

Project Proposal Dissertation

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The Music in Its Various Shapes

Executive summary

There are differences between the music that amateur producers are producing at home for fun, producers who are doing it for passion, producer who are doing it for money, producers who are doing it so to let everyone know what they are feeling, sharing a sense of solidarity.

The interests for humans to share the life experiences through art has always been a desire of each one, artists use art to do it.

Music can be a bridge that connect the individuality with the all, that is why it is important that the music for this project is seen like something really personal but at the same time it uses the language, codes of nowadays age, making it collective as well.

The artist want to stay truthful to its life experience therefore the art that he feels. People makes music and does art because it is the only way to express what we witness in our everyday's life emotionally and intellectually. Music has always been a fundamental part of our life and has been used in different environments for different purposes.

The music as art.

Music as background in many art exhibition is strictly related to art. live painting for example it is something that expands everyday more and more in every directions.

The music as meditation

The human body is a radiant machine considering that we are composed mainly of water it is interesting to see what frequencies does to our body. they vibrates through our molecules decoded by our brain evoking or bringing to life stationary and different emotions, reason for which it is largely used in therapy and meditation that are very much related in psychoanalysis.

The music as entertainment

very diffused in the whole world but especially in Europe, in terms of business, where you find thousands of festivals and live concerts every year. This is the big part of the music business and it is where the most money are. Internet can be described as the platform that manage any movement.

The music as culture and religion

Music always existed as soon as human stepped on earth, documentaries, movies, battle cries, festivity and celebration, moments of mourning. in every day life different musicality, harmonies, melodies, frequencies has been perceived and often simulated for various reason. Music is life and it can be more than what we think. That is what music in its various shapes will try to tell and shows. and

Project content suitability

The project present a written documentation a 5\6 track EP called "music in its various shapes EP". The EP demonstrates the art of drawing emotions through notes and the documentation should fulfil the reason behind this affirmation.

The audio content as the work flow has been structured as following in order to reach the prefixed aims; for instance...

1st track; song title;

Tempo_Cascade:

| Technical aspect. | Creative aspect. |
|--|--|
| Channel strips Percussions Instruments EQs Dynamics Microphone choice/techniques Effects Distortion Mixing choices Synth Vocals | Energy delivered Language Sate of mind/attitude Colours Progression Moral/meaning |

What the tracks in the EP are meant to create/evoke seems to be the principal question of this project. Further studies demonstrates that there is a reason behind the fact.

Project meaning

The meaning of this project is to offers different point of view and prospective on how the music is used and perceived in our century, the 21st, according to the Gregorian Calendar. More than often especially in Europe the studying behind what music can be and do to humans is still an unknown field. We know that music is used in different environments, each track of the EP will try to project the listener in each of those. The result should be an experience that goes over the common knowledge of music as we use to know so to show its potentiality and importance. A questionnaire will be presented in order to see if ambient sounds can trigger memories that conduct the listener in its own life experience but that it might be picked up from a collective consciousness formed by signs cultures believes and religion. Studies shows that the process of decoding sounds as emotions is an imprint that comes from the limbic system that is formed in the embryo when the brain is still generating. Researches and studies in the project are meant to support the fact.

Research

Researches will be done over books, web sites, word to word mouth to mouth, interviews and newspapers, all to support the documents in the project.

Some topics like (music behind science and medicine), will required people studies and experience in order to be reliable and efficient.

Music In its various shapes

Music as entertainment

We all know what we mean by entertainment, especially when we speak about music. In Europe it is really common and commonly expansive to go to festivals, clubs, live concerts, live music pub/restaurant.

Music business it is all about money, marketing, networking, advance technology and sharing, but why someone should buy your music ?.

