metaphors. This seems to be the first analytical system from a linguistic semantic theory that works in the domain of music.



↙ [Fig. 23] Grand-average source reconstruction of the N400 effect elicited by target words after the presentation of sentences (top) and musical excerpts (bottom).

> *Whenever we say things like "The strings slow down now", or "The music goes faster here", we actually visualize this music as a series of physical objects moving through space at different speeds. The physical (motion) is related to the abstract (music), the source domain maps onto the target, and musical conceptualization is fully accorded with Lakoff and Johnson's system.*

This is especially interesting when we look at [Fig. 24] because «whenever we say things like "The strings slow down now", or "The music goes faster here", we actually visualize this music as a series of physical objects moving through space at different speeds. The physical (motion) is related to the abstract (music), the source domain maps onto the target, and musical conceptualization is fully accorded with Lakoff and Johnson's system.» (Antovic, 2009, 7)

↘ [Fig. 24] The moving music metaphor source domain.

THE MOVING MUSIC METAPHOR SOURCE DOMAIN Source (phisical motion)		TARGET DOMAIN Target (music)
Phisical object	=	Musical event
Phisical motion	=	Musical motion
Speed of motion	=	Tempo
Location of observer	=	Present musical event
Objects in front of observer	=	Future musical event
Objects behind observer	=	Past musical event
Path of motion	=	Musical passage
Starting/ending point of motion	=	Beginning/end of passage
Temporary cecssation of motion	=	Rest/cesura
Motion over same path again	=	Recapitulation, repeat
Physical forces (inerion, gravity, magnetism)	=	Musical forces (inerion, gravity, magnetism)

An interesting study on the effectiveness of music semantics in music branding has been conducted by myself and the following Politecnico di Milano students Jacopo William De Denaro, Arianna Dipollina, Alicia Invernizzi and Alessandro Vergani during the Bachelor Metaprogretto course at Communication Design at the School of Design in 2016. The study was called *Audio branding. Identità sonora nelle marche*, and had the following structure. After analyzing the state of the art music branding in 2016, we sent out an online survey that asked 282 respondents in Italy to listen to several audio logos. Inside the survey, participants were asked to recognize the brand associated with a specific audio logo, establish a category in which they would feel the audio logo belonged to (choosing from automotive, food and beverages, movies and technology) and assign an adjective describing the emotion they would have most likely associated with the audio logo (choosing from a variety of adjectives that would change based on the audio logo). In the following table here is the result of the study:

↙ [Fig. 25] Results from online survey carried out in 2016 in Italy on audio branding during a course at Politecnico di Milano.

Brand	Audio logo - recognized (%)	Audio logo - didn't recognized (%)	Industry assigned	Most voted descriptive adjective (**in bold**)
McDonalds	75.9%	24.1%	Food and beverages	**Joyful** Complex Simple Smart
Intel	39.2%	60.8%	Technology	**Technical** Fast Natural Slow
XBox	10.7%	89.3%	Technology	**Technical** Energetic Rhytmic Happy
Rai	44.3%	55.7%	Movies	**Likable** Simple Smart Reflective
THX	13.3%	86.7%	Movies	**Energetic** Fast Technical Reflective
BMW	19.6%	80.4%	Automotive	**Energetic** Natural Fast Reflective

It is important to note that the majority of the people we interviewed and talked to could identify the industry related to the specific sound, but could not recall the exact name of the brand/or the correct company.

E.g. The THX sound was 100% associated with movies, but the majority of people couldn't tell what brand it was from. The same happened with the BMW sound, mistakenly associated with other car manufacturers.

The study tried to deep dive into acoustic brand recall/recognizability and semantic association of adjectives to music.

> *The authors confirm that indeed, music carries a semantic meaning within its own genre and characteristics. They were able to establish a solid correlation between what was benign played to different participants and how they perceived the music track.*

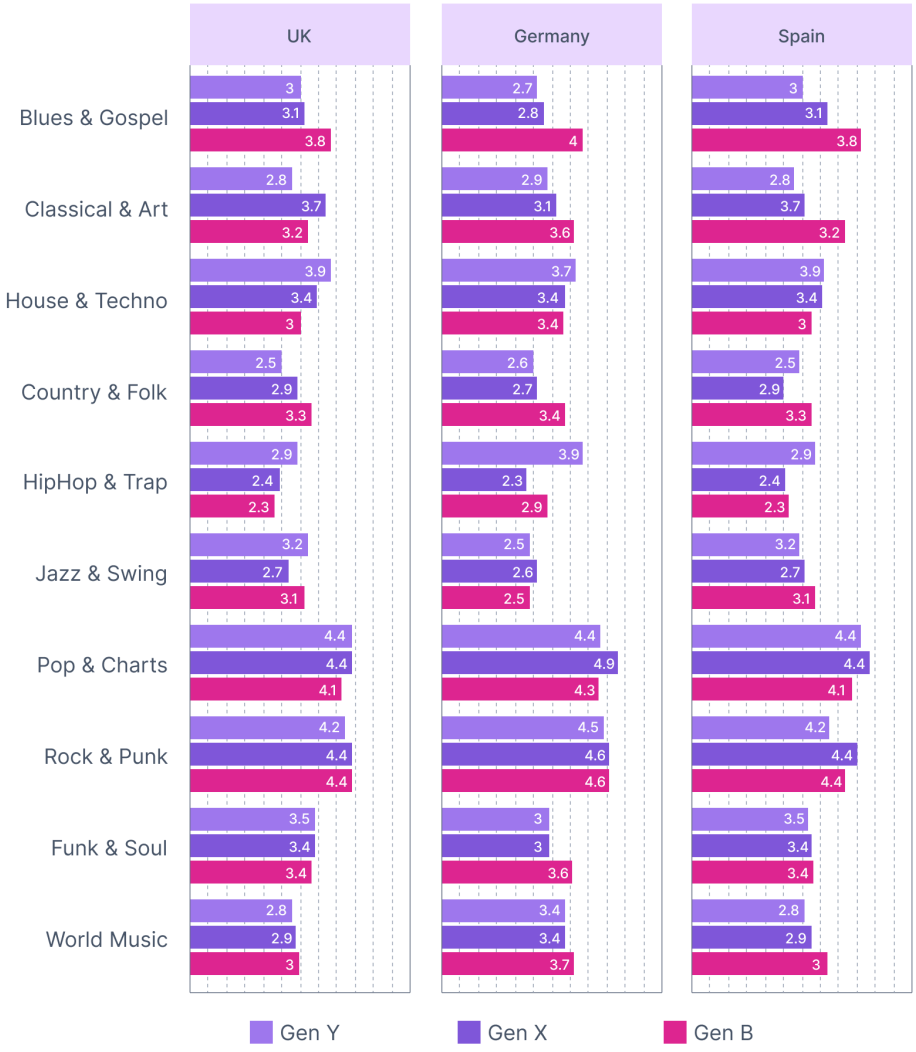
Lastly, I want to close this paragraph by citing an extensive study carried out and published in 2020 by researchers Lepa, Steffens, Herzog and Egermann. In Popular Music as Entertainment Communication: How Perceived Semantic Expression Explains Liking of Previously Unknown Music, the authors confirm that indeed, music carries a semantic meaning within its own genre and characteristics. They were able to establish a solid correlation between what was benign played to different participants and how they perceived the music track. They could also confirm that music is able to convey similar semantic meaning although being played by different generations of people in different countries.

Moreover, they “exhibit that music is such a stable, non-verbal sign-carrier that a machine learning model drawing on automatic audio signal analysis is successfully able to predict significant proportions of variance in musical meaning decoding.” (Lepa et al., 2020, 1)

In synthesis: researchers seem now to agree that music bares semantic meaning to whomever listens to it, thus enabling creatives and musicians to take advantage of the scientific knowledge in Music Semantic and Music Perception in order to design better sounding, greater meaning-conveyer sonic tracks for the brands of the future.

In this paragraph, several studies have been presented to the reader in chronological order with the goal of tracing a brief history of scientific processes in Music Semantics. The next paragraph will focus on Music Psychology and, more importantly, on how humans perceive music.

↙ [Fig. 26] Mean genre affinity by country and generation (scaled from 1 to 6)



1.5 The perception of music

Keywords: Emotional response to music; acquired amusias; music-message congruency; crossmodal correspondences.

Human perception and interpretation of sound has been a topic of research within Music Psychology that has kept and continues to keep researchers busy.

The psychology of music, or music psychology as it is also known, has a rich history, beginning with the ancient Greeks. Pythagoras (580–500 BCE) undertook a series of experiments with a monochord that laid the foundation for music theory and the inclusion of music as a mathematical science alongside arithmetic, geometry, and astronomy in the early Greek education system. Modern music psychology evolved in the nineteenth century, with a focus on sound properties, as well as the measurement and nature of musical ability. Since the 1960s, the area has expanded to encompass studies of music perception (especially pitch, rhythm, harmony, and melody) and how we react to it. Recently, there has been a focus on the impact of music on our emotions, how we engage with music in our daily lives, and the broader advantages of music to our health, well-being, and cognitive functioning. (Hallam, 2019, 9)

Whenever we listen to some music or pieces of conversation, are we always conscious of what processing our auditory and processing systems are going through? Most of the things we hear are processed autonomously and without even requiring our attention.

In a 1993 study called *The Effect of Background Music on Ad Processing: A Contingency Explanation*, researchers expose a fundamental truth about the world of audio advertising by stating: “Though most of the research literature has focused on emotional responses to ad music, it is also important to consider music's impact on message reception and processing. Creative positive feelings during ad exposure may be desirable but have little impact unless the brand and message are remembered” (Kellaris et al., 1993, 114)

The concept of recall and recognition is very important, as we have already seen in the previous paragraph in the 2017 Politecnico di Milano study: people could associate emotional

responses to the music itself or even associate the industry to which the music belongs to, but -most of the times- could not recall the brand itself.

↙ [Fig. 27] Pythagoras and early musical instruments like the monochord.

Kellaris, Cox & Cox in the 1993 above cited study, after analyzing why support is mixed when it comes to proving that music increases ad memorability, introduce an important variable called music-message congruency. The term refers to “the congruency of meanings communicated nonverbally by music and verbally by ad copy”. Music can convey meanings in two distinct ways. First, it can convey a literal meaning by imitating a sound (e.g. birds' calls, traffic noises). Second, music can convey images, thoughts, and feelings even if they are more abstract.

Music-message congruency is then the “extent to which purely instrumental music evokes meanings that are congruent with those evoked by ad messages.” (Kellaris et al., 1993,)

Another study conducted by Kellaris and Kent in 1993, called *An Exploratory Investigation of responses Elicited by Music Varying in Tempo, Tonality, and Texture*, examines three dimensions of response to music (pleasure, surprise and arousal) elicited by three musical properties (tempo, tonality and texture). The goal of the experiment was to lay the foundation for specific guidelines when designing certain pieces of music destined to be used for commercial purposes. In the research, for example, Kellaris and Kent notice that faster tempi produce greater arousal among subjects exposed to a piece of pop-music. (Kellaris & Kent, 1993, 382)

Since ancient Greece, music has been related to emotions, and recent research demonstrates that people listen to music to attain varied emotional outcomes. Music can elicit a wide range of feelings, from simple arousal and 'basic' emotions like happiness and grief to more 'complex' emotions like nostalgia and pride. Even so, music does not necessarily elicit an emotional response. In fact, preliminary findings suggest that music only 'moves' us in around half of the episodes with music. Unfortunately, there is no theoretical understanding of which circumstances are more likely to elicit an emotional response and which are not. As a result, one of the ongoing key issues in this field is identifying the elements that influence emotional responses to music. (Liljeström et al., 2012, 580)

Before the development of digital imaging techniques that allow us to understand how the brain performs various activities, most of the understanding about where music is processed derived from a post-mortem neurological examination of individuals that suffered from traumatic events such as strokes and functional losses.

Thus, many studies focus on acquired amusia, meaning the inability to recognize musical tones or to reproduce them. Amusia, also called tone deafness, can be congenital or be acquired sometime later in life (as from brain damage).

Nevertheless, when studying the psychophysics of music, descriptors such as tones, tonal relationships, melodic contour, harmony, pitch, duration, timbre, intensity, and rhythm are used to reduce music to its essential physical components; however, most of us do not use them in our own, very personal, appreciation of music.

"When we listen to a piece of music, most of us at least do not consciously deconstruct the sounds into all their core elements; the total experience ("gestalt") is everything. What we hear depends on context—the relationships between sound components—and music perception requires a rapid abstraction and analysis of multi dimensional stimuli." (Harvey, 2017, 27)

↙ [Fig. 28] Person in auditory test signaling what can be heard.

We want to think of ourselves as reasonable beings who can separate our decision-making talents from our feelings. Since the days of Plato and classical Greek philosophy, this concept has been at the core of critical debate. However, cognitive science research is steadily eroding this assumption of the primacy of reason in decision-making. Researchers like neuroscientist Antonio Damasio and psychologist Daniel Kahneman have proposed that our brains do not function as we think they have over the last several decades. This means that emotions play an enormous role in the perception of music and in our decision-making process.

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This is probably what makes it so hard for researchers to define what sounds can be linked to a specific arousal in emotions. Music is a holistic experience, a multi-sensorial experience that involves and comprehends not only the physics of sounds, but also the experiences we lived, the people we listened to music with and all kinds of emotional attachment and memories we might have to a specific music track.

This is why, as established in paragraph one, it is often defined as art. By limiting music to a mere description of sound adjectives and trying to correlate with a set of rules proves itself to be an almost impossible challenge. So many factors are at play and so much can vary from individual to individual that defining guidelines and rules could be useless and not accurate.

A study called *The Smell of Jazz: Crossmodal Correspondences Between Music, Odor, and Emotion* encompasses the complexity of multi-sensorial experiences and tries to categorize them in order to understand them better. Based on a 2011 study, (Spence, 2011, 972) there are three different types of correspondences: structural, statistical and semantic.
Here's the definition of each one of them:

> **Structural correspondences** arise because of similarities in the information being provided by the different senses; for instance, magnitude may be represented by neural mechanisms that are common across modalities (e.g., bright lights might be matched to louder sounds because they both cause higher firing rates in the brain).
>
> **Statistical correspondences** arise via statistical learning; regularities in the environment, such as the fact that larger objects tend to create louder sounds, would cause a corresponding internal link between senses

Semantic correspondences are also learned, but relate to language; for instance, “high” pitches and “high” elevations use the same terminology, which could thus lead to an association between pitch and elevation.

Some studies have already examined the link between music and odors. For instance, Seo, Lohse, Luckett, & Hummel (2013) found that music (such as Christmas carols and the song “Y.M.C.A.”) and background sounds (such as beach sounds and toothbrushing) could be matched with specific odors and that those sounds could increase the odor’s pleasantness when the sound and odor were considered congruent. (Levitan et al., 2015, 1327)

One of the most influential studies on music and emotions has been the GEMS (Geneva Music Induced Affect Checklist) from the University of Innsbruck.

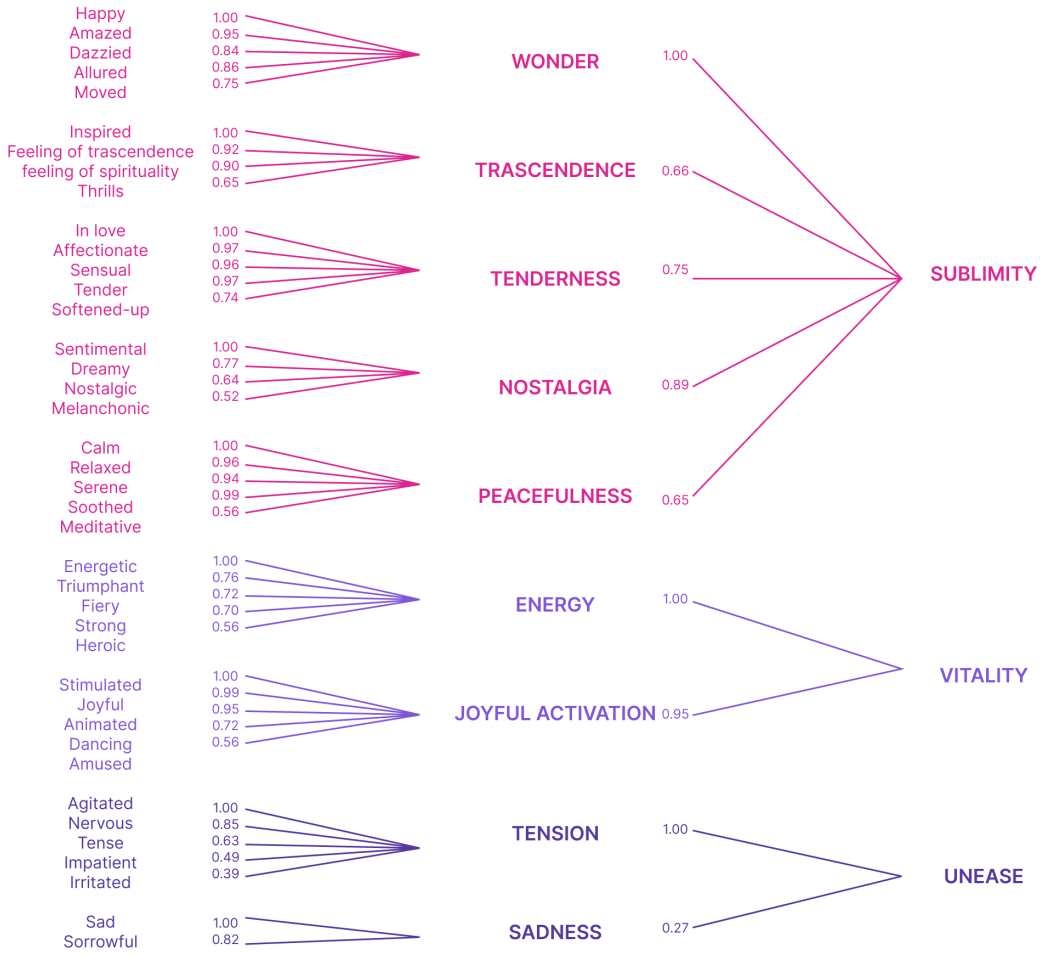
The GEMS is the world's first model and instrument dedicated to capturing the full range of musically evoked emotions.

It's part of a larger effort to comprehend musically induced emotions. The GEMS model is based on a number of studies that used a variety of music and listener samples. There are nine different types of musical emotions in the model.

This domain-specific model more effectively accounts for music-evoked emotion ratings than multi-purpose scales based on non-musical fields of emotion research. Furthermore, they discovered that the experience of musical emotions tends to activate certain emotional brain areas.

They also created the Geneva Emotional Music Scale as a complement to the concept (GEMS). The GEMS, which contains nine scales and 45 emotion descriptors, is currently widely utilized in music and emotion research. GEMS-25 and GEMS-9 are two shorter scales that have been designed. (Trost et al., 2011)

Needless to say, there is still a lot of research to be done in this field, but the latest academic results show that emotions play an important role in defining reactions to how music is perceived and experienced.



↖ [Fig. 29] Emotions evoked by the sound of music: Characterization, classification, and measurement

In Chapter One I have focused on introducing the concept of music and its connection to human beings. Then, I tried to give the reader a concise idea of the physics foundation behind the world of sound and waves. Next, I have divulged basic music terminology in order for the reader to get ready to understand theories on music and academic research work. Lastly, I have briefly spoken about Music Semantics and the Perception of Music, by commenting upon the historic and latest academic work on the subject. It is now time, in chapter two, for us to bring all of this knowledge forward and apply it to the concept of branding, more specifically, music branding.


PEAK
SIGNAL
PFL
Vocal
Elec
Guitar
Guitar
Vocal
Drums

2. Music Branding

Introduction

The second chapter is the core of this work. I will briefly introduce the concept of Brand, Corporate identity and Branding as a holistic practice. These three concepts are the ancestors of what we will then define as music branding thanks to a variety of different definitions coming from the industry's most renowned companies and associations. Later on, I will take you on a journey of discovery of the greatest sounds in history, starting from ancient Roman times up to today's holistic brand experiences. Right after the history of music branding I will present the complete process for creating a sonic identity for a brand. The specific process takes great inspiration from the traditional visual branding process, but it has its own declinations in terms of music and activities. Lastly, through the description of some of the most significant case studies from around the world, I will provide an original taxonomy of sonic identities that will try to highlight some of the common denominators in terms of creation and completeness of the project.

2.1 Introduction to Brand, Corporate Identity and Branding

Keywords: holistic; identity; process; value; competitive advantage; strategy; research; touchpoints; control; assets.

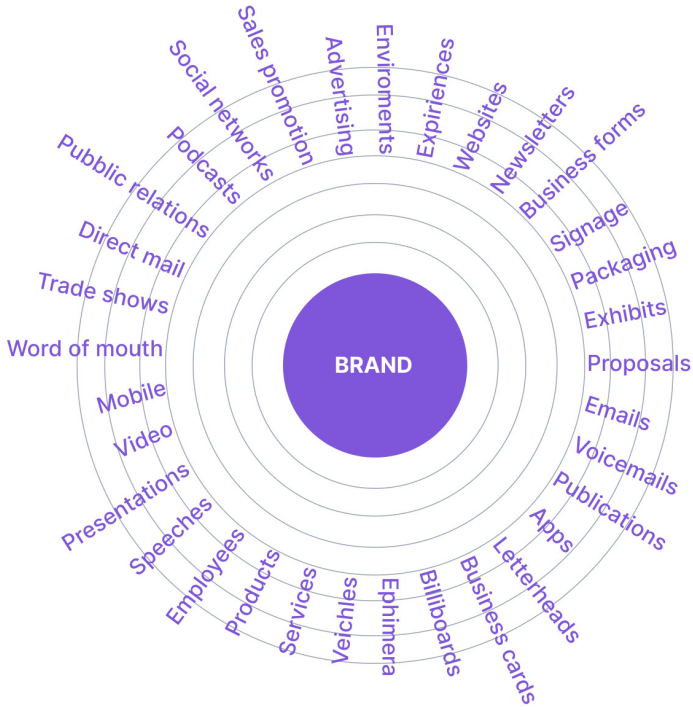
In order to talk about holistic music branding and the implications of a brand, I ought to talk about what a brand is and then describe what the branding process looks like.

In a world that continuously evolves, in which globalization and competition amongst brands is exacerbated, companies feel the need to communicate their identity in a distinct way, so that they can stand out from competition and their differences are immediately recognized. They have to communicate their competitive advantage in a clear and unequivocal manner, so that consumers are able to grasp the value they are trying to sell to them.

> *"As competition creates infinite choices, companies look for ways to connect emotionally with customers, become irreplaceable, and create lifelong relationships. A strong brand stands out in a densely crowded marketplace.*

> *People fall in love with brands, trust them, and believe in their superiority. How a brand is perceived affects its success—whether it's a start-up, a nonprofit, or a product." (Wheeler, 2017, 2)*

Brands also need to constantly evolve and adapt to their target and to the different touch points that grow with the experience they offer to customers. Rapid technological advancements bring new challenges to the brand, but also new opportunities and new touch points that will be leveraged as entry points for selling to target individuals.



↙ [Fig. 1] Brand touchpoints: each touchpoint is an opportunity to increase awareness and build customer loyalty.