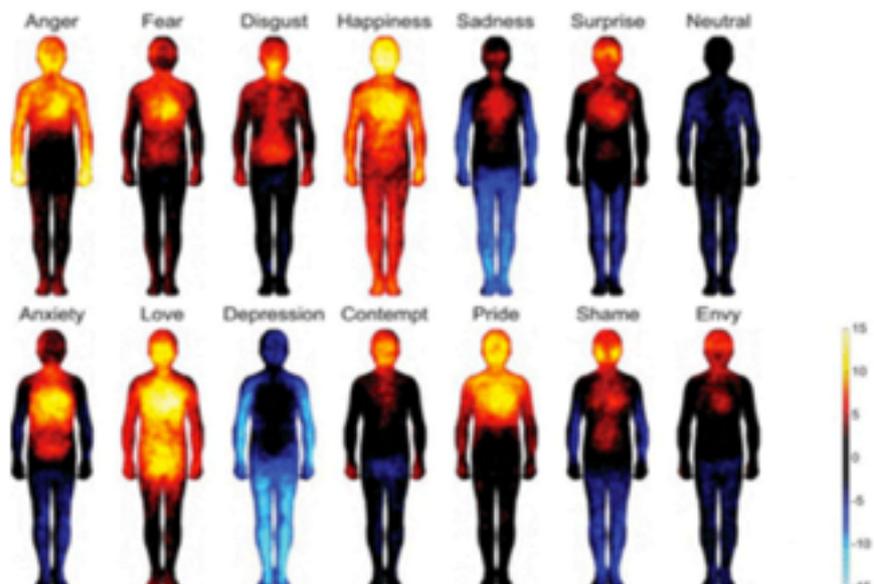
Millions and millions of paper and internet magazines talk about your favourite artists everyday, what is he doing, what are the next places where he will be playing so on and so forth...music is something that makes you feel, you experience something emotionally and often visually in your mind, therefore it has a value yet to be estimated. (Nicola Riches, the music bible)

The people who are working behind the scene like producers, beat makers, engineers, managers, promoters, sound designer, lighting designer are big teams, there to satisfies your expectations. As a matter of facts you can find pretty much any tastes you will want to find, if there is none, a new artist or producer will come up with it, maybe you.

These people have spent the biggest part of their life thinking about music, studying what it does how they can use it. (Susan Schmidt, 2003)

As we move forward we trying to discover different sounds so to manipulate them and see what is the emotional response to its. Sounds we perceives can often reflects the way we live...the way we buy, sleep and sometimes even think. In music, as entertainment every-one knows before hands that, when we are looking for a particular sound we are trying to set ourselves in a particular mood, if the music can do it, you will like it and maybe buy it. in the same way music it is not illusionary, it is something we perceive "Without music, life would be a mistake." F. Nietzsche. It is not something you can get rid of, you perceive and interpret it biologically and cognitively.

this figure shows different temperatures on different emotional responses.
(Wired UK, 2016)



Music culture in different countries

Before starting to say anything about the EP there are influences coming from countries with different traditions and cultural backgrounds; For those locations, music and its roots must be understood.

As mentioned before, music had different values and use in different countries. This is because many events in history changed its perception, from people who were producing it and for everyone else who was listening to it. Below there is a listing of some of the countries and genres/styles that mainly influenced “Music in its various shapes EP”.

| Countries | Genres |
|--|--|
| Africa Australia America France Spain Italy Germany United Kingdom Gypsy music Romania Hungary Russia | dance; club dance; breakbeat; bro step; deep house; dubstep; garage; glitch hop; house; jungle; drum and bass; techno; trap; ambient; baseline; downtempo; electro; electronica; EDM experimental; Industrial; trip hop; hip hop; old school rap; turntables; underground rap; contemporary jazz; classic jazz; smooth jazz; acid jazz; fusion; blue note; New age environmental; ambient; healing; meditation; nature; relaxation (Mark Weidenbaum) pop rock; contemporary R&B; funk; Motown; Neo soul; soul blues; reggae; dub; acid rock; rock and roll; afro beat; south african; acoustic blues; Chicago blues; classic blues; contemporary blues; electric blues. most of the countries developed though cultures and traditions the so labeled musical genres. (Music Genre List, 2016) |

The genres aims to indicates the attitude or the energy used to translates certain emotions in order to set the listener in a particular mood that is meaningful to him/her life experiences. In other words “Music in its various shapes EP” is the vision and interpretation of a mixture of genres that has directly affected the producer to the way he perceived and produced its music in order to evoke, through sounds, feelings, moods, images and reactions, abstract and not. In the same way there is a hope that, feelings, moods, images and reactions, are reflected into others as well. Not every genres has been mentioned as the understanding comes only for those styles/countries that gave and emotional feedback to the producer which had marked the creative process of the EP .(Mehta, 2016)

A quick look through some of the countries that made Music in its various shapes what it is

Africa;

By analysing what is the attitude and the styles used for the EP, Africa is the country where music has played a role not interchangeable. No better countries could have been chosen for the purpose, also it is the country that has the more influences and styles from other cultures.