It is important to distinguish between different kinds of brands. Here is a list of the main brand types as proposed by Carmi in his 2009 book *Branding. Una visione design oriented*:

Corporate brand where the brand identifies an entire company, a group, an institution or an organization.

Individual brand identifies only a single product

Family brand used to identify multiple products that fulfill similar needs

Umbrella brand in use when needing to cluster products that could be very different from one another but that nevertheless generate from the same unique promise of specific use of the product.

In order for a brand to be successful, recognizable and stand out from the crowd, it needs to have a brand identity. An identity, in branding terminology, refers to the external expression of a brand. It encompasses everything, from naming to visual elements, emotions that it conveys, up to acoustic presence and sensorial stimuli. (Carmi, 2009, 60)

> *"Brand identity is tangible and appeals to the senses. You can see it, touch it, hold it, hear it, watch it move. Brand identity fuels recognition, amplifies differentiation, and makes big ideas and meaning accessible." (Wheeler, 2017)*

Corporate identity appears to be the combination of how a brand is communicated to the market: its naming, colors, tone of voice, graphic organization and music.

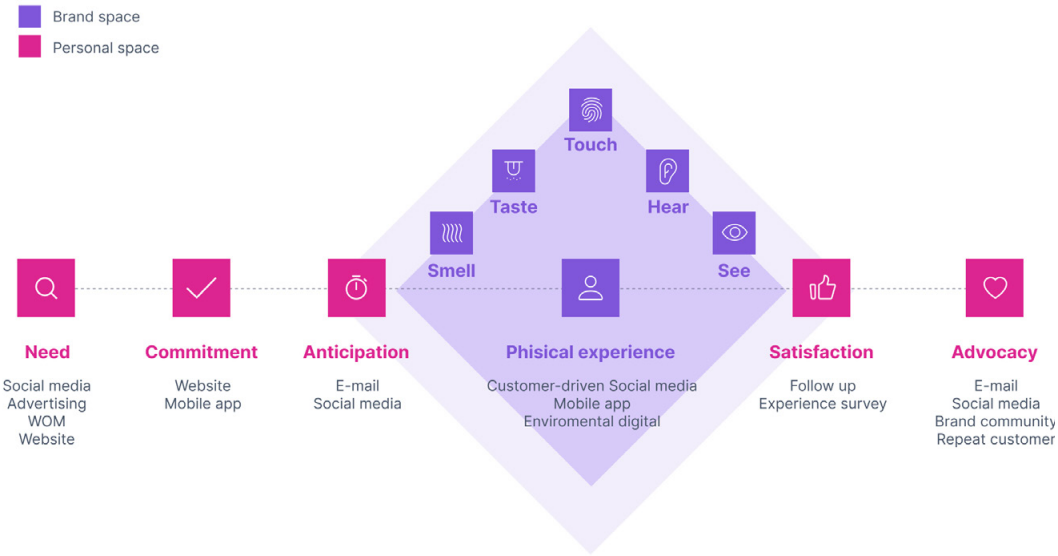
> *An identity, in branding terminology, refers to the external expression of a brand. It encompasses everything, from naming to visual elements, emotions that it conveys, up to acoustic presence and sensorial stimuli.*

We are now going to analyze branding as a holistic practice that includes both visual and auditory (music) branding. The following definitions and processes are somewhat similar to all the branding areas, they might differ in some specific connotation, but the overall structure also applies to music branding.

Therefore, here's the definition of branding from *Designing Brand Identity: An Essential Guide for the Whole Branding Team*:

> *"Branding is a disciplined process used to build awareness, attract new customers, and extend customer loyalty. Positioning a brand to be irreplaceable requires a daily desire to be the best. To be successful, brand builders need to stick to the basics, stay calm on the roller coaster of relentless change, and seize every opportunity to be the brand of choice." (Wheeler, 2017, 6)*

↙ [Fig. 2] Brand space vs. personal space: a map of the user juorney of a brand with multisensiorial touch-points.



How does a brand come to life? What are the processes that brought us the beloved brands we all know and recognize nowadays? Are there different kinds of branding?

The process of branding is very broad and it can be very demanding from an organizational and financial perspective. When starting a project of Corporate Design, designers should always connect and coordinate with the Design Strategy project.

In fact, strategists have the responsibility of creating and supervising a method, an algorithm of communication of the brand, while Corporate Design would be just one output of the algorithm that takes care of how the brand is communicated to the world.

There are also a series of different branding strategies. Based on what a brand is supposed to do, who identifies with the brand, how it behaves and so forth, Wheeler defines different types of branding:

Co-branding: Partnering with another brand to achieve reach

Digital branding: Web, social media, search engine optimization, driving commerce on the web

Personal branding: The way an individual builds a reputation

Cause branding: Aligning a brand with a charitable cause; or corporate social responsibility

Country branding: Efforts to attract tourists and businesses

There are also multiple theories on how to deploy the branding process. I am going to review two already-existing frameworks that cover the entirety of the process.

The first framework (Carmi, 2009, 105) [Fig. 3] states that the Corporate Identity process is articulated in five different phases:

↘ [Fig. 3] Project phases in corporate design, continuous control with bottom-up approach. (Carmi & Ubertis)

1. Analysis and strategic development

The first phase has the objective of identifying the main traits of the brand, its values, its equity. The output of this phase will highlight each and every potential value and competitive advantage of the brand in order for the team to understand why it is different from the rest of competition. This phase is characterized by stakeholder interviews, and strategic internal ideations in order to analyze all of the different attributes of the brand the team is about to build and work on.

2. Meta-project and research
In this phase the team lays down the foundation of the project. As *meta-project* means "the design of the design project", the team will be thinking of structuring their ideas assisted by in-field and online research sessions. The main output of this phase should include concepts that define the area of interest in which the project is situated, benchmark of competitor brands and conceptual references of the product or service you want your brand to reflect.

3. Creative development of the corporate identity
The third phase focuses on the creation of the corporate identity. Here the team will first embark in creative explorations, thanks to the use of mood boards and other sort of design tools that can aid in conveying the message, values and attributes of the brand to the team. After creating a mockup of the corporate identity it would be useful to test the samples with the reference target and then iterate on the feedback provided from the user tested. Focus group or other interview methodologies can be used at this stage.

4. Development and creation of corporate identity touchpoints
Phase four begins when the corporate identity is "frozen". Once the design has been chosen, it can be applied to multiple touchpoints. The objective of the phase is to ensure flexibility and scalability to the corporate brand while maintaining the maximum control and coordination of all its expressions.

5. Manage and control corporate brand assets
Lastly, this phase has the goal to develop and maintain a pool of tools that provide guidance in the use of the brand and its correct implementation in all of the different touchpoints. Usually these tools are collected into the brand guidelines manual, online brand knowledge platform and/or other digital tools for collecting and categorizing brand assets. Brand knowledge tools contribute to the correct communication and comprehension of brand values in all business units.

The second framework [Fig. 4] essentially uses the same principles of the previously analyzed one but with small differences.

↗ [Fig. 4] Branding process phases (Wheeler)

In this model research and strategy are basically swapped. The team would start by doing research on a specific topic to then turn to clarifying the strategy behind the creation of the brand identity. The last three steps follow the same logic of the previous model. But with different naming conventions.

Although the branding practice is very much well-defined nowadays and has become a standard for corporations and companies around the world, it might be useful to remind the reader of how branding was born.

Before the 20th Century there was no such thing as a holistic corporate identity project. Products and services were being advertised through paper via images that could have resembled logos and text. But it wasn't until 1907 with Peter Beherens and AEG that Corporate identity began to develop. From there on prominent companies in Europe and then in the United States followed suit: Olivetti, IBM, Shell, BMW are just some of the names of big corporations that adopted the standard of branding early on in the history of their products.

For a deeper understanding of the history of branding please refer to *Branding. Una visione design oriented*, the Italian publication by Elio Carmi, professor at Politecnico di Milano and founder of Carmi & Ubertis branding design agency in Milan.

In the next paragraph we will go through the history of music branding, to grasp how it came to life, what similarities it shares with visual brading and what makes it unique in the branding practice panorama.

2.2 Definition of music branding

Keywords: audio branding; sonic branding; acoustic branding; acoustic brand management; acoustic brand management; audio marketing; sound marketing or acoustic brand communication.

This paragraph finally introduces the topic and the foundation of this entire work. In the following pages you will read different definitions of music branding and you will encounter many different terminologies that refer to the same practice. Before we deep dive into the definition, we must clarify why this thesis refers to music branding with this specific terminology and what choices I have taken in order to align with the industry scenario of the time in which this publication is written.

There seems to be some confusion in the academic world and in the industry right now on terminology. We hear different terms that are used and refer to the same or different things depending on who is using them, how and where you hear them. An attempt to better define this practice was initiated in 2016 by Herzog, Lepa, Egermann, Schoenrock & Steffens with *Towards a Common Terminology for Music Branding Campaigns (MBET)*. In their paper they refer to the practice as music branding, even though we might have heard different terms such as: audio branding, sonic branding, acoustic branding, acoustic brand management, audio marketing, sound marketing or acoustic brand communication. Obviously, their work is not limited to choosing an umbrella term for the practice, but it also expands to different terminologies in music categorization, specifically tailored to music branding. Nevertheless, they believe that the term can be comprehensive and specific enough to talk about the whole practice.

> *For a long time, sound and music have been recognised as important means for communication in marketing under the label of sonic branding (Gustafsson, 2015), audio branding (Bronner & Hirt, 2009), or sound branding (Steiner, 2014). The approved ability of music and sound to affect listeners emotionally (Juslin & Västfjäll, 2008; North & Hargreaves, 2008) and convey socio-cultural meaning and values (Stone, 2016; Tagg, 2013) is the main reason why marketing practitioners increasingly rely on music as a powerful channel for brand communication*

> *(Jackson, 2003; Kilian, 2009). Focusing specifically on music as a central means for communicating brand identity, we will only use the term music branding (Müllensiefen & Baker, 2015) throughout this work. (Herzoga et al., 2020, 8)*

In the wake of their decision and given the work that Herzoga et al. have initiated in order to bring a clear terminology in the realm of music branding, I have decided to adopt their terminology and will only refer to the practice as music branding, in this work. Of course, you might still find the words sonic, acoustic and audio branding in interviews, citation and online resources of this work.

A great starting point for a definition of music branding is the International Sound Awards (ISA). The association's goal is to promote innovative, smart and useful sound projects, products and services that contribute to their motto: Make The World Sound Better!

↘ [Fig. 5] International Sound Awards (ISA) ceremony in 2019, group photo with winners.

They are also a great point of reference for major music branding companies around the world. Here's their definition of music branding:

Audio Branding describes the process of brand development and brand management by use of audible elements within the

framework of brand communication. It is part of multi-sensory brand communication and holistic brand design. Audio Branding aims at building solidly a brand sound that represents the identity and values of a brand in a distinctive manner. The audio logo, branded functional sounds, brand music or the brand voice are characteristic elements of Audio Branding. (What Is Audio Branding? - ISA, n.d.)

Or, in easier terms by PHMG:

> *"Put simply, audio branding is the use of sound to define, reinforce and strengthen a company's identity. Music, voice artistry, copy and sonic logos all play their part in getting a business name heard, and companies can deploy one, all, or a combination of these elements in various auditory channels." (The Ultimate Guide to Audio Branding, n.d.)*

And some even say that "sound branding is the umbrella term for the process of making brands (or components of brands) audible." (*What Is Sound Branding?*, n.d.)

As you can see there is a lot of terminology all over the place, but let us focus on the last definition: "the process of making brands audible". The audible perception of the brand is controlled and conveyed through permanent mental connections. Companies' corporate identities, which were previously only visible visually, are now complete with sound. The brand's ability to successfully position sound in the foreground or background of entrepreneurial initiatives is a key distinguishing factor. Music branding is an important aspect of communication since it allows you to stand out from the crowd; it establishes a strong audible link between your brand and your target audience.

Brands have spent a lot of time and money on visual branding so far, but sound hasn't been seen as a brand element that has to be investigated. The rise of new media and devices with built-in audio delivery, such as podcasts, streaming media, and smartphones, extends the possibilities for audio branding while simultaneously raising the risk of noise pollution and cacophony. Unsystematic and unstructured deployment of audio stimuli often compromises the effectiveness and efficiency of brand communication. Audio branding may help to improve a brand's communication and create a better-sounding environment.

You might be wondering where music branding is currently employed and what companies have chosen to expand their corporate identity in order to sound like they should. I am happy to communicate to my reader that Paragraph 2.5 is completely dedicated to the review and comment of best practices and most successful case studies of holistic music branding.

Nonetheless, The International Sound Awards have compiled a list of different categories where sound can play an important role and transform the experience of the consumer with a specific brand.

1. Product: all designs involving digital or acoustic (mechanical) product sound. Audio Software and Hardware, Musical Instruments, Functional Sound, Sonic User Interface, 3D-Sound, Game Sound, Auditory Display, Sonification, Augmented (Sound) Reality, Virtual (Sound) Reality.

2. Research & Development: outstanding scientific work and developments. Studies should be substantially completed. Development should have reached prototype status with proof of concept

.

3. Life & Society

3.1. Soundscapes and Ambient Sound: acoustic concepts and design for public spaces, e.g. exhibitions, museums, airports, train stations, hospitals, shopping malls etc.

3.2. Health: concepts and solutions to enhance health and well-being.

3.3. Universal Design: sound design concepts for products, services, buildings and environments that contribute to inclusion and accessibility as well as to the enjoyment of life through aesthetic expression.

3.4. Social & Culture: intelligent and innovative concepts and solutions that make an important contribution to society and culture.

3.5. Noise Protection: projects for noise protection and the preservation of silence as well as intelligent and innovative application in products and services.

4. Corporate Communications

4.1. Audio Marketing: marketing projects that integrate sound in an essential way. In contrast to audio branding, the sound does not have to serve brand-building purposes. The projects should demonstrate the advantage of an intelligent and innovative application of sound.

4.2. Audio Branding: audio branding cases that show a strategic branding approach and a clear audio branding methodology.

5. Voice and Audio Dialogue: voice Control, Interactive Voice Response (IVR), Call Management, Text to Speech Systems (TTS), Speech Recognition etc.

6. Services and Sound Start-ups: innovative sound and music services. Convincing sound and music business models by start-ups.

7. Sound Art: intelligent and innovative projects that contribute to the mission “Make the world sound better!”

Music and sound are beneficial to all of these sectors and they serve the purpose of differentiating one brand from another. The range of applications in music branding represents a great challenge and potential confusion in its definition. Even so, the main takeaway of the definition of music bra

nding is that it helps the brand to communicate itself through a series of audible assets. It is part of the multi-sensorial communication of a brand and a holistic vision of corporate design. Music branding aims to build the foundation of the sound of a brand that will represent its identity and values in a distinct way.

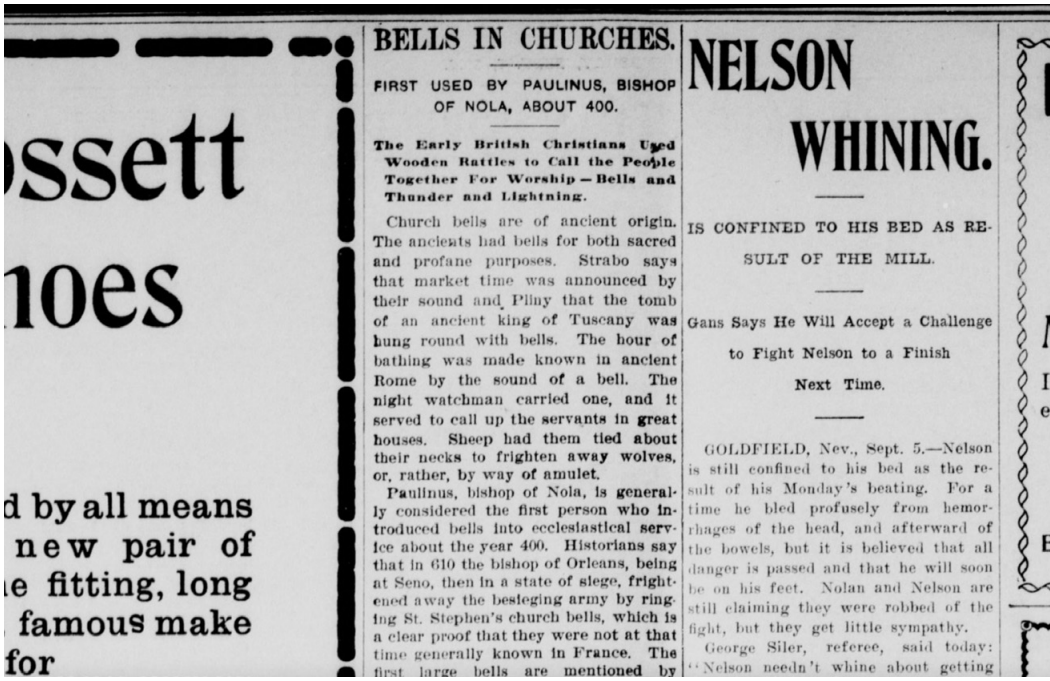
2.3 Historic timeline of music branding

Keywords: bells; pavlovian effect; jingle; marque sonique; ultrasonic speakers; cultural relevance.

As the reader might well imagine, sound isn't new. Sound has been around since mankind can remember. It used to be our greatest ally against animals approaching in the forests and imminent danger, in some cases, it still is. For most of human history, there was no recording technology and songs could only be kept alive through memorisation. It's still a mystery how we came up with music in the first place, but it happened long before language was invented.

But what about branded sound? How far back can we actually go in order to find a sound that was logically associated with a "brand" or something that resembled it?

↘ [Fig. 6] Bells in churches first used by Paulinus, Bishop of Nola. Article from the Hanford Journal.



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BELLS IN CHURCHES.

FIRST USED BY PAULINUS, BISHOP OF NOLA, ABOUT 400.

The Early British Christians Used Wooden Rattles to Call the People Together For Worship—Bells and Thunder and Lightning.

Church bells are of ancient origin. The ancients had bells for both sacred and profane purposes. Strabo says that market time was announced by their sound and Pliny that the tomb of an ancient king of Tuscany was hung round with bells. The hour of bathing was made known in ancient Rome by the sound of a bell. The night watchman carried one, and it served to call up the servants in great houses. Sheep had them tied about their necks to frighten away wolves, or, rather, by way of amulet.

Paulinus, bishop of Nola, is generally considered the first person who introduced bells into ecclesiastical service about the year 400. Historians say that in 610 the bishop of Orleans, being at Seno, then in a state of siege, frightened away the besieging army by ringing St. Stephen's church bells, which is a clear proof that they were not at that time generally known in France. The first large bells are mentioned by

NELSON WHINING.

IS CONFINED TO HIS BED AS RESULT OF THE MILL.

Gans Says He Will Accept a Challenge to Fight Nelson to a Finish Next Time.

GOLDFIELD, Nev., Sept. 5.—Nelson is still confined to his bed as the result of his Monday's beating. For a time he bled profusely from hemorrhages of the head, and afterward of the bowels, but it is believed that all danger is passed and that he will soon be on his feet. Nolan and Nelson are still claiming they were robbed of the fight, but they get little sympathy.

George Siler, referee, said today: "Nelson needn't whine about getting

→ 400 AD

As it turns out from research on the Roman Empire, the first branded piece of audio could potentially be associated with

Church bells. In fact, in 400 AD, the Roman bishop Paulinus of Nola (a city near Naples, Italy) introduced the use of hand-bells and then regular church bells to call the faithful to prayer. So, for centuries now, bells have been associated with Christianity and going to Mass. And after all, bells do a good job in driving the recognition of the “Christianity brand”.

↙ [Fig. 7] The traditional Haka Dance performed by the All Blacks before a rugby game to intimidate the opponent team.

→ 1800s

Although centuries have passed by, there is no significant trace left of other sounds that could be associated with a specific brand, event or group of people. Until the early 1800s where the haka dance, the New Zealand Māori traditional posture dance, was born. The dance was performed as a battle preparation ritual of warriors. This tradition began with the 1888–89 New Zealand Native football team tour and has been carried on by the All Blacks (New Zealand rugby union team) since 1905. (Hunt, 2015)

→ 1860s

On April 9, 1860, Edouard-Leon Scott de Martinville invented a device called the phonautograph and recorded the song "Au clair de la lune, Pierrot repondit." However, he never had any intention of playing it back. He just wanted to study the

pattern of sound waves made on a sheet of paper blackened by the smoke of an oil lamp. (*1860 'Phonautograph' Is Earliest Known Recording, 2008*)
Only 17 years later, in 1877, Thomas Edison invented the much more popular phonograph, which could now also playback records. This is the first device for mechanical recording and sound reproduction. Before that, all human musical knowledge had been passed down orally. (Trabattoni, 2021)

↘ [Fig. 8] A phonograph, the first instrument that was able to play back sounds.

→ 1896

In Paris, the Lumière brothers opened the world's first cinema. They rapidly learn that moving visuals without sound is ineffective at retaining viewers' attention. They hired an orchestra to play along with the movies due to a lack of acceptable audio technology. It immediately became a worldwide phenomenon.

→ 1890

Ivan Pavlov, a Russian physiologist, developed the concept of conditioned reflex. Pavlov predicted that the dogs would

↖ [Fig. 9] Éden-Théâtre was one of the world's first cinema in the streets of Paris.

salivate in reaction to the food placed in front of them, but he discovered that his dogs began to salivate whenever he heard his assistant's footsteps approaching them with the meal. Pavlov thought he had made a significant scientific breakthrough when he observed that any object or event that the dogs had learned to link with food would elicit the same response. As a result, he has spent the rest of his career researching this form of learning. This discovery is referred to as Classical Conditioning.

→ 1920

The radio. A powerful one-way communication device that you can listen to, but not answer back. This fits perfectly with the purpose of capitalism. Music was an essential characteristic of advertising back in the 1920s.
The first use of music in advertisements dates back to 1926, with General Mills' Wheaties radio commercial. General Mills had just launched the cereal box on the market two years earlier, but the product wasn't catching on. GM decided to give a shot to a jingle called "Have you tried Wheaties" written by Earl Gammons (the publicity man of the radio station it

first aired on) and performed by a vocal quartet.

> *"Each week for three years, the quartet sang the Wheaties jingle, getting paid $15 ($200 in today's dollars). They performed live every time because practical recording equipment had not yet been invented." (What Wheaties Did to Jumpstart Our Cereal Success, 2016)*

↘ [Fig. 10] The quartet hired by General Mills to perform Wheaties' jingle weekly.

After three years, sales were still pretty low nationally, but almost 60% of Wheaties sales were in the Minneapolis-St. Paul area – the only place where the "Have You Tried Wheaties?" jingle was regularly broadcast.

Here goes the jingle:

"Have you tried Wheaties? They're whole wheat with all of the bran. Won't you try Wheaties? For wheat is the best food of man. They're crispy and crunchy the whole year through. The kiddies never tire of them and neither will you. So just buy Wheaties, the best breakfast food in the land."

When the company decided to invest in a nation-wide radio campaign: the sales skyrocketed.
The recall power of music in advertisements became standard, especially in the 1930s when Pepsi launched its own jingle on the radio: "Pepsi Cola Hits the Spot". The spot became so popular that it was a jukebox hit in 1941.