Africa is a vast continent, the traditional music is ancient, rich and diverse because of the many traditions it had. Most of the music has been passed orally. In Sub-Saharan African music traditions it mostly employs percussions, such as xylophones, drums, mbira or thumb piano. African music has influences from American and Caribbean genres like Soca, Calypso, Latin American music, Bachata, Denizen, Samba, Rumba, Salsa, Tango, Cumbia, Bomba del chat, Mambo, Merengue, Reggae, Compass, Monger, Son Guaracha Punta, Chachacha, Piena, Conga and clave rhythm founded in the music of enslaved Africans turned into African popular music. (Titon, 1984)

AFRICAN MIDDLE EAST

It is influenced by Middle Eastern music and utilises similar melodic modes (maqamat). North African music varies from music of ancient Egypt to Berber and Tuareg music of the desert nomads. Arabic and Andalusian music finds his contemporary genres along with Algerian Rai. Algerian Rai, is very common in France, Spain and other parts of Europe; This is a mix between Western and Beduin music. The Malouf is the Arabian music of Constantine and is also well known in Tunisia and Libya but the best known and diffuse in North Africa is popular music that mainly came from **Egyptian**. (Jones, A. 1961). Music of Sudan and Horn of Africa includes music from Eritrea, Ethiopia, Djibouti and Somalia. Somali music is typically pentatonic, using five pitches per octave in contrast with heptatonic seven note scale such as the major scale. **Arthur Morris Jones, was a musicologist and a missionary that worked in Zambia**, studying the African music and his rhythmic structure. The British Library sound archive, (The British Library, 2016) still contains some of his recordings; Music, discussions and ambient sounds. He observed that the shared rhythmic principles of Sub-Saharan African music traditions constitute of one main system. The rhythmic principles of Sub Saharan African. African traditional music is often functional in nature. Performance are long and involve the audience. Music of Sudan and Horn of Africa includes music from Eritrea, Ethiopia, Djibouti and Somalia. Somali music is typically pentatonic, using five pitches per octave in contrast with heptatonic (seven notes) scale such as the major scale.

The music of the Ethiopian highlands uses a fundamental modal system called Genet, they are [songs of reminiscence](#)*. He observed that the shared rhythmic principles of Sub-Saharan African music traditions constitute of one main system. The profound homogeneity. African traditional music Performance are long and involve the audience. [songs accompanying childbirth, marriage, hunting and political activities. Music to ward of evil spirits and to pay respect to good spirits, the dead and the ancestors.](#)*

The Eastern region includes Uganda, Rwanda, Kenya, Tanzania, Malawi, Mozambique and Zimbabwe, Madagascar, the Seychelles, Mauritius, and Comor. Still the influenced of the music in these cities is Arabic but also Indian, Indonesian, Polynesia.

So indigenous musical traditions are primarily in the mainstream of the sub-Saharan Congo speaking peoples. The southern region includes music of south Africa, Lesotho, Swaziland, Botswana, Namibia and Angola. The central region includes music of Chad, the central African republic, the democratic republic of Congo and Zambia and Pygmy music. (Jones, A.1961).

Western African music includes the music of Senegal, Gambia, Guinea, Guinea Bissau, Sierra Leone, Liberia of the inland plains of Mali, Niger Burkina Faso, the coastal nations of Cote D ivories, Ghana, Togo, Benin, Nigeria, Gabon and the republic of Congo.