“Pepsi-Cola hits the spot / Twelve full ounces, that’s a lot / Twice as much for a nickel, too / Pepsi-Cola is the drink for you.”

The jingle was created by Austen Herbert Croom-Johnson and Alan Kent.

→ 1930s

As audiences desired more spoken words and less dancing, the 1930s were a period of enormous innovation for music in cinema. Composers were invited to provide creative music that would complement the piece's drama. This was crucial, since the technical demands of filming necessitated the use of highly conservative cameras and studio-bound actors. For the first time, musicians were also given the opportunity to operate independently from the rest of the crew. The ability to re-record and dub music and spoken lines in an editing suite became available, allowing films to be filmed without the need for an orchestra in the studio or on film.
One of the most famous audio logos for a film production company was recorded in 1928. Metro-Goldwyn-Mayer “hired” several different lions throughout the years to perform as main characters of their brand. But it wasn't until the 1930s that spectators began to actually hear the roaring of the lion. Before that, the logo was silent.

↙ [Fig. 11] Leo the lion, one of the several lions emplyed in MGM's visual identity through the years.

In the 1940s, one of the most famous films of the period was Disney's Fantasia. Mickey Mouse starred in this musical and animation extravaganza. Aside from its cultural significance for combining the best animation with fantastic music, it was also the first picture to have multichannel surround sound, which was recorded using live multitracking. The desire for sound events to follow the characters around the screen led to the development of surround sound, which gave the cinematic experience a new level of realism.

→ 1960s

It was exactly in 1960 that Alfred Hitchcock's 'Psycho' shower scene suddenly gave sound to the concept of suspense and fear. The visceral sensation of insecurity and tension that the track conveys is going to be remembered for a long time in our collective memory thanks to the ability to fully describe the moment.

↘ [Fig. 12] The most famous scene from Alferd Hitchcock's 1960 "Psycho".

> *"The use of just strings is a study in restraint, one that perfectly piques the audience's sense of suspense. The orchestra's sound is further reduced by the use of the sordino—or "mutes"—on the strings. This sound of muted strings holds back the emotion that a string orchestra would normally have without mutes.*
>
> *The quieter sound matches the tension on screen, starting with the prelude over the opening credits and continuing through the love tryst scene that opens the film. The effect is that of a strained voice that wants to scream, but which is held back, frustrated and restrained." (Gilmartin & Paris, 2021)*

→ 1970s

In 1971 Coca-Cola launched the most expensive ad in history (at that time) called "Hilltop" featuring the renowned jingle "I'd like to buy the world a Coke". The jingle goes:

> *"I'd like to buy the world a home and furnish it with love,*
> *Grow apple trees and honey bees, and snow white turtle doves.*
> *I'd like to teach the world to sing in perfect harmony,*
> *I'd like to buy the world a Coke and keep it company.*
> *It's the real thing, Coke is what the world wants today."*

It was first released as a radio ad on Feb. 12, 1971, and it gained immediate popularity. DJs immediately began receiving calls asking them to play the jingle, as if it were a song by The Doors or the Jackson 5. It was so popular, it began to affect the pop charts.

Given its popularity, the corporation decided to make a commercial for the jingle, hiring 500 people from Rome to lip-sync the lyrics on a hilltop in Manziana. They were unable to meet their initial budget of $100,000 due to rain and other delays, but the soda business was so confident in his idea that it eventually paid $250,000.
The company and its bottlers received more than 100,000 letters about it. (Andrews, 2016)

It's generally considered the world's most popular commercial.

↗ [Fig. 13] A scene from the Coca-Cola Hilltop Ad, shot in Italy in 1971.

→ 1980s

French radio guru Jean Pierre Baçelon coined the term 'la marque sonique' after archiving, analyzing and categorizing several radio commercials and concluding that ads with sound branding elements gained more recognition, success and sales.

→ 1994

> *"Intel's audio logo is melody driven. It's simple, but distinctive. Together with the logo, the melody drives home Intel's brand. The melody instrument itself is hard and sharp. You can hear it most clearly in the last four notes. This gives the audio logo weight, impact and power. A combination of layered sounds could also achieve this same effect – for example a synth, mallet and glockenspiel." (Behind the Audio Logo: Intel, 2017)*

The Windows 95 launch tune was composed by ambient pioneer Brian Eno - ironically on a Mac. It's perhaps his most-heard composition to date, despite being only six seconds long.

↖ [Fig. 14] The new intel logo from 2020.

↑ [Fig. 15] Windows 95 logo from 1995.

In the same year, Nokia releases their now-iconic ringtone, which was still monophonic at the time. Not everybody is aware that the short tune is an excerpt from a much longer (though still short) guitar piece by Spanish composer and guitarist Francisco Tárrega called “Gran Vals”.

↙ [Fig. 16] A Nokia 1011 poster in Finnish.

→ 2002

Steven Spielberg's film 'Minority Report' depicts a high-tech future scenario, a world where individualized branding messages are broadcast to pedestrians via directional ultrasonic speakers using facial recognition software. Technology is rapidly approaching maturity toward a dystopian scenario like this one, making the situation of hyper-local aural marketing much more likely. Hyper-personalized audible advertisement can soon become a reality. Are we ready for it?

→ 2003

In 2003 fast-food giant McDonald's launches its first-ever ad campaign. They pitched the ideas to 14 ad agencies, and after a fair amount of competition they chose to go with a tiny Munich-based firm, Heye & Partner. They came up with a campaign idea called: "I'm lovin' it".

> *"Music was planned to be a big part of the campaign, and so, with the help of the Mona Davis music company, the legendary jingle was born: "ba da ba ba ba."Although in recent years, Pusha T has claimed to have created the jingle, the actual origin was said to be from one of the back-up singers at Mona Davis. However, Pusha T did indeed participate in the music campaign launched by McDonald's. Most famously, this campaign also included Justin Timberlake's hit single, "I'm Lovin' It." (Mokoena, 2020)*

↘ [Fig. 17] A photoshopped billboard adv that hints to the famous McDonald's audio logo.

From the mid-2000s onwards, digitization has accelerated the influence of media innovation: we've seen the rise of smartphones, the emergence of social networks, the first voice assistants, and the introduction of music streaming platforms into millions of people's lives. As a result, a chasm has emerged in the previous decade between advertising's content and the public's real engagement with businesses when it comes to products, services, and experiences. Today, sonic branding aims to close this gap by giving consumers more than simply a catchy jingle, but also a powerful emotional charge and a consistent experience throughout a brand's customer journey.

↙ [Fig. 18] Pentagram's new visual identity for mastercard at a skiing event.

→ 2019

Times are more than mature to introduce to the world one of the most articulated and most marketed sonic identities of all times: Mastercard. It spans across all media, touchpoints, points of sales, and even custom singles from artists around the world. The effort to render consistency while delivering cultural relevance in different regions of the world thanks to music adaptations and edits, quite impressive.
Mastercard has been considered one of the north stars of music branding in recent times.

The brief timeline of events tries to condense years of music challenges and technological advancement that brought us to one of the most promising times for music branding and sonic identities. The relentless invasion of the media in the consumer ecosystem, plus the technological advancements made in each and every field of music and advertising and market maturity are the perfect conditions for new and holistic corporate music identities.

2.4 Creating a Sonic Identity

Keywords: brand audit; stakeholder interviews; creative briefing sonic DNA; audible touchpoints; brand theme; sonic assets; customer experience.

As consumers, we are mostly used to the idea of seeing and interacting with a brand on a visual level. We certainly ask ourselves or others if we can recall how a specific brand looks, but almost none of us ever think about what a brand sounds like.

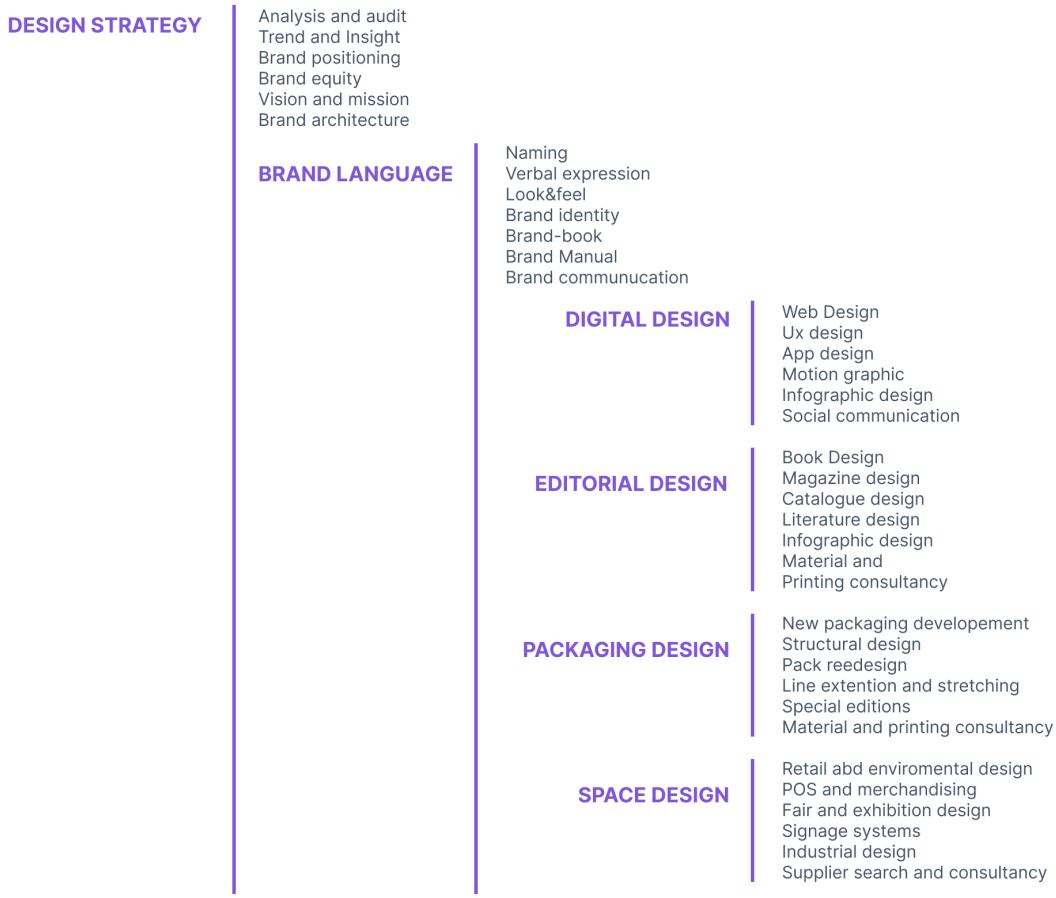
In reality, what makes a brand unique resides in all of the senses it can reach. The combination of visual and auditory cues, in our case, is essential to the definition and recall of a specific brand.

↘ [Fig. 19] Blind test for the recognition of the world's famous logo signatures. Experiment carried out at Politecnico di Milano.

During a preliminary study on music branding in 2017 at Politecnico di Milano (as already anticipated in paragraph 1.4) I was lucky enough to test sonic identity recognizability of some brands. On that occasion, I was surprised by how many of the auditory cues were not recognized.

Sound identities didn't connect with the subjects of my test. This very small example of the power of music in branding made me ask the following question: how do you create a sonic identity? And above all, what is the secret of its success? Is it in the process of making it? Is it in repetition and how many times have you been exposed to it?

↙ [Fig. 20] Task analysis in the definition of a new brand from a variety of different design perspectives. (Carmi & Ubertis)



All of these questions will be explored in this paragraph.
In the audio branding industry, every player has its own process and its own words to describe it.

It is safe to say that most of the processes that we are going to analyze in the following pages, draw directly from the visual branding process.

In 2009, Carmi & Ubertis (Carmi, 2009) proposed their approach to branding that is composed of five steps:

1. Observation: Brand knowledge acquisition and analysis of results, that is preparatory to the strategy development.

a. Brand audit
b. Brand perception
c. Communication analysis
d. Trend analysis
e. Market and competition analysis
f. Target audience analysis

2. Construction: Based on the information obtained during the analysis, brand strategy development.
Positioning

a. Positioning
b. Values and brand personality
c. Vision and Mission
d. Distinctiveness
e. Promise
f. Brand Architecture
g. Development journey

3. Expression: Analysis and study of the strategic inputs for the development of the identity

a. Verbal Strategy

    i. Development of a verbal identity of the brand in line with business strategy and communication
    ii. Naming
    iii. Language
    iv. Linguistic register
    v. Tone of voice

b. Visual Strategy

    i. Development of a visual identity of the brand in line with business strategy and communi-

cation. There are three main aspects in the construction of the visual identity:

ii. Brand identity
iii. Look & Feel
iv. Communication Guidelines

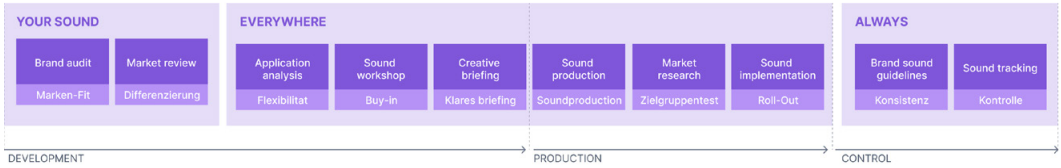
4. Design: Translation of the strategic inputs and implementation of a consistent and distinctive identity system, characterized on the various channels.

5. Governance: Cooperation with the customer in the brand management process in its various forms and communication coordination over time.

a. Sharing
b. Assistance
c. Development

Since this process is quite complex and very much tailored to the needs of a visual identity, it is clear that companies, through years of innovation and development of the practice, have changed and remodeled it after the needs of the market and specific client's needs.

↙ [Fig. 21] Groves' music branding process.



Therefore, thanks to desk research and interviews with key players in the industry, I am now able to present three different defined processes for creating a sonic identity.

The first one comes from John Groves, founder of Groves Music Production. The process is branded as "Your Sound. Everywhere. Always"

In Commusication: From Pavlov's Dog to Sound Branding (Groves, 2011), the author proposes an initial phase of brand audit in which stakeholders and the consultancy can understand where the brand is positioned and what are the key values, translated into adjectives and words, that could potentially describe the brand itself. Then a market review establishes the open opportunities for the brand to differentiate itself from competition. The application analysis process defines what touchpoints the sonic identity could be applied to; thanks to

the workshop, expectations are set and managed and initial sonic mood boards are drafted in an inclusive co-ideation process. This guarantees the involvement of the client in the decision-making process from the very beginning. The creative briefing generates clear instructions for music designers and producers involved in the creation of the sonic identity. Everything takes shape when music is actually produced and, right after that, it goes into market research to better understand how the public/consumer is going to react to it. When the sonic identity is about to be implemented, brand sound guidelines are delivered to the client who is then going to either track their KPI (Key Performance Indicator) through third-party trackers or not.

The second music branding process comes from the German-based Why Do Birds. In an interview with Sebastian Jautschus, Junior Sound Strategist at the company, he explains what their process looks like and what are the key steps for a successful sonic identity.

In the view of the company, there are 4 steps: Analysis, Workshop, Conceptualization and Production, Deployment and Presentation.

The first step would require the analysis of the status quo. Getting all the information about corporate branding, brand guidelines, social media presence and so forth.

Sebastian describes part of the process as follows:

> *"What we do, most of the time, is to download all of their Youtube, Vimeo or Instagram videos, all of their podcasts, all of their audible assets and then we analyze everything. [...] Sometimes it feels like it is too much to analyze, especially with big companies, there is too much stuff out there and there is no possible way to make sense out of it, but you will always get to the point where you understand what their problem is. At that point you have concrete steps you can recommend." (S. Jautschus, personal communication, January 25, 2022)*

The Second step is getting into a room with the client and having a workshop. The purpose of the session would be two-fold. First to align on musical terminology and description of their brand in branding and musical terms. Secondly,

it would serve as a co-ideation session in which the client and the consultancy can give a rough idea of what the brand should sound like. Sometimes this can be challenging, because describing music is not that easy.

> *"The client could say: "I feel this is very technical" and someone else could say "No, this is very cold and inhumane to me", but someone else could say: "Didn't you hear the offbeat hi-hats that were very humanizing the track?". You start to understand how they experience music and try to, from there on, speak their language, get on their definition of different terminologies." (Ibid.)*

The third step is conceptualization. It is the time where everything comes together and the consultancy starts to envision what the brand could sound like.

> *"We do creative brainstorming together with the musicians in Why do birds, without the client. We are super free to explore different possibilities that could allow us to translate this information into music." (Ibid.)*

Concluding with the creation of sonic assets, deployment, development of sound guidelines and presentation to the client:

> *"The fourth step is making the music. You send off your producers and composers on different tasks. One could be doing an exploration into how a project could sound with synthesizers and another one is doing the same thing but for piano. After the explorations we come together, we try to mix it all together. In the end, you have to come up with the perfect way to tell the story." (Ibid.)*

For Why Do Birds? the key ingredient for a successful sonic identity is storytelling. This ties everything together and makes the translation of the visual identity into sound much more credible and acceptable from the customer. In fact, if the correspondence between visual and sound is off, then brand perception can easily lose its strength.

The last branding process taken into consideration for this dissertation comes from the sonic agency Massive Music. Thanks to an accurate re-work of their previous nine-steps long process, Massive Music -and in particular its Global Creative Strategy Director Roscoe Williamson- is able to provide a simple three-step audio branding process.

1. Research & Strategy
2. Production & Testing
3. Implementation, Governance & Partnership

In the first phase, there is an opportunity to get to know the brand and understand the opportunities of sound and voice for the brand itself. Massive Music introduces stakeholder interviews in the research approach. These are very important to really get a sense of what the company is about and what real values they stand for. Competitive analysis is helpful for cherry picking interesting ideas from brands in the same realm. Lastly, the need to think about what is next and not get stuck -from the beginning- with an identity that does not have a long-term outlook.In this phase, it is essential not to: allow subjectivity to bias, exclude partners and decision makers and omit mood boarding.

The second phase focuses on production. The first things to consider are ideas around the sonic logo and ideas around the sonic DNA, because everything builds out from that system. Therefore, it is essential to work iteratively, with a variety of different talents and, above all, work iteratively. Never forget that you are about to build a system, that it will need to be unique and that the sound you are about to create has to be linked back directly to the brand idea.
The third and last phase is rollout. For this last stage of the sonic identity process, it is key to educate both the client on how to use the assets you have provided, it is key to create excitement around the implementation of the sonic assets and it is key that you make sure to appoint someone inside the company as a “guardian” of the work that the creative agency has delivered in order for it to be promoted and used internally. It is also fairly important to keep in mind that people aren't just going to start using the assets because someone delivered them, therefore, the creative agency work is also to keep a good relationship with the client for future partnerships, track KPIs and be available for further expansion and guidance in the usage of sonic assets.

It is true that every creative agency and consultancy approaches the creation of an auditory identity in a slightly different way, but it is also true that the majority of them share the same core. Groves' process is fairly articulated, Why Do Birds is a very practical four step approach and Massive Music tried to condense everything in three steps. Nonetheless, the three pillars for designing any kind of identity, whether it is

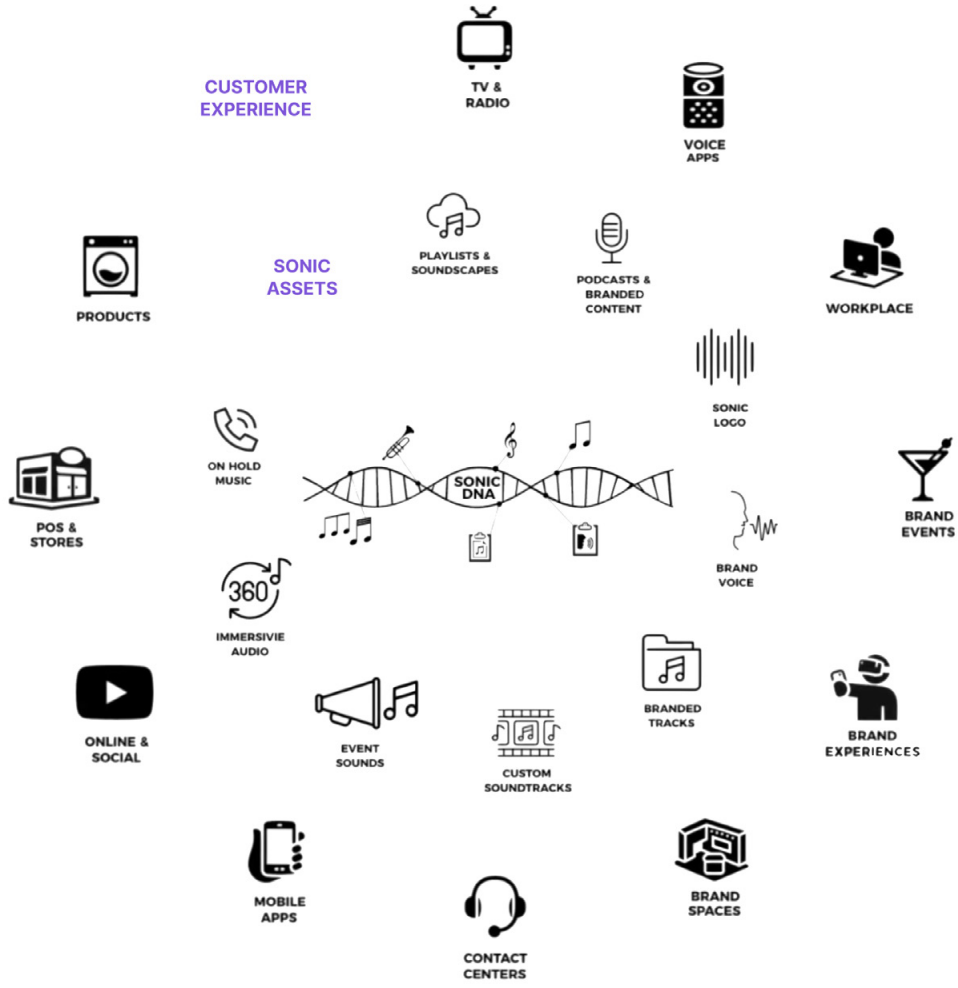
visual or auditory, are still the same: research, production and delivery.

> *It is true that every creative agency and consultancy approaches the creation of an auditory identity in a slightly different way, but it is also true that the majority of them share the same core. Groves' process is fairly articulated, Why Do Birds is a very practical four step approach and Massive Music tried to condense everything in three steps.*

↙ [Fig. 22] Colgate's sonic system created by MassiveMusic.

When considering specifically the music production segment of the entire process, it can be useful to have a general idea of what the process looks like and what touchpoints the agency usually designs for.

As previously expressed, areas of interest for a sonic identity are identified with the terminology "audible touchpoints". (Sonic Branding at Amp — Amp Sound Branding)



↗ [Fig. 23] AMP's sonic assets and audible touchpoints.

The process usually starts with the creation of a brand theme or Sonic DNA (amp's terminology). With the brand theme in mind, starts the creation of the audio logo (also known as music logo, mogo, sogo and audio trademark). There could be several variations of the audio logo, depending on the project and the application on different media. Shorter versions of the audio logo or brand theme can be implemented as product sounds, UI sounds in digital applications or startup sounds for physical products. The longest versions of a brand theme can include music scores for corporate films, advertisements and/or events, all with different mood variations to adapt to the needs of the event.

The creation of sonic assets can vary project by project. Most of the time, this is the list of musical creations that a company like AMP can produce for a client's engagement:

1. Sonic logo
2. Brand voice
3. Branded tracks
4. Custom soundtracks
5. Event sounds (including music for going on stage, gongs, alerts and public announcements)
6. Immersive 360º audio experiences
7. On-hold music
8. Playlists & soundscapes
9. Podcasts and branded content

These are then deployed on several touchpoints to which customers from all over the world connect to. These can include, but are not limited to:

1. TV & radio
2. Voice apps
3. Workplace
4. Brand events
5. Brand experiences
6. Brand spaces
7. Contact centers
8. Mobile apps
9. Online & social
10. POS & stores
11. Products

Here is a glossary of the most important elements of music branding.

Sonic logo: sound logos, sogos, mogos, music logos or audio trademarks are frequently used in conjunction with graphical corporate brand logos. Because it serves as a mnemonic device, a sonic logo may assist clients in remembering the brand name more quickly. Rather than following established advertising models, the development of sound logos is guided by intuition. Variations of sonic logos can be present in UI sound on mobile applications or sound stamps (a very condensed version of a sonic logo)

In *The sound of brands* (Nufer, 2019, 6) the author further explains what are the four important factors in the creation of

a sound logo:

1. A few-tone sonic logo is recalled faster. The willingness-to-pay of customers is at the highest with a 6-tone-sound logo.

2. A sonic logo is usually between one and three seconds long. The sonic logo is concise in its form.

3. A successful sound logo is flexible and adaptable to different surroundings (televi- sion, telephone, Internet, etc.) and different instruments.

4. Customers should unmistakably match the sound logo to the designated brand. The sound logo must differ from the competitors.

Brand theme (or brand anthem): for each brand, a whole musical composition can be employed. This musical composition is then included into the complete corporate sound design, and customers will remember the brand because of the song. There is a clear link between the song and the brand. There are two characteristics of brand songs that can occur:

1. Ordinary songs are written to be broadcast on radio stations without any connection to a company or brand. Then, the most popular tunes are then chosen for corporate use. The music is integrated into the company's audio branding strategy and communicated to customers. When a customer recognizes the link between the brand and the musical composition, every time the song is played on the radio, the company receives free advertising.

2. The exclusive production of a song for a brand is the other type. The company benefits from the song's unique use and direct connection to the audio branding aspects.

Branded tracks: starting from the brand theme, music branding agencies usually adapt the core melody to the different purposes and media the company needs to use the sonic identity to. Different branded tracks are usually described with various adjectives, some of the most used are: corporate, dynamic, sportive, joyful, techy, dramatic. Each of these

adjectives would be associated with a variation of the brand theme adapted to the mood the track needs to convey and deployed across several multimedia touchpoints. (from Corporate films to Social media content)

Brand voice: sometimes corporations decide to tie a voice-over artists to their brand. The power of the voice must not be underestimated! Listeners naturally decode the voice for emotions and information, so a single brand voice has an impact on the brand. The listeners' interpretation of the brand voice has a big impact on how the brand is positioned. Furthermore, it is critical to choose a voice that is consistent with the overall brand values.

↙ [Fig. 24] King Abdulaziz Center for World Culture - Ithra in Saudi Arabia.

I would like to conclude this paragraph by bringing to the reader a few examples of real-world sonic experiences that are not to be considered in the typical realm of sonic assets. The first one was an ask to Massive Music to put in music an entire Saudi Arabia metal building.

> *"We did a project for a building in Saudi Arabia called Ithra. This incredible building is in the middle of the desert and it is clouded with metal piping...and this is one of the maddest briefs we have ever gotten from a client so far. This is because we were asked to make a sonic brand for the experience of the building and we had to think about every element of the construction of the building in order to analyze where sound could play a role. It was such a lovely group of clients, an amazing building and a mad experience. This one really stands out." (R.Williamson, personal communication, February 23, 2022)*

The second would be designing the sound of an electric car:

> *"We designed the engine sound of the new SEAT electric cars. It is very crazy to be able to think about how cities will sound in the future and being able to be part of that. With electric cars, you have the possibility to design the sound of the car even though you still have to comply with regulations. You have to communicate that a car is approaching in order for blind people to understand, but the way you do it is not really defined, on the contrary, it is very open! There are so many possibilities for companies to brand their sounds. It's getting a bit sci-fi! It was a very interesting project: how do you communicate how fast you are going with a car through sound?" (S. Jautschus, personal communication, January 25, 2022)*

This has been a journey into the different music branding processes of some of the most prominent music branding consultancies in the world. Many more practical questions on the implementation and creation of a sonic identity have been asked directly to the interviewees and this can be found in Chapter 5: Interviewing the Experts.

2.5 A new era for sonic identities: music branding 2.0

Keywords: sonic branding 2.0; Matercard; Siemens Helthineers; Geberit; Storytel; Audi; Colgate; taxonomy; creation date; industry; audible touchpoints.

It is frankly impressive to notice how rapidly music branding has been changing in the past decade. The conception of

today's sonic identity is fairly new and it could mark a new chapter in the history of this practice. The ‘new wave' of sonic identities (end of 2010s and beginning of 2020s) is referred to as Sonic Branding 2.0 by Roscoe Williamson from Massive Music or music branding 2.0 in this dissertation.

Sonic Branding 2.0 goes beyond the sonic logo and into a whole range of different applications. It is a holistic approach to how brands use music, sound, and voice over a range of touchpoints.

This is what this thesis is most interested in: the power of a holistic approach to corporate music branding. There are several similarities between the evolution of the process of visual branding related to the evolution of music branding.

When the branding practice really took off in the early 1910s with AEG, it was considered to be the application of the brand mark on different products of the same corporation. It was a distinctive feature for sure, but it didn't encompass the entirety of the brand in the world. After a century, we are now aware of how articulated the visual guidelines of a brand can be. A holistic approach to a brand's visual identity.

What we are witnessing today in the music branding industry, the shift towards a more holistic approach to the whole matter, is exactly the same idea process that visual branding went through and keeps going through nowadays. This is happening and it is confirmed by industry key opinion leaders. When asking one KOL to confirm this, he stated:

> *“We have definitely seen the first holistic music branding projects ever in the last decade and I would say that this audio branding gets more holistic with every day that passes. This is the most likely direction. The audible touch points increase more and more as time passes. We have so many touch points nowadays, I cannot even remember all of them. It obviously differs from client to client: Siemens Heathnieers differs from Ferrari.I just did a project for The German Federation of the Blind and Partially Sighted (DBSV) in Germany. They for sure have different touch points than other brands. For instance, they have the stoplights' sound they pay attention to...” (S. Jautschus, personal communication, January 25, 2022)*

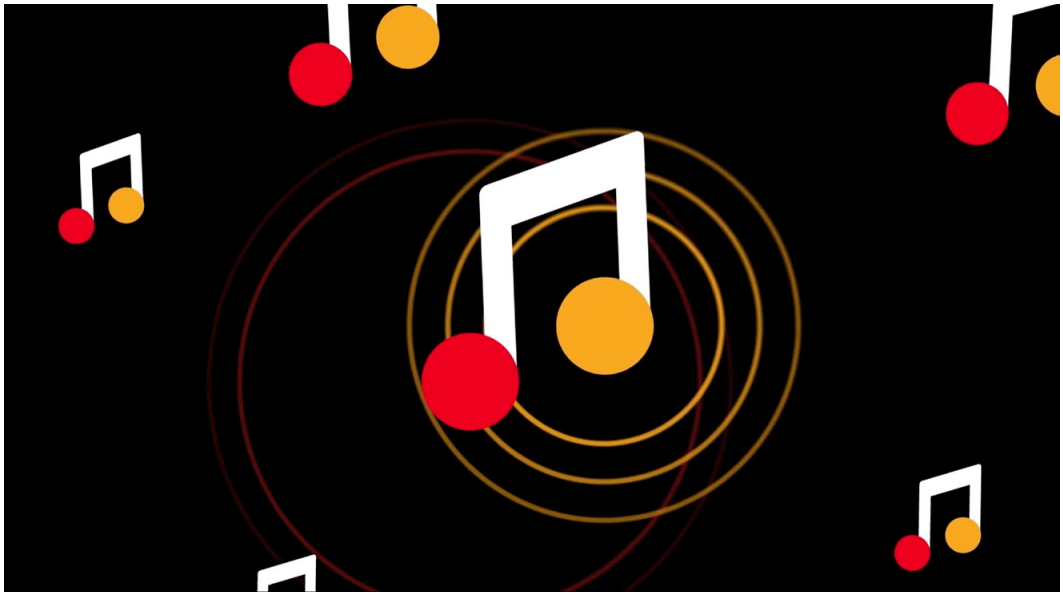
But in order to fully grasp the reach of this complete trans-

formation, it is worth considering some of the most notable case studies of the last few years. They for sure demarcate a turning point for the entire industry standards and the future of the practice.

2.5.1 Mastercard

Mastercard is a technology company that connects consumers, financial institutions, merchants, governments & businesses worldwide. They operate the world's fastest payments processing network, linking consumers and businesses in more than 210 countries and territories. Mastercard products and solutions make everyday commerce activities – such as shopping, traveling, running a business and managing finances – easier, more secure and more efficient for everyone.

↘ [Fig. 25] A screeshot from Mastercard's new sonic identity presentation video.



On February 8 2019, Mastercad debuted their sonic brand. Described as the sound equivalent of their iconic red and yellow circle, the unique melody aims at reinforcing the brand every time a consumer interacts with it.

The sound of Mastercard starts from a core melody, a brand theme that is the foundation of the entire sonic brand architecture.

It adapts locally and globally with a very large number of adaptations and variations that ensure local relevance. The different variations of the core melody borrow their title from the city of the country/region they were adapted to.

↙ [Fig. 26] A screenshot from Mastercard's See life through a different lens event at the Biennale di Venezia.

Bogotà is the sonic adaptation for Latin America. The rich use of congas and trumpets and acoustic guitars ensures that the sound of Mastercard stays relevant to the musical culture of Latin America. In this specific case, the theme borrows a lot from classic Salsa music, with its distinctive and unique syncopated rhythms.

Mumbai delivers incredible sounds and melodies directly linked to the Indian region. The melody is performed in its entirety by a sitar and hand percussion following the calm rhythm of traditional sitar music derived directly from India. Music and percussion blend together and bring the user on a journey in the eastern region.

Dubai, is the adaptation for middle-east countries. Given the uniqueness of the region and the fast developing pace that Dubai and other cities embody in their growth process, the melody blends traditional string instruments with modern synthetic beats that make the listener envision the future of

the cities in that specific region.

Cape Town is the adaptation for African countries that are rapidly growing and adapting to different challenges while maintaining their cultural identity. Marimba sounds, fast beats, African percussion instruments (bongos and other skin drums) combined with deep bass male vocal harmonizations (drawn from tribal chants) make it the perfect fit for reflecting one continent's identity and people's roots.

↘ [Fig. 27] Nadin Randle at a Mastercard premiere event for their first even music single performed by the singer.

Other declinations of the brand theme have been developed to better be used in specific media and artifacts. These include, but are not limited to:

Operatic, an intrinsic bond between a beautiful female opera voice and pizzicato strings to express to the fullness a solemn, theatrical and elegant event. A delicate reinterpretation of the core melody with a human presence that starts gently and subsequently grows into a call and response full choir opera performance.

Playful, a childish-like, upbeat and synthetic interpretation of the Mastercard core melody that excites and adapts to more mondaine occasions. Snaps and synths and digital snares are used to describe a fun and playful world in which Mastercard will serve as a key enabler for the experience.

Cinematic, starts out big with a full set of brass and big orchestral percussion to immerse the listener in the world of big performances and epic experiences! Then the track modulates and delivers even higher expectations to the listener by also including a human touch with multiple backup vocals.

There are tons of different adaptations and sonic assets already employed in Mastercard's enormous amount of digital and physical content. Their sonic identity, in fact, does not end here. Mastercard is the first payment company to develop an acceptance sound at the Point of Sale. With approximately 8 million payment touchpoints where the sonic melody can be heard, it comes as no surprise that they decided to go with a declination of the core melody.

Not only that, but as the identity grew and spread across all media applications in 2019, the next year Mastercard decided to release multiple artistic collaborations with musicians from all around the world, including the brand's first ever music single performed by Nadine Randle and produced by Niclas Molinder. It's called Merry Go Round and delivers the latest evolution in sonic brand identity, redefining how people interact with the brand. [Fig. 27]

Mastercard positions itself as the global benchmark for sonic branding because of its completeness and effort in delivering consistency across regions and assets.

It is quite impressive to go through the company's assets in different regions of the world and find ever changing variations of the same musical theme.
In fact, amp sound branding - the consultancy behind the sound of Matercard - delivered 200 unique sonic assets in 24 months (The Sound of Mastercard — Amp Sound Branding, 2021) and made them play in 120 countries simultaneously.

Here's how it is described in Super Sonic Logos: The Power of Audio Branding

"Destined to be classic but too early to be considered for the best of all time, the next chapter of sonic strategy and logos has to be Mastercard. The press release sounded the charge....
Setting a new tempo for brand expression, Mastercard debuts its sonic brand identity, a comprehensive sound architecture that signifies the latest advancement for the brand. Wherever consumers engage with Mastercard across the globe—be it physical, digital or voice environments—the distinct and memorable Mastercard melody will provide simple, seamless familiarity."(Allan, 2021, 117)

2.5.2 Siemens Healthineers

Siemens Healthnieers is a leading global medical technology company with over 170 years of experience and 18,000 patents globally. With their innovative products and services, they support the customers in achieving their business goals. They have a wide range of products and services for diagnostics, therapy and healthcare IT.

↘ [Fig. 28] Siemens Healthineers' headquarters in Erlangen, Germany.

"As part of their strategy for 2025, Siemens Healthineers wanted to move from the healthcare segment to the medtech segment. This also meant a shift to a high value, premium positioning. A holistic rebranding process, including an audio expression for the brand, needed to be developed.

> *The new visual brand design has a strong impact on the perception of the Siemens Healthineers brand. A sound was sought that would best translate this design." (Siemens Healthineers – Audio Branding)*

Embarking on a unique journey with the German music branding consultancy Why Do Birds?, Siemens Healthnieers now sounds like a medtech company.

This project is particularly insightful in terms of translating visuals into audio. Starting from the description of the company values, Why Do Birds? was able to translate the following personality adjectives into sound elements that laid the foundation for the whole system: visionary, intelligent, responsible, inspiring, energetic and active. From there, they started from the new visual identity in order to translate it into sound by keeping in mind the musical descriptive adjectives identified earlier. [Fig. 29]

↙ [Fig. 29] Siemens Healthineers' logo.

The dot matrix that is part of the brand logo was translated into a forward moving triplet beat, [Fig. 30] the wordmark was pictured on a piano and each letter that corresponded to a musical note was played and recorded. The letters that weren't related to a specific musical note were transformed into a digital heartbeat. Putting all of this together, the sound logo was derived.

↙ [Fig. 30] Forward moving triplet bear from Why do Birds case study.

Another interesting element of this identity is the dot pulse. It is an attention grabbing sound that element that embeds the Fibonacci sequence into a very peculiar low-to-high and high-to-low music scale system.

Then a full package for events was developed, including music for going on stage, gongs, PA and event soundscape. Other sonic assets were also developed, such as ringtones and a very peculiar package for Health music destined to be used with medical devices across the globe. And, for the first time, Why Do Birds? also innovated the delivery process by creating ad-hoc software for the company.

> *"A complete technological innovation was the introduction of an easy-to-use software that allows employees to produce their own on-brand soundtracks, ensuring consistency and brand recognition." (Siemens Healthineers – Audio Branding)*

Siemens Healthineers is another example of a well-rounded, holistic music branding 2.0 process that ensures recognizability and goes beyond the classic advertising music by solving real challenges for the brand and its applications.

2.5.3 Geberit

Geberit is a Swiss company that manufactures and sells sanitary products. The company was founded in 1869 and is headquartered in Jona, Switzerland. Geberit has over 9,000 employees, and it operates in over 40 countries. The company's products include toilets, sinks, showers, and other bathroom fixtures.

In 2020, Geberit decided to embark on a transformation journey and started thinking about the sound of the brand. They asked AMP sound branding to give a voice to their business.

The company started with the creation of an original music composition, the brand's theme, titled Water (You Make Me Feel Home) and performed by Fume & Comette.

This track embodies the essence of the brand, feeling like home, at ease, with the perfect bathroom experience.

The sound logo of the Geberit Group has a fascinating origin and it tells the story of evolution. AMP recorded sounds inside the Geberit test laboratories and embedded them into the sound identity. The key of this concept was to connect the brand directly to their products.

↖ [Fig. 31] Geberit's showroom at event.

Starting from the core melody of Water (You Make Me Feel Home) they extracted the 4 key melody notes and fused them together with the Geberit aura sound, precision machinery sound and water flushing down the toilet. Although the perception of this peculiar sound might be attenuated by mixing, it still conveys the perfect bathroom experience.

From there, Geberit expanded and adapted their core melody to every piece of advertisement and corporate video they could find.

In May of 2020, Geberit released their corporate movie. It had strong rhythms and an energetic feel to it while maintaining the classical “You make me feel harmony”.

Other adaptations across campaigns and corporate material continue to be deployed every now and then, making full use of the corporate sound that now reflects the brand.

In total AMP created:

- 49 Sonic Assets
- 5 moods and styles
- 26 campaigns (TV & Online)
- 419 Audio Construction Kit clips
- More than 1500 compiled tracks

(*The Sound of Geberit — Amp Sound Branding*)

↗ [Fig. 32] Geberit's audio logo explained: core melody, brand soundscape and products sounds are fused together to form the new audio signature.

2.5.4 Storytel

Storytel is a Swedish audiobook and ebook publishing company founded in 2003. The company offers a subscription-based service in which customers can listen to audiobooks and read ebooks on their mobile phones.

Storytel's aesthetic profile was refreshed in 2019 and a new tone in the brand's expression was established. Because music branding is such a valuable service, it was an obvious next step in the branding process. A major problem awaited: how could Storytel design an audio branding universe that would express the business and its service while also working globally, given the diversity of cultures, languages, and music? Lexter (now Efterklang) returned to the heart of the matter: the stories.

Humans have been telling stories for thousands of years. People are linked by stories across generations and cultures. And, while written stories have existed for a long time, oral stories have existed far longer. Efterklang started listening to the stories and voices in Storytel's large audiobook library, and noticed something else among all the amazing stories. To their ears, the voices were like music.

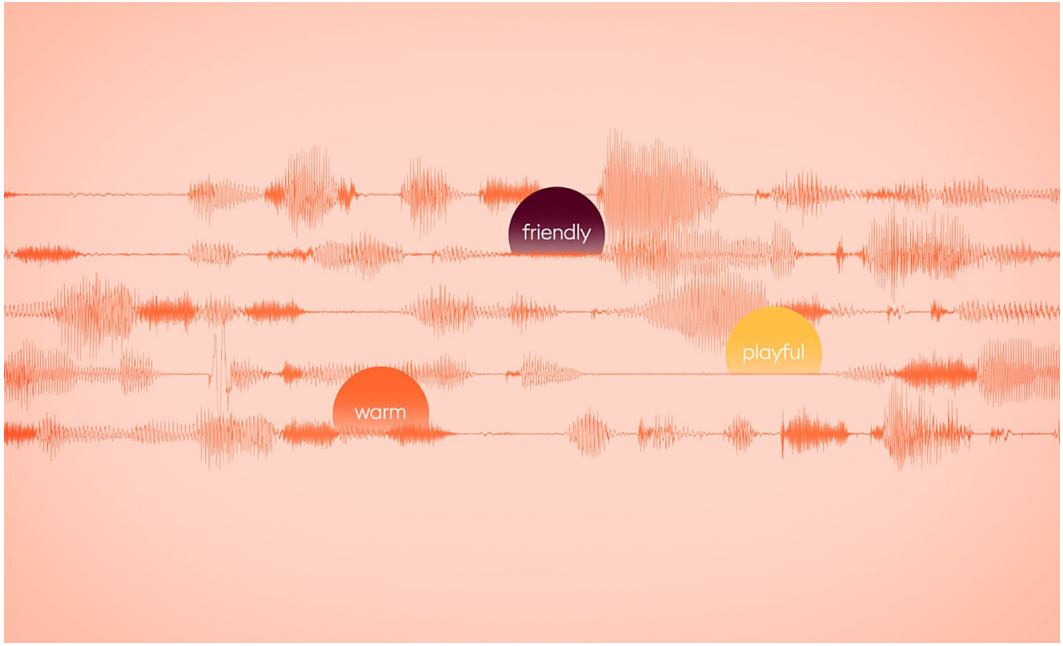
↖ [Fig. 33] Storytel's visualization of their new sonic identity.

Efterklang began collecting and composing musical building blocks based on the narrator's voices and stories found in Storytel's vast audiobook archive. They intended to represent these nuances using the building blocks, just like Storytel has a warm, playful, and inviting brand identity among many other attributes. They could make synthetic musical instruments out of voices by stacking and processing them in various ways. Warm synth pads and whistling were made by extending, adjusting, and filtering the voices. The result produced friendly, lovely choirs by granularizing the vocals. A "dooh-like" choir sound was developed that could play whimsical tunes by layering individual stories together.

They began to construct the sound of the brand -the Storytel audio universe– with nothing but the recorded voices of Storytel's audiobook narrators. A soundscape of sound effects, instruments, one-of-a-kind noises, and logos based solely on voices, linking people from many languages, cultures, and eras around the world. All of this was put into a digital audio branding platform, complete with all of the unique sounds and logos, as well as special synthesizer patches, so Storytel could make fresh audio branded music anytime they needed it. The audio universe is a versatile brand building tool that may be used in a variety of marketing platforms. The Storytel audio universe debuted in April 2020 and has already been used in a number of commercials and audiobooks, ensuring

↘ [Fig. 34] Storytel's brand values immersed in the world of voice and narration.

that a uniform audio brand is presented and conveyed all over the world.



2.5.5 Audi

Audi is a German automobile manufacturer that produces luxury vehicles. The company was founded in 1937 by August Horch and has been headquartered in Ingolstadt, Bavaria, since its inception. Audi is the world's second largest luxury carmaker and has sold over 250,000 luxury cars in the United States since 1995.

In 2021, Audi decided to invest internally in expanding the original audio logo (the Audi Heartbeat) into a full-scale corporate holistic sonic identity.

Audi Corporate Sound is interesting and goes under your skin because it is emotional and touching. This bridges the gap between the Audi brand and the recipient.
The compositions are uncommon and engaging, and they give the impression of being an intensive experience. A unique blend of styles and inventive instrumentation are unmistakable prerequisites.

The Audi Heartbeat emphasizes the brand's underlying value

of "Vorsprung durch Technik" or “Progress through Technology” and makes progressiveness audible. All audiovisual works are closely linked to the animated trademark, TV commercials ending for example, have the Audi heartbeat. As the basis of Audi's acoustic identity in purely audio-based media, it reflects the central brand aspect and gives the brand a globally recognized sound.

The Audi Heartbeat is based on the heartbeat of a real person. The pulse is an audio trademark that has long been connected with Audi and expresses the brand's emotive essence. It's supplemented by Audi Sound Studio instruments, resulting in the unmistakable Audi Heartbeat.