Southern, Central and West Africa are similarly in the broad Sub-Saharan musical tradition but draw their ancillary influences primarily from western Europe and North Africa. Influence on North American music. White American find his roots in Africa, Irish and Scottish settlers merged with African musical elements to become old-time and blue grass among other genres. (Titon, 1984)

African music shaped what is [Blues and Jazz](#) all this sounds and rhythms are [borrowed from Africa, brought over the ocean by slaves](#). In Sub-Saharan Africa is mostly upbeat polyrhythmic and joyful, the blues should be viewed as an aesthetic development resulting from the conditions of slavery in the world. In [1970s Remi Kabaka](#), afro rock avant-garde drummer, laid the initial drum patterns that created the afro rock sounds in bands such as Ginger Bakers.s Airforce, The Rolling Stones, and Steve Winwood's traffic, Paul Mc Cartney and Mick Jagger. Certain Sub-Saharan African musical traditions also had a significant influence on the Disney work "The Lion King" which blend traditional music with western music, Zulu and English lyrics. Disney incorporate numerous words from the Bantu Swahili language. for instance, Hakuna Matata means no worries. (Lionking.org, 2016)

The musical Instrument in Africa

The family of percussions are very important they are used as a means of communications, in fact much of their history and culture have been passed on for generations through music. Music is used to teach, tell stories and for religious purposes*.

Musical instruments are made of [anything that would possibly produce a sound](#): Finger bells, flutes, horns, musical bow, thumb piano, trumpets and xylophones.

History

One of the earliest representation of African music dates back to 6000 BC.



The figure represents music and dance in Africa.(Encyclopedia Britannica, 2016).

Musical instruments were made of vegetable materials so most of them did not resist in our century but most of them today are probably still the same or more elaborated.

A.M. Jones english ethnomusicologist proposes that Indonesian settlers in certain areas of central east and west Africa have introduced certain Tonal harmonic system, equi-pentatonic and pelage scales into Africa. The meaning of words largely depends on tone and pitch and so for instruments that suggest meaningful phrases of the spoken language. this is normally not seen from outsider listeners. cit "Certain instruments are solely for song accompaniment, the interplay between voice and instrument is often intricate and delicately balance.

The instrumental melody was influenced by the tone requirements of the song's lyrics, the tuning of the bow determined the vocal scale to which the singer conformed.

Today when Zulus use the western guitar the same antiphonal relationship and mutual interdependence between voice and instrument is maintained.” (Encyclopedia Britannica, 2016).

There are many different Music instruments in Africa such as Idiophones sounded by striking sharing scraping plucking or friction, rhythmic idiophones, sounded by shaking, (stone clappers, rock gongs, wooden clappers, percussion beams, bottles, clay pots sometimes partially filled with water). Slit drums can be rhythmic and melodic with four different pitches. Xylophones, mainly two types, one with unattached keys and the other with fixed keys. There are 40 different xylophones of six different sizes. Lamellaphones (thumb pianos) set of tuned metal or bamboo tongues of varying length fitted to a board box, calabash resonator. Membranophones, Chordophones, Musical bows, Lutes, Fiddles, Lyres, Harps, Aerophones, Flutes, Reed Pipes and Trumpets. (Encyclopedia Britannica, 2016) In United Kingdom the music culture has been yes influenced by Africa as it happens for the rest of the western and maybe the whole world but it seems to have a particular sensitivity to “Bass Music”. The bass music culture consist in genres like; jungle, drum and bass, dance, club dance; breakbeat; bro step; dubstep; garage; glitch hop; baseline; downtempo; electro; electronica; IDM experimental; Industrial. England has also shown and developed particular interests to genres like Dub, Reggae, Afro Beat, Jazz, Fusion, Trip Hop, Hip Hop, Old school rap, Glitch Hop, Ambient, Funk, Turntables, Old School Rap, Rock, Punk, Punk Rock, Underground Rap. When focusing on Bass Music or electronic dance music EDM in particular we often refer to Djs as well. Bernardo Alexander Attias, Anna Gavanas, Hillegonda Rietvel wrote a book that reveal to us what are the secrets behind Djs. “how do dance Djs perceive their role, their music their career prospects what does the Dj do, to make our secret fleeting moments on the dance floor so special?” (Bernardo Alexander Attias, Anna Gavanas, Hillegonda Rietvel, 2013).

Genres such as Dub Step Drum and Bass, Trance, House Music, Techno, Garage shatter into a myriads of sub-genres often referred as Electronic Dance Music abbreviated to EDM.