↙ [Fig. 35] Futuristic Audi showroom.

The company also created a series of music tracks or scores to be used in every kind of media application. The Audi Scores are pieces of music composed particularly for Audi in the Brand Music Pool. The downloads range in length from 90 to 180 seconds and span a wide range of moods. Audi Scores can be used to integrate short bursts of the Audi sound into communication activities like film soundtracks, sound presentations, and so on.

They include the following tracks and moods:

1. **Relaxation**: Versatile score with driving passages. Composition with classical and electronic instruments

2. **Flying Bird**: Lively optimistic score. Reduced instrumentation, focus on pizzicato viola and brand piano

3. **Berlin**: Varied exciting scores with dynamic beat sequences and calmer, smooth passages. Use of pattern and arpeggio elements

4. **Boston**: Reduced score with driving string elements. Pattern composition elements. Instrumentation focus: strings and brand piano

5. **Hamburg**: Minimal, inspired score. Modern, light, pure

6. **Freestyle**: Modern electronic score

7. **Fusion**: Pulsing, driving score. Positive, moving impression using warm bass sounds and electronic beats. Electronic and acoustic instruments are combined in a harmonious and progressive way.

“The Audi Brand Voice is defined by Audi's brand personality. The voice is male and is taken from the brand's core claim "Vorsprung durch Technik". It makes the brand recognisable and acts as a form of quality assurance. The Audi Brand Voice is designed for all communication channels – such as TV and cinema advertising, brand films, radio commercials, online or trade fairs. It is used when what is being said is intended to convey the personality of the brand and should always be used when it is clear that "The Audi brand is speaking".

The Audi Brand Voice is characterized as follows:
Gender: male
Age range: 35–45
Pitch: medium to deep, trained voice, authentic and self-confident, no dialect”
(*Audi Corporate Sound*)

Other general applications have been developed, such as ringtones, and the brand also has a wide collection of car sounds divided by model.

2.5.6 Colgate

Colgate is a multinational toothpaste company, with operations in over 180 countries. The company produces a wide range of toothpaste products, including toothpastes, oral care products, and dental floss. Colgate is one of the world's leading toothpaste brands, with a market share of approximately 25%.

↙ [Fig. 36] Colgate's recyclable toothpaste tube.

Colgate connected with Massive Music in 2020 with the idea of creating a new sonic identity. The music branding agency was faced with three main tasks:

1. Create consistency across all the regions in which the brand operates, but allow for flexibility in order to adapt to specific regional needs.

2. Feature a simple system that could easily be understood and used by creative and production teams from all around the globe.

3. Capture optimism and make it the main thread throughout the brand's sonic identity.

In order to tackle these challenges, the company turned to science. What is the science behind the universal sound of optimism? Since Colgate is a brand used by millions, they wanted its sonic brand to be culturally and regionally agnostic, something understandable in any country. Through research, they found that certain types of humming are universally accepted as a human expression of optimism and wellbeing.

↘ [Fig. 37] Colgate's sonic ecosystem by MassiveMusic.

The important discovery allowed Massive Music to base the sonic identity on that specific building block.

The D major key is widely accepted as very optimistic, so the whole identity is musically based on that note.
Considering Colgate's rich history of over two hundred years, Massive Music developed a suite of sonic assets and compositions to be heard on all brand communications worldwide in more than 200 markets.

Recently, Colgate launched several campaigns, one of which is “Choose Optimism” that is fully centered on the core value of the brand. The scores used in the 30s video content

worldwide are a perfect fit for the story of optimism that the brand is trying to tell.

Their study guided the direction of musical ingredients such as strong beats, shocks, bright noises, and startling moments for an overarching approach to the Colgate brand sound. It also ensured that the fundamental sonic DNA was adaptable and flexible enough to work across a variety of styles and music genres while remaining distinctly Colgate.

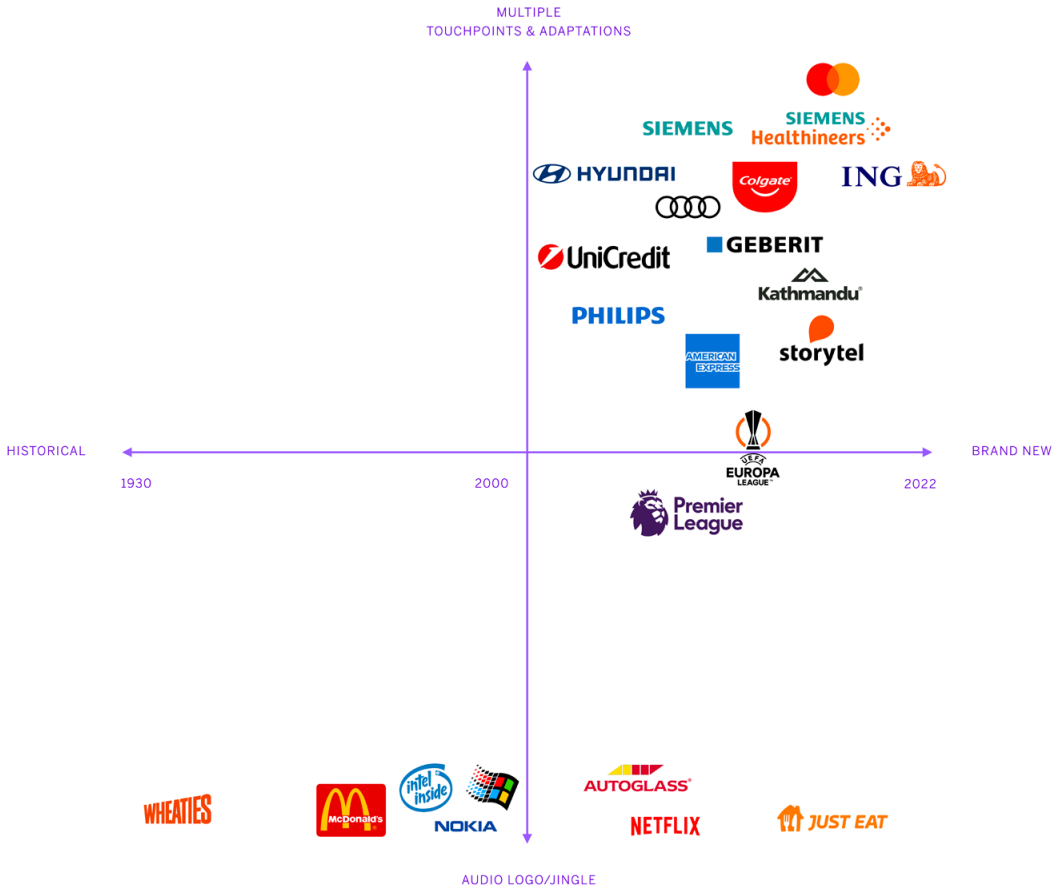
Roscoe Williamson, Creative Strategy Director at Massive Music London, stated: "We needed to create a sonic architecture that could tie Colgate's diverse marketing content and geographical reach together with a sound that could be universally understood as both optimistic and unmistakably Colgate. Working with a team of academics and psychologists, we were able to really decode the ingredients of optimistic music. The result is showing to be highly recallable and adaptable." (*The Sound of Colgate*)

Another very interesting approach to the description of these case studies has been trying to create a taxonomy of these sonic identities.

The trend that I have observed is based on more than 30 case studies analyzed and the latest scientific evidence out there. We are really experiencing a sonic brand revolution. Most of the brands before the 2010s didn't consider audio branding as a holistic approach to the creation of a full-scale sonic identity. This is especially true for brands that have decided to invest only in sound trademarks and jingles.

Overall, before the 2010s, there were a very small number of companies that invested in sonic identities and most of them commissioned just jingles and or an audio logo.

A good example of this is the Audi brand. The Audi heartbeat already existed as a sonic asset and was remastered in 2016, but up until 2021 the brand didn't have a holistic approach to sound. It only employed a sonic logo with no consistency on other touchpoints.



↗ [Fig.38] Matrix highlighting brands that have undergone music renovation in time, categorized by quantity of audible touchpoints.

As time passes by and brands become more and more aware of the need for consistency to strengthen brand reputation and perception, holistic corporate sonic identities become more and more appealing to international clients.
Here's a representation of a matrix of the brands taken into consideration in my analysis. On the x axis time is represented. On the y axis there is the number of audible touchpoints deployed in each identity.

This is obviously just a screenshot of the current situation in 2022: the market is rapidly changing and identities are evolving at an astonishing rate. Nonetheless, the trend observed is clear and can be predicted to go on for several years.

The only companies that still invest in sonic identities but do

not apply them to multiple touchpoints have specific needs -like Netflix and HBO. This is because their core business is selling multimedia content to consumers around the world and since content is so diverse, sonic adaptations struggle to keep up with it. Therefore, these brands limit their sonic footprint to just openers and closer with sonic logos.

It could be argued that they still retain a holistic approach to their sonic identity since there is no need for specific sonic assets on other audible touchpoints, even though consistency throughout content becomes a real challenge.

Overall, the market is moving towards music branding 2.0, a holistic approach to music branding that encompasses different and diverse applications of a brand theme across regions and markets. Companies seem to be more mature and open to the possibility of investing in this new frontier of digital identity. But why should they? Do these decisions make sense in terms of ROI (return of investment)?

Answers to these specific questions and the future of music branding will be taken into account in the next chapter: Why music branding?


NETFLIX

3. Why music branding?

Introduction

The third chapter offers an in-depth analysis of the intrinsic value of music branding in the era of digital audio streaming and personalized advertisements. Scientific evidence and real-world market research has proven music branding to be the most effective distinct brand asset a company can leverage. This powerful tool keeps evolving with time and technological advancement. This chapter will also provide the reader with a full overview of state-of-the-art and cutting-edge technology by providing real examples and experiments that are forever changing the panorama of music branding and audio advertising.

3.1 Understanding the value of music branding

Keywords: brand assets; recall, recognizability; connection; consumer purchase intent; ROI; sonic mnemonics.

Up until now in this dissertation, we have talked about the marvelous ideas behind music branding, how it has evolved from jingles to full holistic corporate acoustic identities and, in the end, how it can embody and give personality to the essence of a brand on the auditory level. Although this sounds great to all the people who love tidy and well-organized brand assets, it cannot be enough to convince key opinion leaders to invest in audio branding.

When we think of branding from a visual perspective, it is easy to see the benefits that a company might draw from a system of visual brand assets it can apply to all of the products it sells and all the different markets. It gives the brand a unique touch and makes it stand out on the supermarket shelves or in the digital environment in which online-only brands compete.

Even though the same can be said for music branding, leaders and executives in big companies are starting to understand the power and the importance of a unique touch in the audio realm just now. This is because, unlike a visual representation of a brand, a sonic identity can be trickier to understand and even more trickier to track when it comes to performance indicators (KPI).

During this research, I posed this question to the Global Director of Clients of a major music branding consultancy. To him, it looks like a no-brainer for companies to invest in music branding.

I asked him: "what is the real value of music branding and why should a company have an auditory presence on the market?" Here's the answer:

> *«It's proven to be effective. If you take a look at the IP-SOS report from 2020 (Sheridan, 2020) this is becoming the gold standard of data for every company that wants to invest in audio branding nowadays. That proves there is value in it. Let's think of the investment of the brand, which could go from 100k to 500k euros depending on what type of engagement is required from the company. Let's assume an initial investment of 250k euros. Based on this, you will get a substantial amount of brand assets you can deploy wherever, the infrastructure is already there because you have been communicating.*
> *This is something that you add on and start using. The first investment would be in money, while the second is in time. Time spent on making people aware of new brand assets and time on deploying new brand assets. Doing the numbers on this, the implementation should start paying you back in the next two or three years if it really starts working for your brand and It will up your recallability or distinctiveness by a couple of percentage points. For an international company, that's a no-brainer.*
>
> *If you could say : "We are going to sign this year's investment and within four years, brand recall will rise by X% if you stick to the plan." then, no brand is going to think that it won't work for them.»*

If a company can grow by a couple percentage points on sales by deploying brand assets, they will gladly invest the money.

Since music branding as a system is something that has been gaining traction only in the last few years, for a long time research on effectiveness has been stuck and waiting for new behavioral evidence to show up. Finally, in 2020, IPSOS (Institut de Publique Sondage d'Opinion Secteur) -a multinational market research and consulting firm- uncovered *The Power of You: Why distinctive brand assets are a driving force of creative effectiveness*.

↘ [Fig. 1] Cover of IPSOS' report The Power of You, published digitally in February 2020.

Adam Sheridan at IPSOS set out to conduct market research on the effectiveness of music branding and other exclusive brand assets in order to understand what works and what is the most valuable.

They conducted a meta- analysis of over 2,000 pieces of video creative, examining the relationship between effectiveness and the presence or absence of brand assets.

Three main insights came out of this research:

1. The presence of brand assets is strongly linked to positive branded attention effects, more so than just directly showing or talking about the brand.

2. Brand assets that leverage the power of you, such as characters and sonic brand cues, are more effective than assets that are leveraged from wider culture, such as celebrities and music.

3. While less frequently used, audio assets are on average more effective than some visual assets, which suggests brands can take the opportunity of audio to improve the branded attention of their video creative over time. (Sheridan, 2020, 2)

These insights marked an astonishing result for the music branding industry. It is one of the first times in which a study could confirm not only that audio is indeed a valuable form of recall, recognizability and added value to the brand, but also that it is the most effective way to drive recall and create a connection with the consumer!

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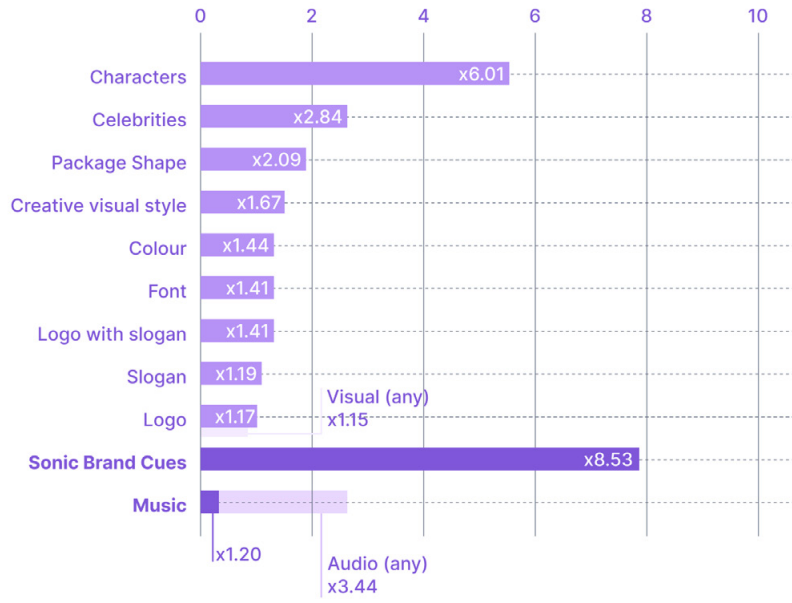
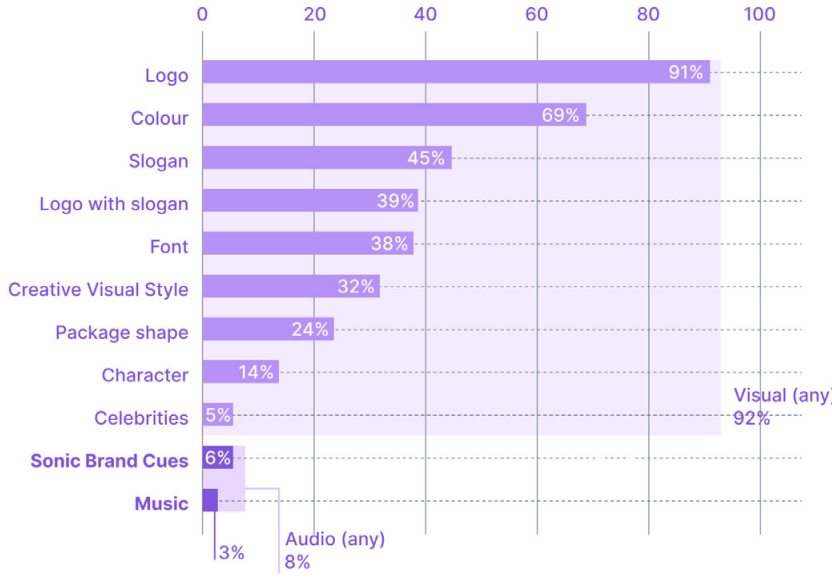
Thanks to the elaborate metrics in market research, in [Fig. 2, 3] IPSOS was able to establish that although used in less than 10% of cases found in their dataset, audio was performing 3.44 times higher than any other brand assets. Sonic brand cues, like those described in the last chapter, were 8.53 times more effective in brand attention than other cues.

No wonder why IPSOS describes it as a “missed opportunity”. According to a research study by DLMDD and SoundOut conducted in 2021 (McCullough, 2021), sonic logos that are recognized by customers increase the brand’s value on average

↘ [Fig. 2] IPSOS' view on effectivness of brand assets' effectivness: audio stands out.



↘ [Fig. 3] Brands seldom employ sonic branding cues or music as a strategic brand asset according to IPSOS.



by 5% while simultaneously driving consumer purchase intent. The study, undertaken by DLMDD and SoundOut, the world's leading sonic testing companies, is the first of its kind to examine the value and ROI of sonic logos in the marketing and branding industries.

The study also discovered that when consumers make no connection between the sonic logo and the brand, their perceived value drops by 7.7%, emphasizing the importance of recall, recognition, and brand equity in sonic identity design.

A consumer panel of 8,000 people aged 16 to 65 years tested the audio logos of 40 big UK businesses for the UK audience. ASDA, Just Eat, Haribo, Lloyds Bank, AO, Renault, and Moonpig were among the brands represented. 22,000 individuals between the ages of 16 and 65 in the United States were shown 110 brands.

> *"What a time to be alive in the world of sonic branding. Brands are investing in sound like never before and this new research is the first of its kind to identify the return on investment in sonic logos. However, the findings also signal a firm watch-out to brand leaders – work with the sonic brainiacs to get your sound right. Banging a few random notes at the end of your next campaign could send your brand value nosediving in the opposite direction." – Max De Lucia, DLMDD Co-Founder (McCullough, 2021)*

↙ [Fig. 4] Max de Lucia, co-founder of DLMDD.

Another study conducted by DLMDD in partnership with YouGov reveals that the more you listen to brands, the more you spend.

This revolutionary study demonstrates that sound not only helps brands build trust, loyalty, recognition, and recall, but it also links sound to consumer spending; 1 out of every 5 people under the age of 35 is more likely to choose or purchase a product from a brand with a sonic identity.

And, with 1 in 3 consumers under the age of 35 is preferring businesses with a sonic identity to those without, it's apparent that having a distinct brand sound in the arsenal is no longer a choice for brands that want to stay on top. (*The Results Are in: Sonic Branding Is Making Consumers Spend*, 2021)

Consumers now associate which brands have a particular acoustic character, according to the study. Nearly 20 years after its introduction, McDonald's legendary 'I'm Lovin' It' jingle, recreated by Justin Timberlake, came out on top. The second place went to Coca-signature Cola's bottle opening and fizz sonic world. Netflix's instantly recognized sound emblem takes a more immersive approach, and has only been in the public ears for a few years.

↘ [Fig. 5] Two scenes for the famous Italian Netflix campaign "ta-dum".

Netflix's "ta-dum" has become a worldwide earworm.

All of these businesses are ahead of the curve in terms of activating customer recognition and spending by creating emotionally resonant, modern, and multidimensional brand worlds that 'cut through the noise' of their competing settings.

> *"The creative industry has been making a noise about sonic mnemonics for decades. But it's changing fast. Sound design for brands has evolved from 'just jingles' to fully immersive soundscapes." (Ramsden, 2022)*

All of this research is showing great potential for the future of music branding, and music branding 2.0 is fully taking ad-

vantage of these insights. Nonetheless, brands need to keep in mind the importance of tracking their results with tangible and reliable KPIs.

But how do you track a brand's sonic identity? I asked the Global Creative Strategy Director at a music branding consultancy.

> *"If we are talking about post launch brand tracking, that style of measurement, then many brands will have a brand tracker that they will be using either with a third party or in-house themselves.*
>
> *We have a few questions that have been validated in terms of their authenticity for research which can help look at the effectiveness of the sonic branding. So, for example, for Colgate, we are tracking alongside a third party called IPSOS to look at how the Sonic brand is aiding spontaneous recognition of what they call Equity Content across LATAM, so equity content is like general brand content, so that's like General Colgate. Feel good branded content.*
> *It's not like this is that product line, this is the toothpaste. It's not like that. It's general branded content.*
> *We found that only over a period of seven months that the sonic brand has increased fairly significantly the spontaneous recognition of branded equity content. Which is great!*
>
> *So it's a series of questions that you put into a brand tracker that can help tell how much the sonic brand is aiding various things like brand recognition, etc. Then you can extrapolate that a certain amount increase in brand recognition creates a certain amount of increase in brand strength. There's so much research out there which is a separate topic on the ROI of brand strength so you know it's all additive in that way."*

In the next couple of years, we are definitely going to witness a great increase in sonic branding use or unique sonic brand assets. It is a great time to diversify the way we are used to thinking about advertising and the way brands reach consumers. Thanks to technological advancements, creatives -now more than ever- have the ability to really engage with customers in new and diverse ways. In the audio space, innovation is on the rise.

3.2 The future of music branding

Keywords: programmatic advertising; ai voices; melody; human voice; product sound; UGC content; functional music; conversational interfaces

Forecasting and future casting have always been very active components of the branding industry, and designers enjoy speculating on the future of their own practice, based on what is happening in the world of technology or on how new minds are approaching specific challenges. But trend forecasting and future prediction actually help us shape what we want next from the practice we are involved in. This is why it is important to always keep an eye on emerging technologies and innovative ideas, not to preclude anyone from the ability to think of the unthinkable. Innovation is always exciting, but I must admit that the domain of audio has some rare and exquisite new ideas lining up and ready to be used.

I was fortunate enough to have the chance to ask my KOLs about the future of their own practice and they were more than happy to share with me what they think is going to be the next big thing.

Here's four trends to be aware of moving forward with music branding 2.0 or greater.

Programmatic Advertising with AI Voices

Programmatic advertising is a form of digital marketing that uses algorithms to automate the buying and selling of advertising space. Advertisers can use programmatic advertising to target specific audiences with more precision than traditional advertising methods, and publishers can use it to maximize revenue from their ad space.

Programmatic advertising is on the rise. Companies can access data from third-party providers and then tailor their offering based on the profile they can compile with available data. One of the future trends is targeting advertising and programmatic advertising.

In the near future, this could become increasingly more widespread, thanks to technological evolution in the field of digital & synthetic voices.

Jautschus shared his thoughts on this:

> *"Right now, to have personalized experiences in our industry would be very time-consuming, and I would be seeing something like this more in 8-10 years' time. We already have personalized experiences, but in order for us to have a great variety of voices, you need to have good synthetic voices. [...] It is very stunning to see where we are right now with this technology, but I think we need more time to nail the whole voice thing. It is quite hard to fool us: humans are very, very sensitive to human voices and very good at recognizing if it's a real voice or not. In terms of music, it wouldn't be hard for an AI to pick the right music given a certain situation. It is also a matter of how much money the effort will cost and how efficient the personalized audio experience turns out to be. It will come in the future, but as long as humans are actually doing audio branding, there will not be a personalized audio branding experience because there would be way too much work."*

Another industry KOL thought that programmatic advertising was indeed going to be big in the future and began investing in it several years ago. His idea was: "What if we could create unlimited watermarked AI variations of branded music?". Although he was interested in the future of the practice, he understood that, at that time, the quality of the output with the current technology wasn't there yet. He stated:

> *"Hyper-targeted personalized advertising is definitely interesting for sure. It's going to happen at some point."*

The return of the jingle

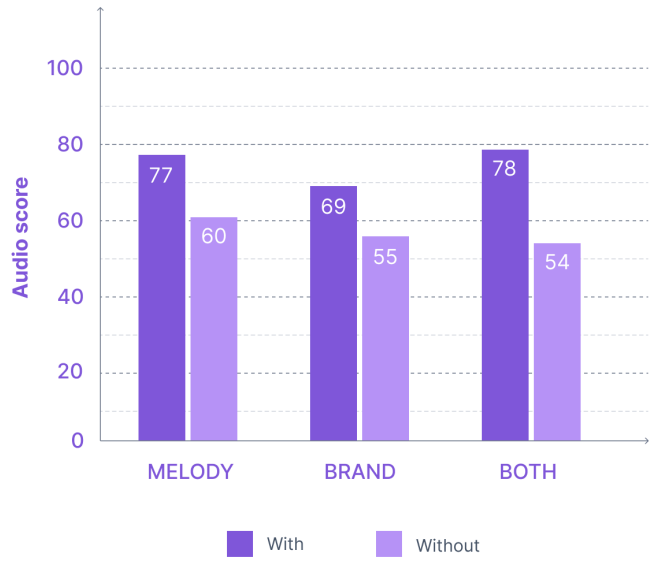
It has been described as "the return of the jingle" but in a different form. More and more music branding agencies and brands are realizing that the connection that people have to voice is so much stronger than just listening to a melody. If you analyze this from a brand recall perspective, there is literally nothing else that can beat having vocals and a melodic hook together. That is why we remember nursery rhymes in our forties that we were singing when we were five years old.

Two separate studies help corroborate the fact that recall is boosted by either saying the name of the brand in the audio logo and or adding a melody to it.

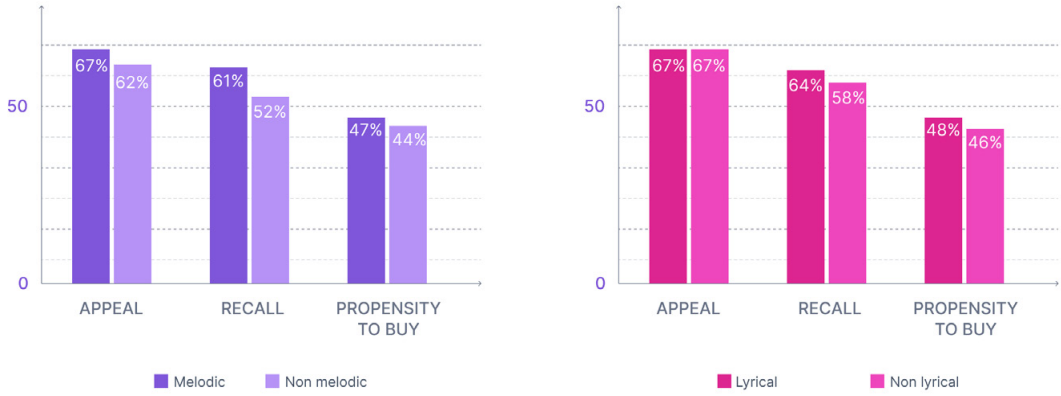
The first report from Veritronic. Veritronic is a technology company that specializes in developing innovative solutions for businesses of all sizes. For them, technology should be used to simplify and streamline business processes, and their goal is to provide clients with the tools they need to succeed. Their services include web and mobile development, cloud computing, data analytics, and more. In their "2021 Audio Logo Index", they uncover the following:

> *"It seems so intuitive at this point: put your brand name in your audio logo and it's going to be easier for people to know that sound is you, which in turn creates brand affinity. Nine out of the top-10 audio logos in this index include the brand name.Audio logos that use the brand name score 29% higher overall." ("2021 Audio Logo Index: A Veritronic Competitive Intelligence Report," 2021)*

↘ [Fig. 6] SoundOut higlights the effectivness in combining melody and brand in sonic cues.

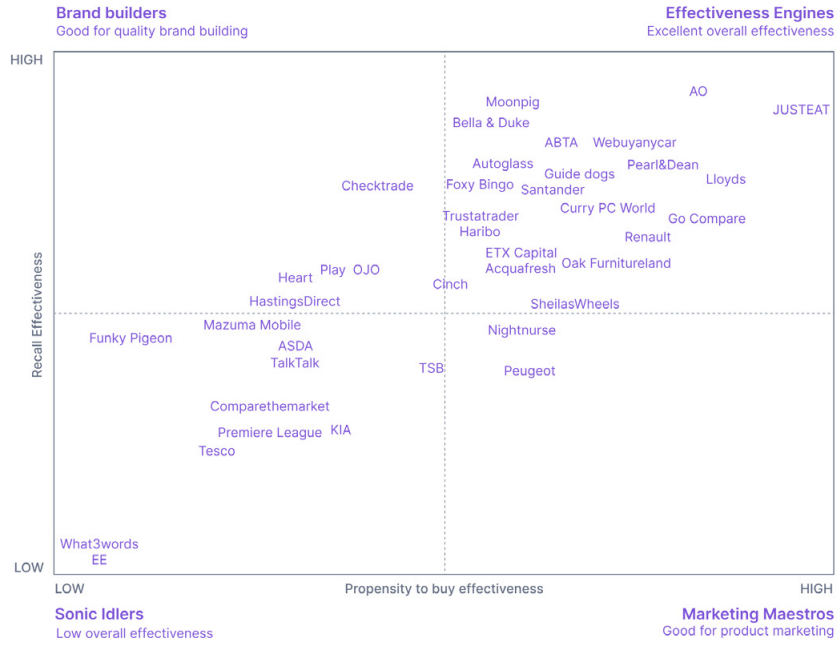


The second report comes from SoundOut, the world leader in strategic sonic branding and audio marketing testing. They specialize in helping organizations trigger the right emotional response from their customers by matching brand personality and attributes to music by providing the data and insight needed by clients to increase the certainty of achieving a strong ROI from their audio branding investments.



In “The SoundOut Index: The Sonic Effectiveness Matrix Effectiveness Edition” they explain how an audio logo with melody and lyrics has better chances of being appealing, recalled and fosters propensity to buy.

↖ [Fig. 7] A view at appeal, recall and propensity to buy metric based on melody and lyrics employement in branded sonic cues.



↖ [Fig. 8] Mapping the effectivness of the top UK sonic logos in 2020s.

From Product Sound to Content Sound

Primarily happening in the technology sector. We find ourselves interacting with product sound every day (e.g. video call incoming sound, instant messaging app notification

sound) and these sounds have an incredible scale and reach. They are, of course, distinctive brand assets that companies build over time. Companies have now realized how powerful these sounds are and are trying to deliver advertising content with these specific sounds embedded in them.

As a consequence of this, the two distinct entities “brand as a product” and “brand as visual, advertising'') are going to merge in the future. Product sounds will and already have become part of the advertising campaigns worldwide. Experience and Communication in brands will become even more intertwined and, in the future, sound will bridge the gap between these two.

↘ [Fig. 9] Roscoe Williamson at Future LOndon Academy online keynote speech on Feb 14, 2022.

User Generated Content Sonic Brand

Users (especially on short video sharing platforms) are starting to use sonic assets of brands in order to create memes and organic trends on the various platforms. We've seen so much content generated by users that use distinctive brand assets, especially on TikTok.

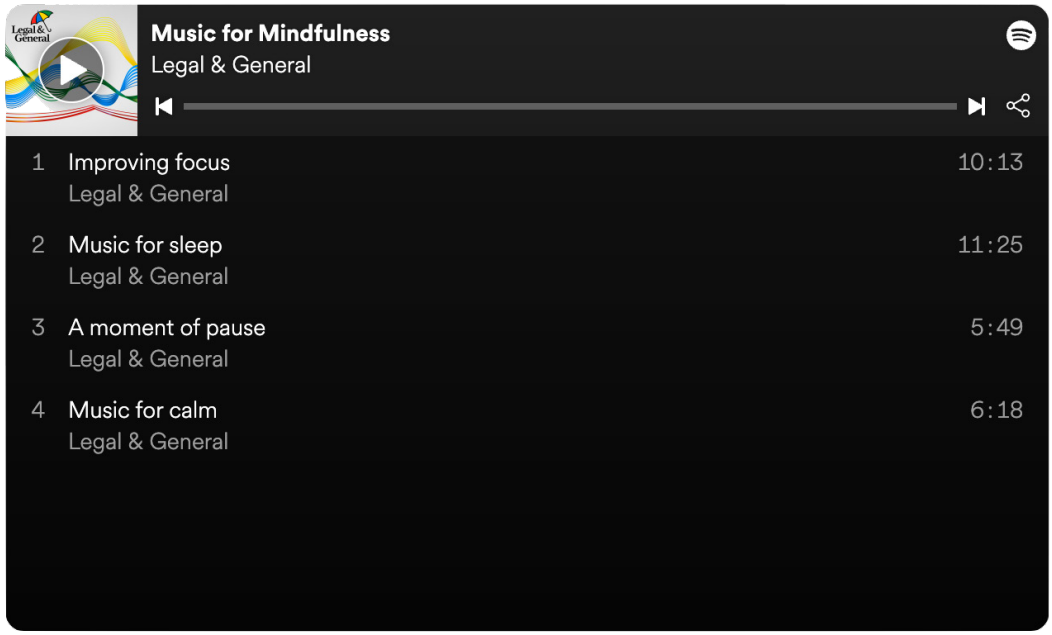
With TikTok's confirmation as the fastest-growing social app, marketers looking to interact with their audience will be more interested in music. Every month, a billion individuals use the app — more than Google and Facebook combined, and almost three times the worldwide audience that Spotify

attracts. TikTok has put sound and music at the center of its marketing strategy, and it's already paying off, both as a launchpad for new musicians and as a platform for marketers looking to engage with the TikTok generation. (Courtier-Dutton, 2022)

Functional Music

Functional music looks at how different frequencies, different sounds and music can positively affect various physiological and emotional responses in humans. Some experiments have been conducted with health care brands like Siemens Healthineers or Legal and General in the creation of music playlists that can help people relax, focus, sleep etc.

↙ [Fig. 10] Music for Mindfulness playlist for Legal & General created by MassiveMusic.



Conversational Interfaces

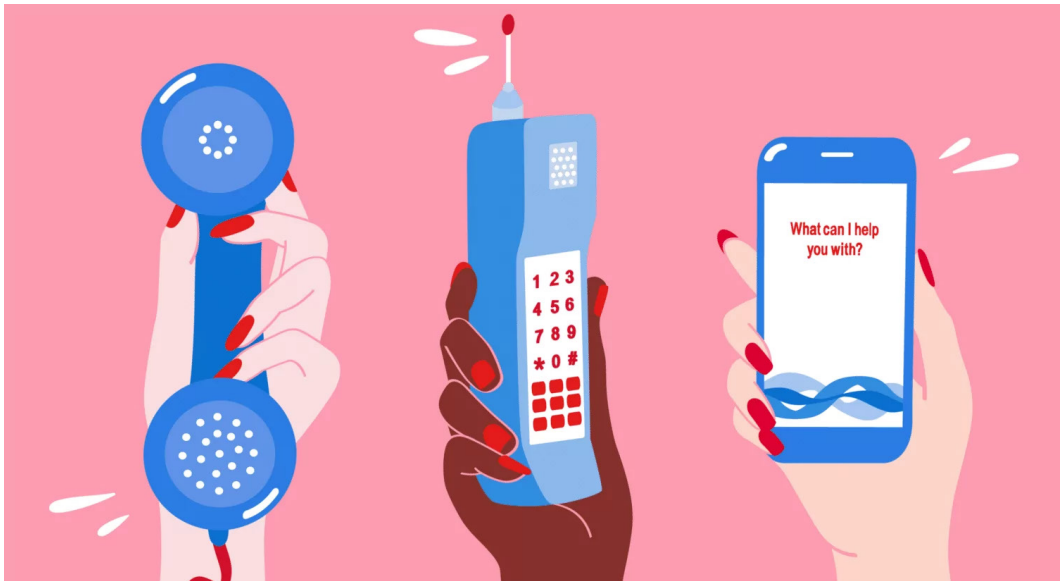
Conversational interfaces are becoming increasingly popular, as they offer a more humanized way to interact with consumers. However, many organizations have not yet caught up with expectations, and most use cases are anchored in delivering convenience. Consumers are ready to see higher levels of personalization, emotional connection, and value.

Businesses and brands are actively creating sonic identities,

with screenless purchasing via smart speakers expected to reach over $40 billion in 2022, up from $2 billion today in the United States and the United Kingdom.

> *"Alexa is reported to have 50,000 skills (functionalities), be compatible with 20,000 connected devices, and is used by more than 3,500 brands.*
>
> *Google's voice interfaces support more than 30 languages and the company plans to roll out voice capability to 80 different countries.*
>
> *Microsoft and Amazon have announced a partnership between their voice assistants – Alexa and Cortana – to enable additional functionalities and greater reach for their customers" (Capgemini Invent, 2019)*

↘ [Fig. 11] The evolution of audio interaction with the user in the last decades.



Speech shopping is expected to expand to $5 billion by 2022 in the UK, up from $2 billion today, with 16 percent of consumers utilizing voice to make a purchase, according to OC & C Strategy Consultants. Smart speaker ownership in the UK has now reached 29%, according to YouGov. As this technology becomes more ubiquitous, these gadgets provide the ideal platform for a company's audio branding and sound communications.

> *"Over the next three years, 70% of consumers, on average, will replace their visits to the dealer, store, or bank with their voice assistants" (Capgemini Invent, 2019)*

Conversational interfaces will become increasingly more important and when they do, brands have to be ready in order to embrace that their presence also has to be heard.

This overview of future trends is a picture of 2022. It's going to be extremely exciting to see how the future will turn out to be, as I am sure that in the next couple of years, things could dramatically be changed, given the pace of evolution in the field of technology and computing.

3.3 Real Examples of Innovation

Keywords: voice ads; AI voices; speech-to-text; hyper-personalization; regional relevance; big data; sports; accessibility

The purpose of this paragraph is to describe what is already on the cusp of innovation in the field of music branding and audio technology in general. A lot of potential has been unlocked by Artificial Intelligence, although human creativity is still at the heart of what these new experiences are destined to be. Here is a list of technologically advanced experiments that are going to define the future of music branding.

Voice Ads: a new form of advertising

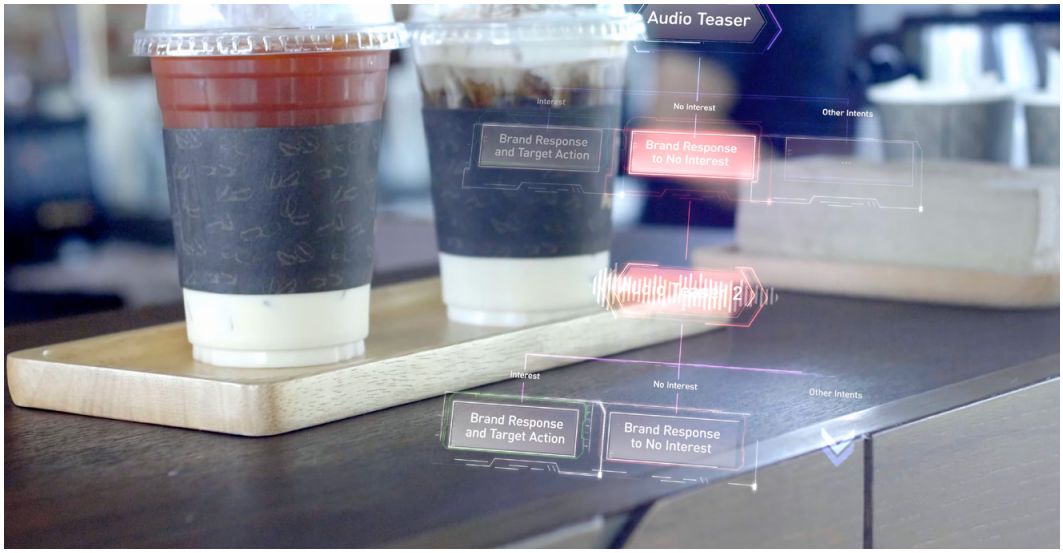
As millions of Pandora users utilize Voice Mode to navigate their music on the platform, advertising companies realized that speech had applications beyond searching and playing music. Since customers were already accustomed to speaking with Pandora, they decided to create Voice Ads. Listeners can now directly interact with the brands that matter to them.

SXM Media is a full-service media company specializing in satellite radio. They offer a wide range of services, including programming, production, distribution, and marketing.
They were able to roll-out a closed beta for Voice Ads with major brands such as KFC, Xfinity, Unilever, The Home Depot, Acura, and more.

↘ [Fig. 12] Who is listeing and responding to Voice Ads on Pandora?

The results were interesting. They found out that everybody talks to Voice Ads. [Fig. 12]

However, Gen-Z is the most engaged cohort, with 30% more likely to interact with voice commercials. This, combined with the fact that Millennials account for almost 40% of the voice-enabled population, is particularly noteworthy, given how challenging it is to gain the attention and engagement of younger demographics.



↗ [Fig. 13] Instreamatic Ad serving process.

A question comes up quite obvious: do Voice Ads work?

> *"Say-through rate is Pandora's standard first-party metric for measuring verbal engagement with voice ads. During closed beta, voice ads had up to 10x higher say-through rates (think of it as the click-through rate of voice ads) over click-through rates, suggesting that voice is*
>
> *1) a more native way to engage with audio*

2) enabling a way to engage while listeners are otherwise hands-free.

Finally, our Veritonic tests showed that voice ads had 27% higher purchase intent than the audio ad benchmarks for those who engaged in the ad. They also had consistently high scores for attributes such as Relevant to Me, Interesting and Trustworthy.

Essentially, these new formats really resonated with consumers and were a highly effective means of connecting with them." (Mitchell, 2021)

AI voices with personalities

Sonantic was founded in December 2018 by co-founders John and Zeena, after meeting at Entrepreneur First. Both had a decade of speech experience each and a deep interest in speech technology.

At Entrepreneur First, John showed Zeena a demo of an artificial voice that sounded perfect, including breath. She realized that gaming studios could really benefit from hyper-realistic artificial voices, since game developers are expert storytellers who already use cutting edge technologies, including text-to-speech. So they set out to fix this problem and landed 7 pilots with AAA gaming studios within 5 days.

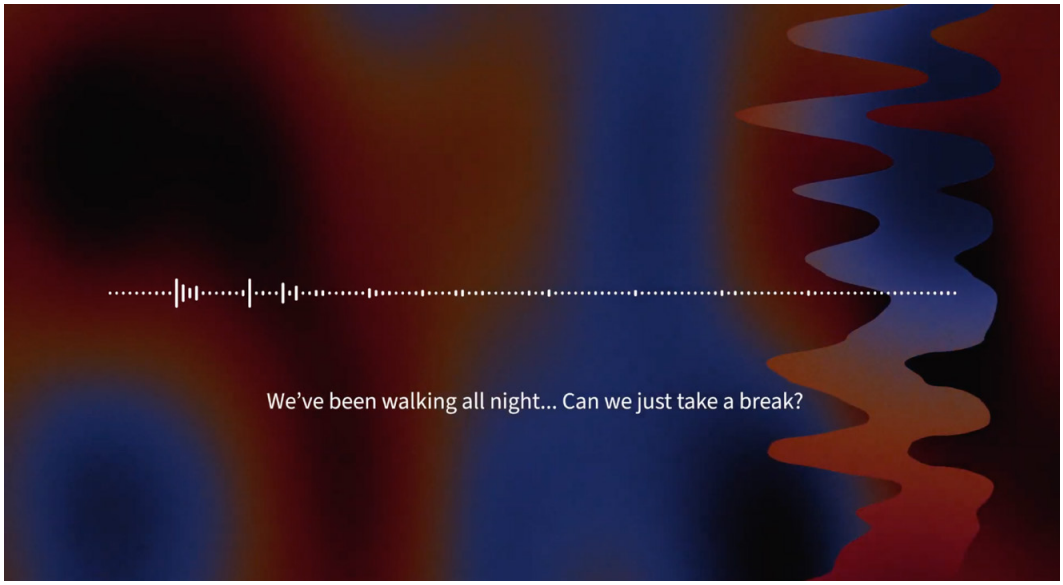
They knew that current text-to-speech solutions sounded robotic, lacking natural performance and quality because speech synthesis is very subjective, unlike speech recognition, which is more objective. So they built a 'Photoshop for voice' and have over 1000+ companies on their waiting list in under 2 years.

Sonantic was the first company to truly pioneer voice to speech human-sounding text with a variety of emotions and shades in their voices.

This ability to trick the human brain into thinking that a real human is behind the microphone could completely change the spectrum of possible applications for personalized audio advertising and several other entertainment industries.

Combined with AI technologies, Sonantic synthetic voices could provide a ground breaking platform for the future of hyper-personalized audio advertising.

↘ [Fig. 14] VoiceAi graphic representation.



Hyper-personalized and regionally relevant ads

Another extremely interesting field of innovation in which music branding will play an important role is multilingual targeted advertising and targeted audio advertisements.

As of now, services like Adsonica can already provide regionally relevant audio advertisements based on the region where the ad is being played and even language preferences on people's browsers. However, some companies like Semetis and A Million Ads are harnessing the power of data to offer even more personalized experiences.

A Million Ads is a company that combines all the data points known about the user, their environment and the campaign to influence what they hear. The more they know, the more personalized versions are created, making for a more personal experience. Their platform creates all of the personalized versions automatically, controlling production costs.

They collect three categories of data:

In the moment data:
- Day & Time
- Location
- Sequence
- Device Type
- Weather

Publish, DSP & DMP data:
- Gender
- Age
- Playlist/Station
- Language
- Household income
- Behavior
- User Segment

Bespoke data:
- 1st, 2nd, 3rd party segments
- API connections

In 2021 Belron Group (owner of Carglass, Autoglass and Safelite) partnered with Semetis and A Million Ads for a hyper-personalized campaign in Belgium.

↙ [Fig. 15] A million ads created 528 unique audio ads thanks to AI and data analysis.