The sound of electronic music has been shaped and developed to evolve in very unique and original styles that made most electronic producers really original in their sounds and attitude. The technology or digital audio processing and the introduction of analog and digital synthesiser allowed Producers and Djs to discover new production techniques and live performances showing new ways for the audience, other Djs and producers to approach music. Electronic Music can be seen as the relationship to the alienating effects of computerised and accelerated globalisation.

For instance EDM music hardly goes under 120 BPM (beats per minutes) keeping the pace of the heart beat rate of a person in exercise. Although instruments are often introduced into this kind of productions the distinctive dominance of analog or digital sounds and baselines that are programmed into repetitive beats. The repetitive rhythmical structures often comes from Jamaica. (Belle-Fortune, 2004); (Bernardo Alexander Attias, Anna Gavanas, Hillegonda Rietvel, 2013). The purpose of the Dj is to produce a seamless beat matched mixed that keep the audience hypnotised. The genres mainly depends on musical preferences of the participants on the dance floor and they might vary in BPM and

sound frequencies behaviour. The Dj is a “component in a network of relationships between the participants, music culture and entertainment business”(Ferreira, 2008).

Biology & Anatomy Lead To Psychoacoustic; The Origins.

Dr. Clotaire Rapaille is an expert in Psychology, Marketing, Sociology and Cultural Anthropology, and explain how the brain works because of its structure.

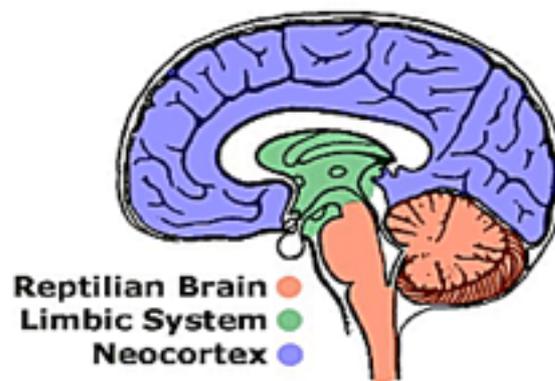
The right question to ask in trying to understand music’s universality is not what all musics have in common but how they differ.

There is a theory developed according to the anatomy of the brain.

This theory is called “The three brains theory” .

*The Reptile brain
The Limbic system
The Neocortex*

The Evolution-Designed Brain



The Reptilian brain

So called because theories says that we belong from reptiles, they still reflect our inner lizard and we share many treats like:

The yolk sacs

The sac provides embryos with nutrients

Yolk sacs developed 300 millions years ago when the first amphibian moved to earth.

Resilient skin

300 millions years ago reptiles developed a new skin that would survive to dry air on land, a watertight barrier of dead skin cells which rested atop a layer of fresh, living cells. We inherited that same layering system. (Mental Floss, 2016)

Ears and sense of hearing

Three bones in our middle ear help amplify sound. Amazingly, two of those bones are part of a reptile’s jaw. The fossil record indicates that over 200 million years ago, those two jawbones started receding back into ancient reptiles’ heads. Hadrocodium, a small mouse-like creature that descended from reptiles some 190 millions year ago, was one of the first critters to inherit the special three-boned ear.

Big brains

The big brains is due to the fact that reptiles and mammals developed a better sense of hearing because they had to process more informations so the brain started to grow.

Our teeth

we don't look like it but we simply inherit the genes that make them possible. One gene has a lot to do with all of these transformations—EDA. EDA controls how many teeth you have, what those teeth look like, how hairy you are, and how soft and sweaty your skin is. It's believed that mutations to EDA in ancient reptiles helped us inherit our body's current blueprint (Mental Floss, 2016)

The Three Brain Theory

The Reptile brain is most likely to be the one that command our instinct, it is the command centre for your physiological functions, conducting the rhythm at which your heart and cells pulsate. The Reptilian brain works subconsciously, if a person is in coma he can still conceive, gestate, and give birth.

The Limbic system controls emotions and memory, including the thalamus, amygdala, hippocampus, and pineal gland, through hormones secretions, your limbic systems guide your physical experience, including your circadian rhythms and the capacity of your nervous system, it is a bridge that connect your thinking in the Cortex or Neocortex and the Reptilian Brain, (physical brain).

The Limbic imprint, is the human capacity to memorise on a cellular level all the informations from its surrounding environments during 9 months of gestation, birth, and the first few years of life. Every fluctuation of the mother's hormonal, physical, emotional experiences are registered by the fetus and non-cognitively recorded in its developing nervous system. These early impressions and sensations remain with this person throughout their entire lifespan. It is like a basic setting, a default setting that it can be consciously changed later on in life. The limbic Imprint is your emotional nest. That is why people tend to recreate that sense of "comfort zone" in their life, even if it is painful or unpleasant.

A.Einstein: "We can not solve a problem with the same mindset that created that problem in the first place". We, the people, have 250 wars going on right now around the globe. We created life-threatening levels of environmental pollution, political systems that don't work, economies that are not capable of sustaining us and social strategies that ignore us. We are, clearly, due for some changes. If we truly understand how we created this mess, we have a good chance to un-create it.

We can not thrive as a species, unless we create a new generation of our kind that is not damaged in utero by the high level of stress hormones cortisol in mother's blood stream. As I say: "It's much easier to make good new people then try to fix the old ones". If their basic settings will not be on "anxiety", "pain", "fear", but will be, instead, set on 'high': "love", "safety", "deep connectedness", - then we, the people, will truly have a chance (Birth Into Being, 2016)

The Neocortex or Cerebral Cortex, it is were the rational thinking happens. When new ideas inspires cognitive connections your cortex physically changes through your brain making more neural connections as your pattern of thoughts change. This part of the brain is fully flexible until the age of around 25. lately new studies says that it is possible to change the cortex at any age. (Tonetti-Vladimirova, 2014)

THE POWER OF THE BRAIN

I believe that the understanding of how the brain works is fundamental for music therapists, music producers, musicians, engineers and artists in general whether these people decide to be professionals.

*Music does much more than what people think on the average. Because of the theory that we just discussed about the **Limbic Imprint** we know that the way we perceive the world comes from our ancestors, so we could say that the music we make reflects widely what we are in this century, in other words those frequencies resonates within us. It seems to be like a code that our brain understand in a way that allow us to translate it to certain emotions. This makes us conscious to a certain extent of what we feel. It is now experimented that music brings many long terms benefits as we will discuss in part in the chapter "Music Therapy" and "The benefit of music". The purpose of "music in its various shapes" documentation is to make people aware of the benefits that music can bring.*

Music can affect our brain chemistry, the history between music and humanity can help to understand our musical choices. (Daniel Levitin, 2008). Dr. Clotaire Rapaille tried to decode the marketing strategies behind multinationals that own the world. "The big brands", people that works for them (sellers, marketing managers, graphic designer etc..) knows perfectly how the brain works in order to attract your attentions without you even realising it by stimulating your reptile brain, unconscious decision making. His knowledge of the brain functions and cultural archetypes was so precious that he has been invited to work for big multinationals, organisations and companies. Dr Clotaire seems to have developed an interesting theory by saying that, reptile brain always wins, you can not turn off your instinct but you can be aware of this and therefore act upon it.

From the facts above explained we know that how we translate every listening experience from what we have been influenced from our life.

What the listener share with everyone ? We do not know what exactly makes you feel good or sad or joyful but we know that we label those feeling as so.

Most of the law that the musical language has are not laws in the physical sense but only conventions (ex laws of harmonies) that musicians has simply agreed upon.

The working method adapt by the composer is an arbitrary law, (Jhon Booth Davis, 1980). The fact that music laws are only conventions is fairly extreme considering that if you want to communicate through art certain emotions is proven that you need, to a certain extent, constraint. Music upon different times of the days, music upon different jobs, music for different situations suggest us that you would listen to a type of music based on different feeling you might have, on the other hand to change or deviate your current feeling toward something that you would consider more beneficial. This concept is a modernise way of listening to music, as we can be influenced virtually from internet in a much faster way compare to the 20th century. Some people doesn't like music in general, for example some children dislike music lesson and if the objective value of music has to be considered this must be taken in consideration. Also the "bringing of nations together in song seems to occur at least as much in times of war as in times of peace, mass singing accompanies the worst conflicts that this planet have seen".

cit "Can we describe as communication something which produces dissimilar effects in different people, produces none or very weak reaction to some?"