They started to analyze two key metrics:
- Weather conditions, as driving conditions, are correlated with damaged windscreens

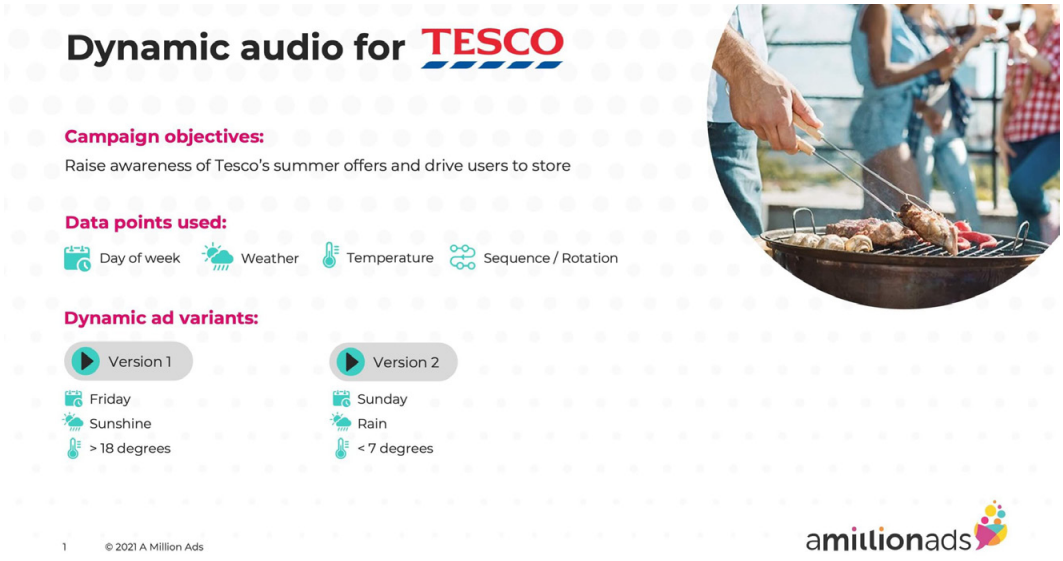
- Location, emphasizing the proximity of a carglass service center

The user location data was leveraged and infused with storytelling, so Carglass could establish a more personal connection with the listener.

Combining 6 weather conditions, 44 service locations in Belgium and 2 languages, they created more than 500 unique audio advertisements.

The results: 453,000 Belgiums were reached by these ads, of which 83% heard a fully personalized audio ad. Overall, the number of bookings increased by 46% thanks to the ad.

↘ [Fig. 16] Dynamic audio adv for Tesco by A million ads.



Making sports accessible

Action Audio is the world-first technology for adding sound to live sports, allowing those who are blind or visually impaired to follow games in real time.

Action Audio, which was developed in collaboration with Tennis Australia and Monash University, uses data from a ball tracking computer vision system to highlight critical moments of play with a 3D sound design system created for the blind and low-vision community.

Action Audio will provide the first opportunity for many visu-

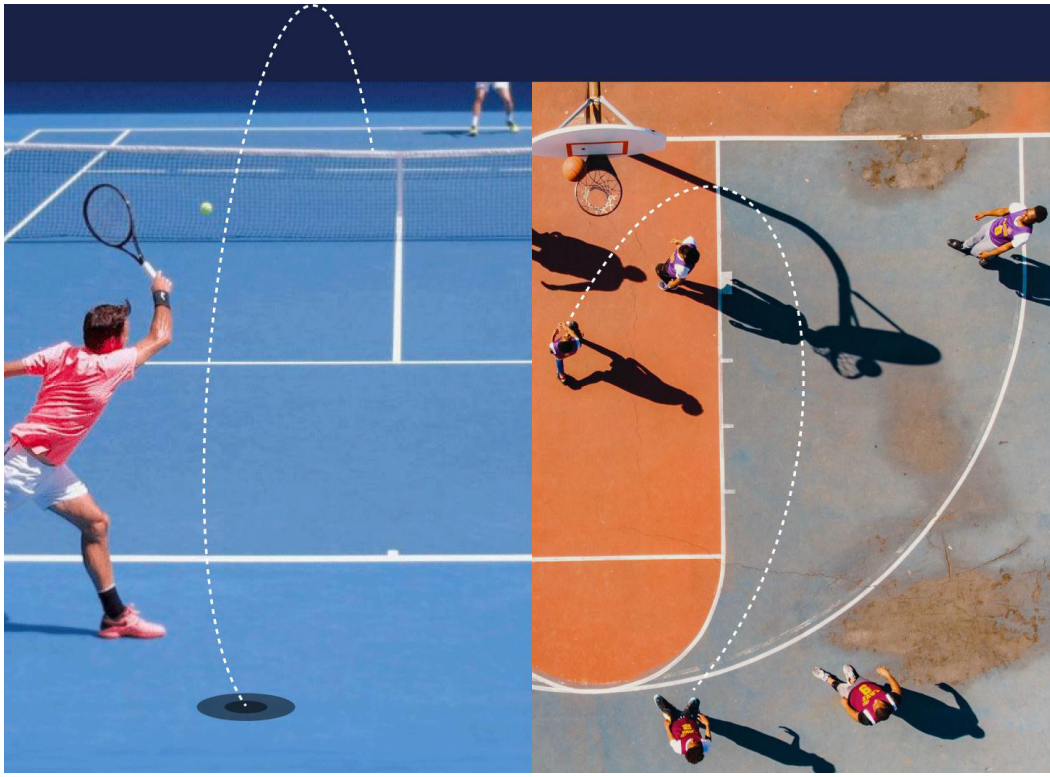
ally impaired sports fans to follow the speed and actions of a live game.

During the finals of the 2021 Australian Open tennis tournament, Action Audio debuted. For the 2022 Australian Open, Action Audio is now accessible on live radio and through Google Assistant for every match at the Rod Laver Arena.

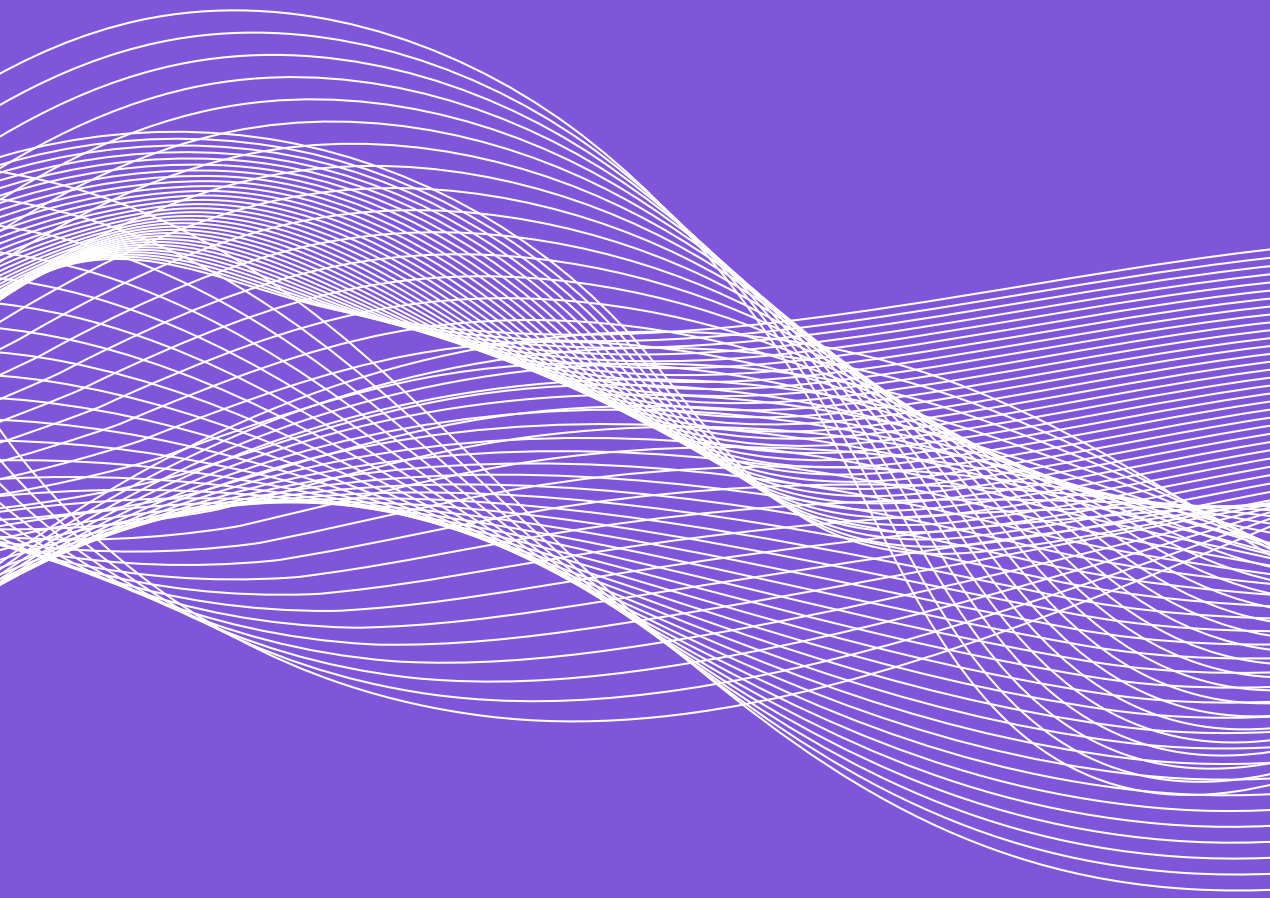
Listeners may now use Google Assistant to listen to Action Audio as well as live radio commentary of each game on center court during the tournament, making it even more accessible. Visually challenged tennis fans can ask Google to stream the Action Audio live broadcast using voice commands, as well as access information about how Action Audio works to learn more about the experience.

Action Audio sets a new standard in accessibility in sport, the ubiquity of ball monitoring computer vision systems at over 80 tennis tournaments worldwide, and other codes such as cricket and football, creates a huge opportunity to open access for millions of visually impaired sports fans.

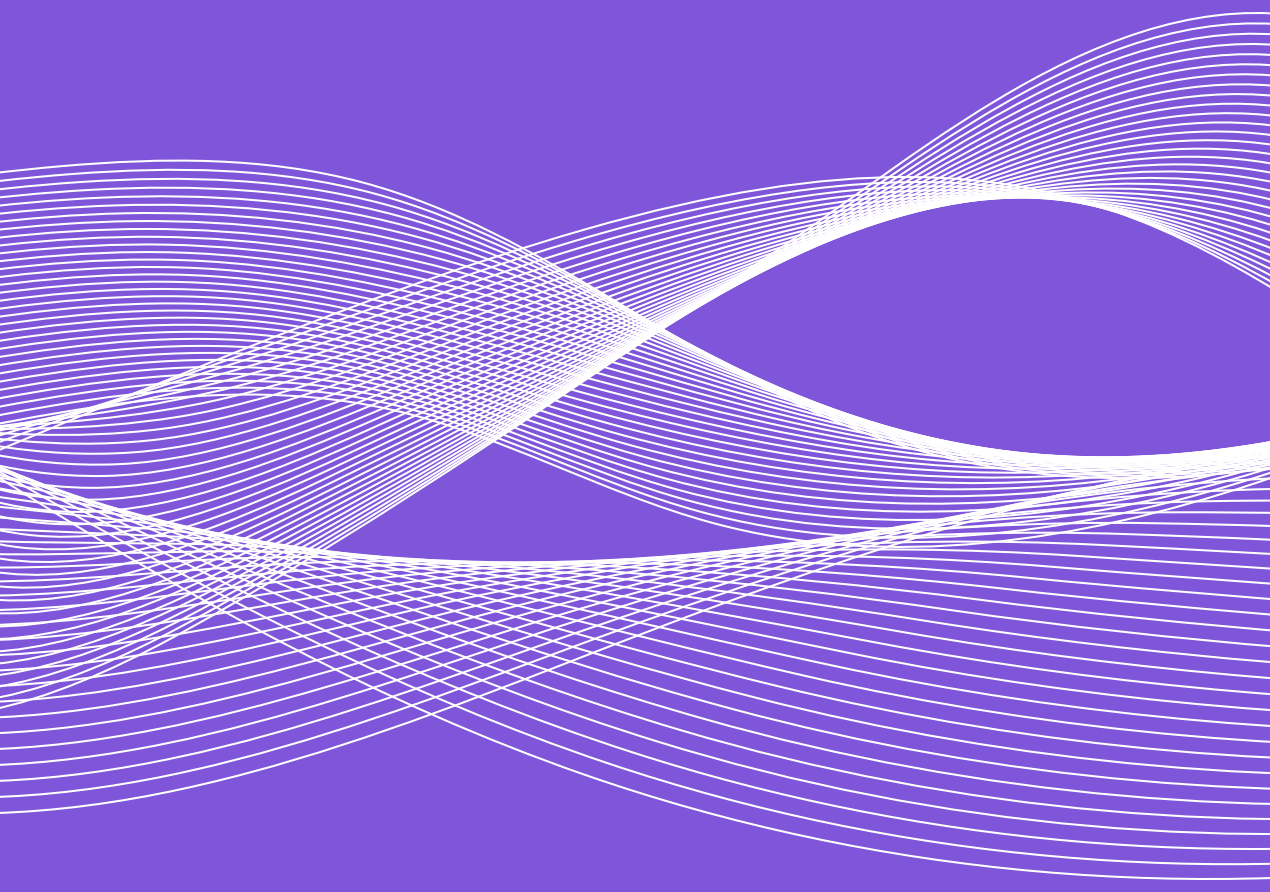
↙ [Fig. 17] Action Audio representation.



music branding basics



4. music branding basics



Introduction

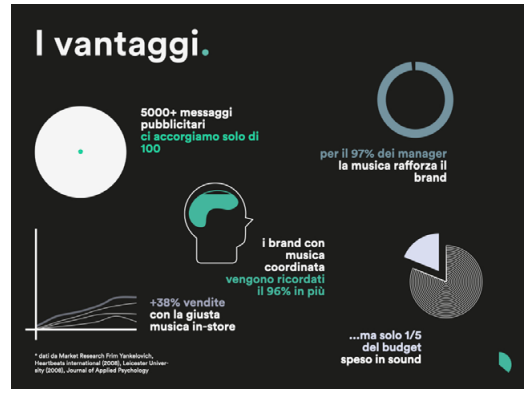
The fourth chapter describes the project linked to this thesis work. In addition to this dissertation a digital platform has been created with the aim of educating people on music branding and collecting useful information about the topic for educational purposes. We'll go over the nature and the aim of the project, how it is made, what is its content and what can be improved in future releases. At the end will be presented some ideas for additional future features or expansions in terms of content and functionalities.

4.1 Definition of the aim of the project

Keywords: corporate identity; Communication Design; digital guide; platform; open-source; community; case studies; framework; knowledge.

Although music has been around for the longest time, the idea of music branding as a holistic system that could be applied to a brand has not. Growing up, I have always been fascinated by music. I sang in a choir and played percussion instruments like bongos, darbukas and cajons. And, of course, I was exposed to television ads and audio logos like everybody else. But it wasn't until 2016, during a course at Politecnico di Milano, where I encountered and studied my first holistic corporate identity. Certainly, at that time, I was very much interested in visual identities and brand guidelines, but little I knew about music branding.
My research brought me to Unicredit's new sonic identity

↘ [Fig. 1] Keynote slides from Audio Branding. L'identità sonora delle marche.



from AMP. For the time being, the identity was strong and well thought out. It started out with a brand theme called “You are welcome” and from there all the sonic assets were developed.

My team and I at Politecnico di Milano were asked to give a presentation to the class in order to present the concept of sonic identity and audio branding. Certainly, it had very little research in it and just one case study, but it sure sparked a very peculiar interest in me.

As I continued my journey at Politecnico in Communication Design, the idea that audio could be potentially a great source of innovation in projects never abandoned me.
I kept exploring its potential. First through voice-acting both in English and Italian, then through music selection and audio mixing for different projects and finally by recording, mixing and publishing a podcast.

This is how my passion for music branding came around and accompanied my journey in the university.

Unfortunately, there is little knowledge about the importance of audio as a tool for Communication Designers. It is true that we are immersed in the world of visuals and videos, and I can understand prioritizing visual over audio for the time being, but let's keep in mind that sonic brand cues are proven to be more effective than visual branded cues, as discussed in paragraph 3.1.

While experimenting with audio in my time at Politecnico, I also began to look for online resources that could help me with the understanding of the practice and how it could be beneficial to communication design.
The information that I could retrieve online was scattered and very fragmented. I was surprised that there wasn't a sort of ‘central hub' for this emerging practice. While researching, I could see that the information was all over the place: agencies, clients, awards, academic and scientific papers. And then all of the multimedia content was scattered as well: Youtube, Vimeo, Spotify, Proprietary Brand platforms etc.

This is when a rough idea of a central hub for music branding for corporate holistic sonic identities came about. Since I wasn't sure if I had missed something in my research or if I was the only one having trouble finding documentation

around the topic, I decided to ask people working in the industry.

I asked Sebastian Jautschus if when studying at university he felt like he had enough online material to work on and if he would have liked the idea of having a “Music Branding 101 Digital Guide” with theory, history, media, case studies and explained processes all in one place. Here's his answer:

> *“That would be freaking awesome! I am not being biased here, but this project would be extremely nice. When I started, I learned so much from the people I worked with, that I didn't really read any books about audio branding, ever. I read so many articles and research papers because in audio branding you have to learn, and learn and learn. In audio branding, everything is always new and this is also why we have never-ending audible touchpoints.”*

This is when I got confirmation that what I was about to build could become a nice tool for higher education. So I decided to move forward and set the stage for the project linked to this thesis: music branding basics.

↘ [Fig. 2] music branding basics logo.

Music branding basics (stylized as mbb or mbb.education) is a knowledge platform dedicated to sonic identities that allows designers, creatives, music lovers and curious people to deep dive into how a brand can sound and be remembered. It serves as an information hub for beginners to get started and for people that already have knowledge of the practice to further grow their theoretical and practical knowledge.
The platform has been built around six pillars:

1. Branding theory
Starting from the notion that a brand is an experience that encompasses all aspects of the customer, branding theory is essential to better understand where music branding comes into play in the broader panorama of the existence of a brand.

2. Music Terminology
Extremely useful if you need to understand what terms are used to describe the elements of music. Including names of the different melodies, clefs, dynamics, beats and more.

3. Psychoacoustics
An introduction to how humans process and perceive sound. The need to understand how we hear sounds, we interpret them, and how they affect us emotionally and psychologically.

4. Music Branding process
Describing the creative process behind developing a brand identity for a company through sound. Including the creation of a sonic logo, brand theme, UI sounds and more.

5. Case studies
The best and most successful corporate sonic identities with videos, snippets of sound and curated descriptions, to learn from the practice and the best in class agencies out there.

6. The future of music branding
Defining the future of the practice, how it is evolving and what trends we should be looking for in the next couple of years in order to develop identities that are relevant to the time we live in and leverage current and promising new technology.

The platform has been primarily thought for academic use and personal knowledge, in order to grow and foster the basic understanding of what music branding and how it could be beneficial for Communication Designers in current and future situations. Nonetheless, it is open to anybody who wants to learn and develop ideas on the topic.

As said multiple times in this dissertation, music branding is living and breathing. It is in constant and fast evolution. On this note, Sebastian Jautschus challenged me again by stating the following:

> *"I think this is the challenge for your 101 audio branding guide, because it will only represent the time stamp from*

> *2022, but I think in 2024 it could already be outdated. The audio branding world is very fast-changing. The tricky part about all of this missing literature is that people are most likely backing off since it is changing so fast. It is hard to say "it works like this, always worked like this and will always be like this".*

I completely agree with the above cited statement. This platform risks being very limited, as time passes by.

Please keep in mind that although time will inevitably make some content feel outdated in a couple of years, all of the theoretical basics of music branding will likely withstand the years passing by. But this does not make it a good enough reason not to solve the issue that the platform faces. For these reasons, the platform will be open-source and everybody will be able to contribute to the website in order to keep it updated.

A repository on github will be available at all times and anyone will be able to suggest and edit, that then will be approved and published.

To make this process as easy as it should be, all the pages of the websites are editable with simple markdown language (.mdx files) that makes it possible for virtually anyone to modify it, even people that have no knowledge about HTML, CSS & JS languages.

By leveraging a future community, the platform could constantly be updated by editors and even agencies could become part of the process by creating their own case studies with the provided framework. Anybody could suggest the expansion or redefinition of certain articles present in the Basic Knowledge section and update case studies as they are created.

4.2 Description of the project

Keywords: online digital repository; music branding material; case studies; sonic identities; basic knowledge; GitHub.

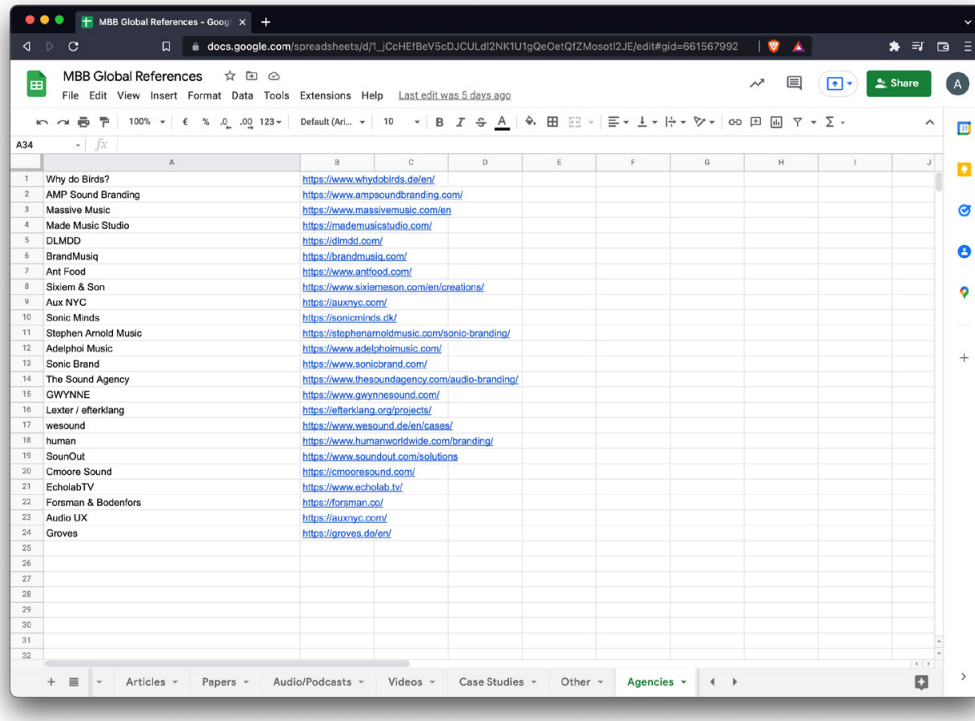
The idea of an online digital repository of music branding material, theory and case studies has been present since the

beginning of this work in July 2021. The first time I met with professor Francesco E. Guida, who is the supervisor of this dissertation, spoke about the idea of investigating audio in the Communication Design realm and the idea of a platform immediately came up.

In order to understand the work behind the curated platform, we need to take a few steps back and look at the project management side of music branding basics.

Initially, I needed to understand if there was enough content available to put it on a platform. I immediately started collecting and categorizing material in Google Sheets, distributing material in the following categories: books, articles, academic papers, podcasts/audio, videos, case studies, music branding agencies and others.

↙ [Fig. 3] Structured Google Sheets file with a collection of global references custom build for this thesis.