There is no answer on this, as there is no real physical distinction from noise and musical sounds if not the way we perceive it, your music could be someone else noise and vice versa. (Jhon Booth Davis, 1980)

A QUICK LOOK INTO "THE SOUND"

What we refer to sound is more specifically; vibration. Sound is the subjective end-product of vibrations impinging upon the mechanism of the ear.

There is no sound until we hear it, in the same way colour only exist because the eye uses colour to help the perceiver to organise and interpret a diverse pattern of electromagnetic radiations reflected from objects.

In other words music exist only in the ear of the listener.

There are different type of vibrations that our ear can detect in order to give a different emotional response. A recent study says that tones above 5000Hz, are unmusical because pitch perception become difficult for the ear. 19Hz is the lower for pitch perception, the bottom note of the piano offers 27,5 Hz. frequencies employs in music are discreetly located and precisely located.

Whereas noise may contain many aesthetic or accidental deviations from the tones present in the scale. The frequencies presented in musical sounds give particular effect of dissonance or consonance as a result of the way different instruments blend together.

The frequency spectrum of noises does not normally suffer from such aesthetic constraints and is largely accidental.

One instrument produces not one but several tones and frequencies, a musical tone is a steady periodic sound. It is characterised by duration, pitch, intensity (or loudness), and timbre (or quality). The notes used in music can be more complex than musical tones, as they may include aperiodic aspects, such as attack transients, vibrato, and envelope modulation. (Roaderer, 1977)

1 The primary excitation mechanism is activated by the player, the air stream blown against a wedge in the flute, the reed in a clarinet the players lips on a brass instrument or the vocal folds in the larynx, this excitation mechanism works as the primary acoustic energy source.

2the fundamental vibrating element excited by the primary excitation mechanism, The vibrating element determines the musical pitch of the tone and provides the upper harmonics needed to impart a certain characteristic quality of a timbre to the tone. Many instruments have an additional resonator whose function is to convert more efficiently the oscillation of the primary vibrating element into sound vibrations of the surrounding air so to give the tone its final timbre.

Music is made up of tones whose physical characteristic change with time in a certain fashion. It is only this time dependence that makes a perceived sound musical in its true sense. In general we shall henceforth call a time sequence of individual tones or tones superpositions a musical message.

The musical message will be meaningful if it carries information that in some way elicits reaction in our brain that goes beyond merely noticing that triggers a series of brain operations involving analysis association with previously stored messages, storage in the memory and emotional response. A melody is the simplest example of a musical message, meaningful messages are key elements in western music.

One characteristic of a melody is a succession of tones proceeds in discrete finite steps of pitch in practically all musical cultures. This means that our auditory system prefer certain frequencies above others, even when we are able to detect frequency changes that are much smaller than the basic step of any musical scale. Also because the neural mechanism that analyses musical messages pays attention more of the transition of pitch (Roaderer,1977)

the ear is less able to distinguish small changes in volume with pure tones. The first phenomenon is that frequency extremes are not heard progressively louder or softer with increased or decreased volume. The higher and lower frequencies are simply not registered until they reach a certain loudness level (threshold). In other words, when listening to a recording that contains all sound frequencies, if one starts at a low volume level and slowly turns the volume up, one will not consciously hear the frequency extremes until they reach a certain volume level.

"With the high frequencies, this effect begins with the important overtones around 2000 Hz. We also found that the higher the frequencies, the louder the volume has to be for one to register them. Perception of the extreme lower bass frequencies is similar but more complex, since upper bass frequencies are heard proportionally louder at lower volume levels.³" When the sound contains a greater range of frequencies, people hear changes in the equalisation with small changes in volume.