	A	B
1	Why do Birds?	https://www.whydobirds.de/en/
2	AMP Sound Branding	https://www.ampsoundbranding.com/
3	Massive Music	https://www.massivemusic.com/en
4	Made Music Studio	https://mademusicstudio.com/
5	DLMDD	https://dlmdd.com/
6	BrandMusiq	https://brandmusiq.com/
7	Ant Food	https://www.antfood.com/
8	Sixiem & Son	https://www.sixiemeson.com/en/creations/
9	Aux NYC	https://auxnyc.com/
10	Sonic Minds	https://sonicminds.dk/
11	Stephen Arnold Music	https://stephenarnoldmusic.com/sonic-branding/
12	Adelphoi Music	https://www.adelphoimusic.com/
13	Sonic Brand	https://www.sonicbrand.com/
14	The Sound Agency	https://www.thesoundagency.com/audio-branding/
15	GWYNNE	https://www.gwynnesound.com/
16	Lexter / efterklang	https://efterklang.org/projects/
17	wesound	https://www.wesound.de/en/cases/
18	human	https://www.humanworldwide.com/branding/
19	SounOut	https://www.soundout.com/solutions
20	Cmoore Sound	https://cmooresound.com/
21	EcholabTV	https://www.echolab.tv/
22	Forsman & Bodenfors	https://forsman.cc/
23	Audio UX	https://auxnyc.com/
24	Groves	https://groves.de/en/

The categorization became extremely useful when writing this dissertation and then choosing case studies that would better convey the usefulness of sonic identities.

The information architecture of the platform is as follows:

1. Homepage: presentation of the educational platform, description of the design pillars of the platform, additional information about the process behind the creation and link to download the complete report.

2. Basic Knowledge: a series of articles that aim to bring to the reader a clearer understanding of the topic thanks to text, images and other multimedia content. Divided into three macro-category and subcategories:

a. Music and emotions
    i. Our connection with music
    ii. Sound & Psychoacoustics
    iii. Music Terminology
    iv. Music Semantics
    v. The perception of music
b. Music Branding
    i. Corporate identity and branding
    ii. Music branding definition
    iii. History of music branding
    iv. Creating a sonic identity
    v. Why Music branding

c. Why Music branding
    i. The value of music branding
    ii. The future of music branding
    iii. Innovation Examples

3. Case Studies: a complete collection of more than 30 case studies with videos and curated comment and analysis. The biggest collection of corporate sonic identities there is. Categorization and filters are available for selecting the intended case study. Case studies are categorized based on date of creation, industry, and quantity of audible touchpoints.

4. About: an explanatory page that gives to the user all the background information on the project and also provides information on how to contribute actively to the platform.

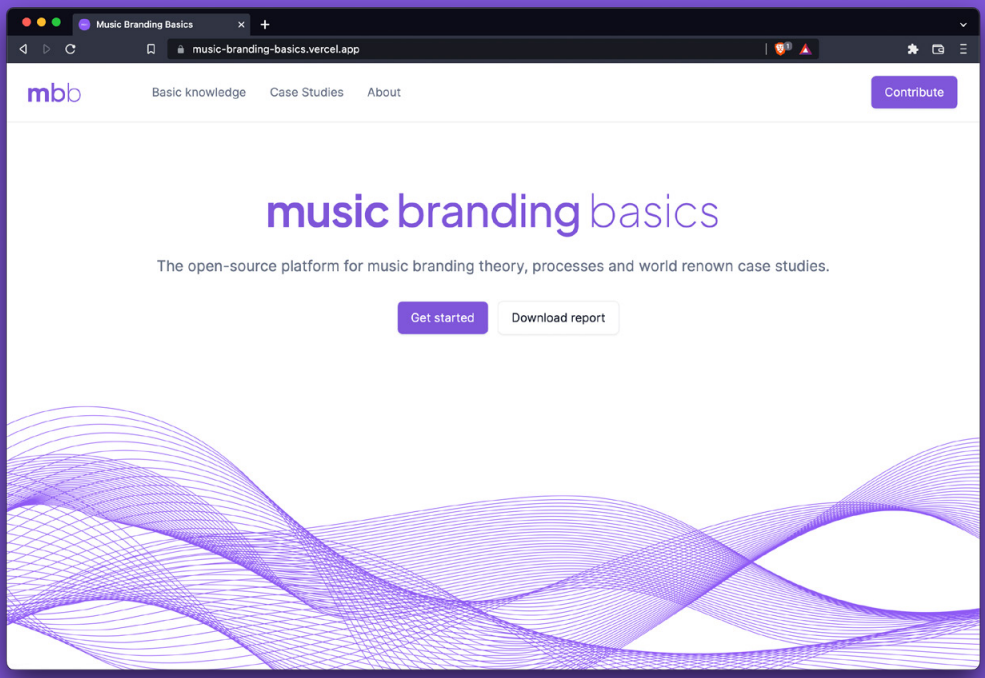
In the Basic Knowledge section you'll find a selection of the content that was developed for this dissertation. The content has been rewritten to fit the medium of destination. The style has been adjusted to the ‘article' format of the platform. While this dissertation (or complete report) remains the most complete work in terms of content, it is also true that articles in the Basic Knowledge sections are enriched with multimedia content not available in the original printed thesis. This allows for a more agile and interactive discovery process of the topic presented in this work.

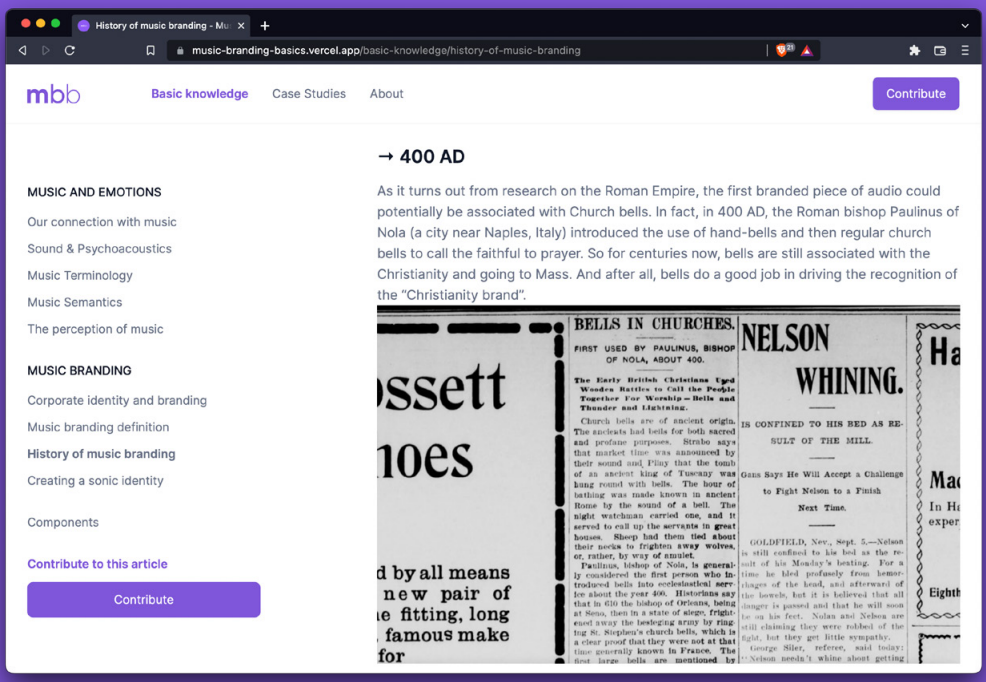
While adding value to the whole work, embedding multimedia content presents a very peculiar challenge in terms of longevity. Online content (especially videos on third-party video-sharing platforms like Youtube and Vimeo) is often subject to review and takedowns. It is very common for a video to be taken down by content creators or platform-editors for copyright violation or other reasons.

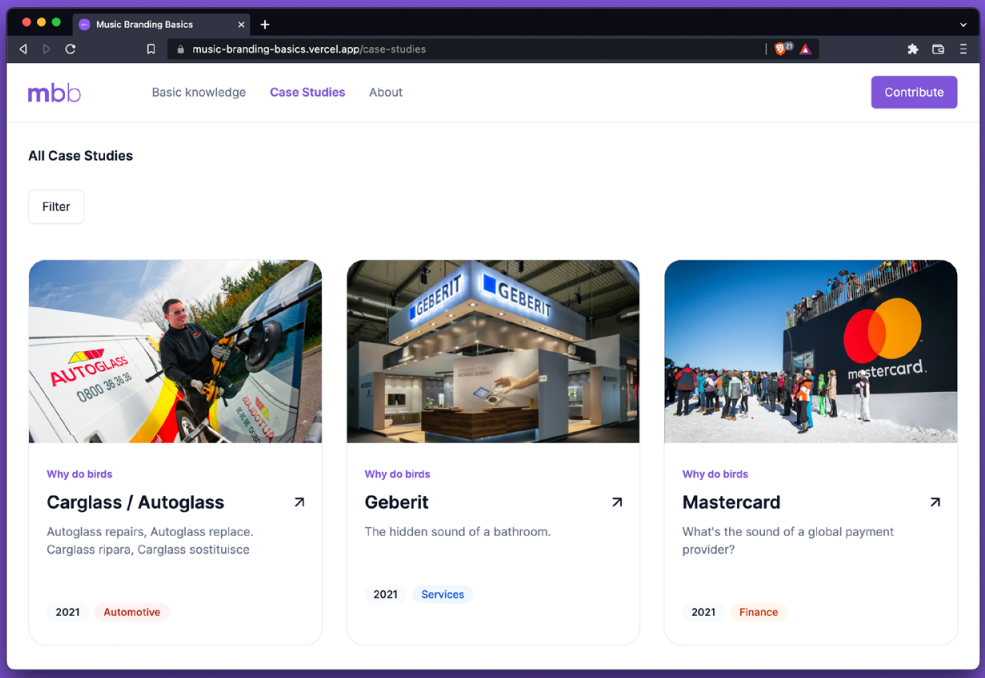
To ensure continuity on the platform, each video has been downloaded and backed up on the github servers. Videos are going to be embedded through regular video-sharing platforms such as Youtube and Vimeo to ensure maximum responsiveness while streaming and a smooth experience while browsing the website. However, if any of the embedded sources might decay in time, they will promptly be replaced by the digital backup copy saved in the Github repository of the music branding basics.

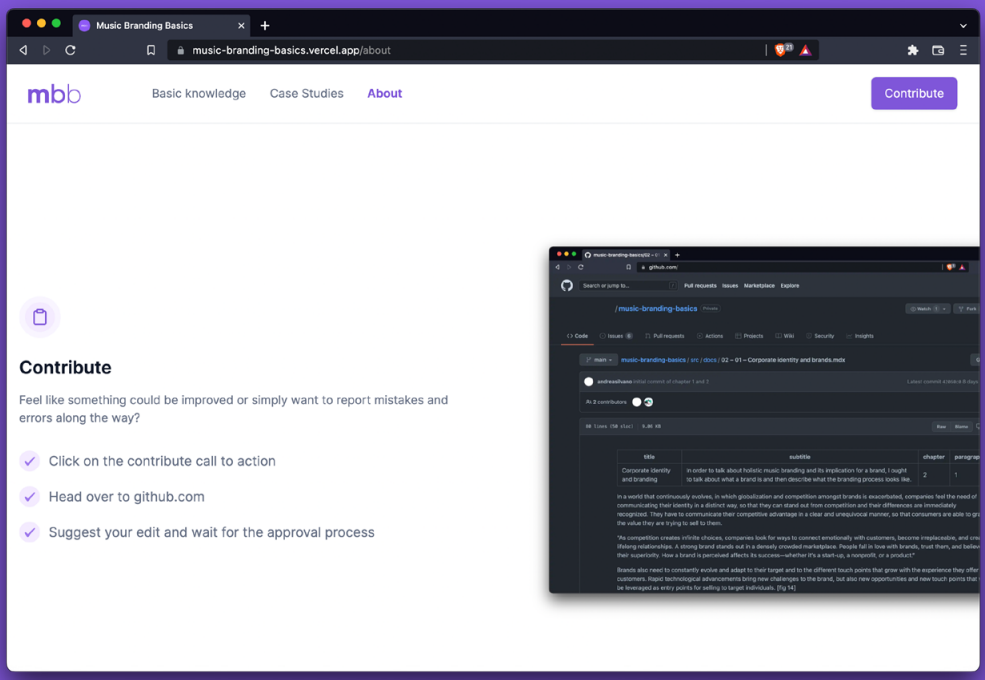
Once again, the nature of the project is and always will be open-source and highly collaborative. The nature of the platform will always be educational and informative. There is no intent to transform mbb into a for-profit platform.
Lastly, the platform has been designed with a mobile first approach. This means that it is available and optimized for any kind of mobile device, besides tablets and desktop standard resolutions.

I do not own any of the content presented on the website, nor I intend to commit any copyright violation by making it available for educational purposes. Any content that does not have the right to be shown on the platform will be swiftly taken down by the owner of the platform.


Music Branding Basics
music-branding-basics.vercel.app
mbb
Basic knowledge
Case Studies
About
Contribute
music branding basics
The open-source platform for music branding theory, processes and world renown case studies.
Get started
Download report


History of music branding - Mu
music-branding-basics.vercel.app/basic-knowledge/history-of-music-branding
mbb
Basic knowledge
Case Studies
About
Contribute
MUSIC AND EMOTIONS
Our connection with music
Sound & Psychoacoustics
Music Terminology
Music Semantics
The perception of music
MUSIC BRANDING
Corporate identity and branding
Music branding definition
History of music branding
Creating a sonic identity
Components
Contribute to this article
Contribute
→ 400 AD
As it turns out from research on the Roman Empire, the first branded piece of audio could potentially be associated with Church bells. In fact, in 400 AD, the Roman bishop Paulinus of Nola (a city near Naples, Italy) introduced the use of hand-bells and then regular church bells to call the faithful to prayer. So for centuries now, bells are still associated with the Christianity and going to Mass. And after all, bells do a good job in driving the recognition of the "Christianity brand".
BELLS IN CHURCHES.
FIRST USED BY PAULINUS, BISHOP OF NOLA, ABOUT 400.
NELSON WHINING.
IS CONFINED TO HIS BED AS RESULT OF THE MILL.
Gans Says He Will Accept a Challenge to Fight Nelson to a Finish Next Time.


Music Branding Basics
music-branding-basics.vercel.app/case-studies
mbb
Basic knowledge
Case Studies
About
Contribute
All Case Studies
Filter
Why do birds
Carglass / Autoglass
Autoglass repairs, Autoglass replace. Carglass ripara, Carglass sostituisce
2021
Automotive
Why do birds
Geberit
The hidden sound of a bathroom.
2021
Services
Why do birds
Mastercard
What's the sound of a global payment provider?
2021
Finance


Music Branding Basics
music-branding-basics.vercel.app/about
mbb
Basic knowledge
Case Studies
About
Contribute
Contribute
Feel like something could be improved or simply want to report mistakes and errors along the way?
Click on the contribute call to action
Head over to github.com
Suggest your edit and wait for the approval process

4.3 Future Developments

Keywords: core features; nice-to-have features; future development; partnerships; keynote speeches; lectures; academic slides; future technical implementations.

It is always useful to prioritize key features and optional embellishments that might make the user experience slightly better when developing a new tool or platform. The core and essential features analyzed in paragraph 4.3 will be deployed with the official release of the platform in April 2022. Other additional features might be implemented after the work is completed. Here's a list of nice-to-have features for the future development of the platform.

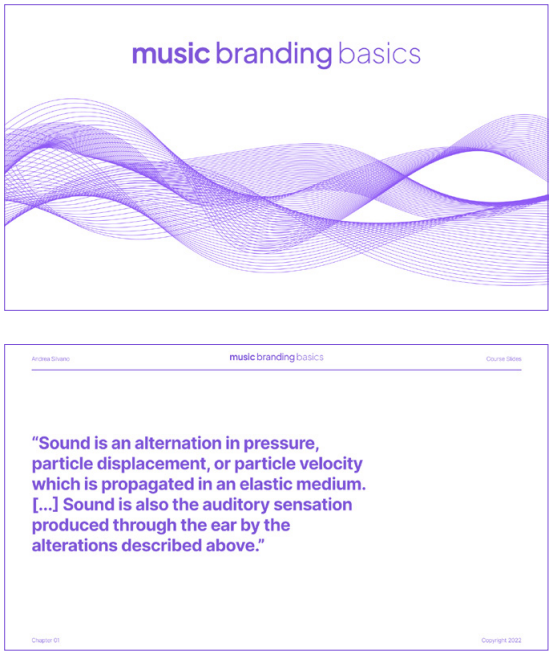
Partnerships

While refining the thesis content, I had the honor of connecting with some of the most prominent industry leading music branding agencies in the world that collaborated with several multinational brands. This gave me the opportunity to verify and compare what my research brought to the table and what they had to say about it given their time in the industry. Without this contribution, this work would have been less interesting and less knowledgeable on current practices, future trends and case studies. I am grateful for the contribution they have provided me during this time of writing and researching, I do not exclude a future partnership with some of these key opinion leaders in the industry to further discuss and deepen the work I have already established today. A partnership between a platform and a music branding agency could be more than beneficial by providing accuracy and by confirming details that are only available to "authorized personnel only".

I am open to any kind of future collaboration or partnership as long as the aim and nature of the project do not change. The mbb platform will always prioritize its availability to students and curious people from around the world that want to learn more about the powerful tool that the practice is bringing to brands and the entire world.

Keynote Speeches & Lectures

As many before me have spoken about the beauty of audio and its powerful effect on people and brands, I strongly believe that Communication designers and Product designers should learn about the benefits of music branding. The nature of lectures or keynote speeches on this topic do not necessarily need to target designers only, but design-oriented and curious people likewise. It would be interesting if this platform could spark conversations about the practice and how actors involved in the process could make it better just by being aware of it. For example, if an Experience Designer is aware of such practice, he/she can possibly think of integrating it while designing a digital experience or at least be aware that such practice might be complementary adopted on the digital product he/she has designed for. Lectures and speeches might be useful to do a bit of knowledge sharing inside the design world and also outside to foster interest in the topic.



↙ [Fig. 8] Keynote template slides for future expansion of educational material.

Ready-to-use academic slides and course

Related to the above-mentioned topic, the creation of ready-to-use academic materials (like slides, course modules, worksheets and multimedia materials) would be essential and beneficial if this topic was to be taught in some academic in-

stitution. The structure of this thesis allows for each chapter to be divided as a module and explained. Of course, it would need refinement and adaptation to a different format, but the starting point for a didactic module is already written in the pages of this thesis.

Interestingly enough, this was one of the first ideas that came to mind when asked about the project of this thesis, but then it made more sense to first create a space from which everybody could potentially learn and interact with the material in an unstructured way and at their very own learning pace.

Future content and technical implementations mbb platform

Lastly, there are some nice-to-haves and future improvements that could potentially be great for the platform.

The first is to write a script for automatically replacing unavailable YouTube or Vimeo videos with backup videos present on the GitHub repository. This would be extremely beneficial for the owner and future editors in order to ensure continuity and always have content available at any time without disruptions.

The second nice to-have-feature, would be to create an auditory quiz in a possible 5th section of the website that would allow users to check if they can recognize sonic identities they might or might now be familiar with. This is a fun introduction to recall and recognizability of distinctive brand assets.

The third implementable feature would be to open a blog section and build a community around the platform itself, in order to support it and make it grow. This feature could allow for a more interactive way to explore and compare ideas and to discuss with people topics related to the practice.

Any recommendation is highly welcomed and each comment will be appreciated, and any contribution from a content perspective will be greatly accepted.

I am looking forward to seeing what the world thinks about music branding and how it impacts their lives.

5. Conclusion

Conclusion

The last chapter of this work aims to highlight research objectives, how my research contributed to the academic panorama and what I have learned from it while researching and designing the final output.

The journey that guided the reader through the discovery of music branding rightfully starts with the analysis of the word music. It develops with the understanding of the relationship between music and human beings, then turns into a scientific analysis of sound psychoacoustics. Later, the thesis explores music terminology, semantics and the perception that humans have when they hear specific melodies. The key ingredients analyzed in chapter one are the key to uncovering the definition of music branding and a wonderful historical timeline of the practice, up until the creation of a sonic identity and the definition of a new era for the practice: music branding 2.0. In conclusion, this work also analyzes the direct economic value brands can draw from the employment of music branding within their companies, what the future of the industry looks like and what new technology might help designers and sound strategists building future experiences in the realm of music branding. A complete transcript of interviews with key opinion leaders in the industry is also available in the dissertation.

The goal of this thesis was to assess the current status of the music branding industry, define music branding 2.0 and understand what the future of the practice will bring in terms of benefit to both companies and designers alike.

Thanks to unpublished interviews and incredibly up-to-date academic papers and industry reports, I think this work sets the foundations for a true definition of the new era of music branding. It also coined a new terminology, such as music branding 2.0, to indicate a paradigm shift in the way consultancies and companies are building sonic identities and distinctive auditory brand assets.

Another key insight that this work uncovers is that visual, experience, interaction and communication designers would sincerely benefit from a general understanding of such topics, since they are linked directly to the digital experiences they are designing for. By gaining knowledge of music branding processes and sonic identities, they could potential-

ly promote the use of more cohesive and impacting coordinated sounds in digital and physical experiences. Experience designers are the cornerstone of digital experiences and they are shaping how the digital and physical interaction with the products we use every day is going to be. Given the shift toward a more mature and widespread use of audio technologies and audio as a communication and advertising tool, it only seems logical that designers should look into this new realm of design challenges and opportunities.

This is why the music branding basics platform was created and why it is so important to have an up-to-date hub of auditory experiences in the world of brands. Of course, the educational goal of the platform also extends to non-designers and curious audiophiles.

The real goal of this work is to provide a strong enough background for people to understand how the practice works and may spark initial conversations of integration in their current workflow. I am aware that the research presented in this work might result sometimes partial and not complete, in fact, my ambition was never to be exhaustive about the topic presented, but to give a clear enough introduction or explanation of all of the topics that revolve around music branding. In doing so, one must be careful about what is essential to be said and what might just be examined in depth with other tools.
I am sure that if others find this work exciting or interesting, they will try to expand and build on this initial exploration of music branding 2.0.

The journey with music branding basics has been wild and very unexpected for me. I carried out this research for nine months while working a full-time job as an Experience Designer in a global creative and design agency in Milan. When the timeline is very compressed, understanding what to prioritize becomes key in order to manage to conclude the work.
I am extremely grateful to my thesis supervisor, professor Francesco E. Guida, for finding the time to always keep me on track with bi-weelky reviews and many suggestions on how to frame and develop the thesis' topic. If it's true that working full-time while graduating still remains a complete mystery to me, I am also grateful for all the time-management and design skills acquired in my time at the company I work for. These skills have been a great aid in organizing and carrying on research work.

Lastly, I want to conclude by stating that writing this thesis has been incredibly rewarding from a knowledge perspective. There has always been something fascinating and charming waiting for me in each paragraph. Great scientific discoveries found in academic papers, beautiful work done by companies or consultancies in the realm of brand experiences or interesting new and emerging technologies being used in crazy exploration projects. These are all opportunities that helped to broaden my horizons for the world and I will always be grateful for this. I truly wish that this process of continuous learning never stops in my life.

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The masking experiment.
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Same noise and same signal.
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[Fig. 13]
Same noise and phase-shifter signal.
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4

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