our ability to perceive changes in volume is most sensitive in the frequency ranges that we hear loudest; most of the our much-touted sensitivity to even very small volume changes is not a recognition of degrees of loudness, but rather a recognition of changes in the quality of the sound and an awareness of degrees of irritation, i.e., whether the sound becomes more or less irritating; and our hearing is more forgiving of distortions in equalisation at low volume levels than at high volume levels is due to the absence of those high frequencies that are below our threshold of hearing. (Anstendig.org, 2016) " Said before that the body resonates with external sounds that strikes it; Depending on our emotional and physical state we hear differences in loudness, if our body is in tension the muscles will act as dampers not allowing the frequencies to resonates as they would in a relaxed body with relaxed muscles in which, one hears louder when is relaxed. 2000 and 4000 Hz, cause the strongest physical reactions in us, generally in the nature of physical tensions. This explains why women, who are more sensitive to high frequencies than men, often complain that loud recorded music makes them nervous and irritable. (Anstendig.org, 2016). With unequalised recordings, the unnaturally exaggerated frequencies between 2000 and 4000 Hz stimulate physical tensions and other bodily and mental reactions in the listener which degrade the way the listener actually experiences the emotional content of the program material. One hears the emotional content of the original combined with and falsified by one's own bodily reactions to the irritation caused by those frequency peaks. One literally hears and experiences a combination of the expressive content of the original and one's own unrelated and quite different bodily reactions to a physical irritant. If one is listening to

music that has a particularly fine expressive-emotional content, either one will not experience the emotion at all or one will experience a quite different, coarser (less fine) emotional content that bears similarities to the original, but is, in reality, quite different. Equalisation eliminates this problem because restoring the original frequency balance eliminates the irritating peaks". (Anstendig.org, 2016)

The Benefit of Music

and quotations from various important studies :

'Music can affect our brain chemistry, the history between music and humanity can help to understand our musical choices "



fig 1.1

Clifford Geerts says that the right question to ask in trying to understand music's universality is not what all musics have in common but how they differ.

"singing together release oxytocin a neurochemical now known to be involved in establishing bonds of trust in people." Kosfeld, M., Heinrichs, P. Zack, U Fischbacher, and E.Fehr 2005 *Oxytocin increases trust in Humans, Nature 435: 673-676*

"Without rhythmical coordination of the muscular effort famous

monuments could not have been built."

Mc Neill, W.1995. *Keeping together in time: Dance and Drill in Human History*.Cambridge, MA: Harvard University Press, p.55

"Those who enjoyed singing, dancing and marching together so much that they were drawn to it, attracted to it and practiced it for thousands of hours were those who were the victors in any battles in which such drill conferred an advantage."

" Rappers interpret and articulate the fears pleasures and promises of young black woman voce have been relegated to the margins of public discourse "

Rose, Tricia. 1994. *Black Noise: Rap music and black culture in contemporary America*. Hanover, NH: Wesleyan University Press, p146.

"Although there do exist discrete pleasure centers in the brain dozens of neurotransmitters and brain regions contribute to feelings of pleasure."

Huron, D. 2005. *The plural pleasure of music. Proceedings of the 2004 Music and Music Science Conference*, edited by J. Sundberg and W. Brunson. Stockholm: Kungliga Musikhogskolan & KTH, p.2.

"The level of melatonin, norepinephrine and epinephrine increased during a four week course of music therapy"

Kumar, A. M., Tims, D.G. Cruess, M.J. Mintzer, G. Ironson, D. Loewenstein. et al (1999). *Music Therapy increases serum melatonin levels in patients with Alzheimer's disease. Alternative Therapies on Health and Medicine* : 49-57

"Some researchers believe that melatonin increases cytokine production, which in turn signals T-Cells to travel to the site of an infection."

Carillo-Vico, A., R. R.J. Reiter, P.J. Lardone, J.L. Herrera. R. Fernandez Montesinos, J.M. Guerrero, et al 2006. *The modulatory role of melatonin on immune responsiveness. Current opinion in investigating drugs* 7 . 423-431

"rock music was shown to cause decreases in prolactin a hormone associated with good feelings"

Mockel, M., L. Rucker, T. Stork, J. Vollert, O. Danne, H. Eichstadt, et al 1994. *Immediate Physiological responses of healthy volunteers to different types of music Cardiovascular, Hormonal and mental changes. European Journal of Applied Physiology.* 451-459

"Tension tends to build up during music to a peak, after which the tension is released and subsides, often rapidly" (Daniel Levitin, 2008)

In the next page we analyse how a profession like the Music Therapist can bring these benefits in order to cure behavioural problems or actual diseases.

Music Therapy:

Music therapy with children and adult.

1979 Elaine Streeter, explored the connections between rhythmic processes in work with children, particularly those with **communication problem**, and **early patterns in mother-child interaction**.

Area of work

| adult | children | adult/child |
|--|--|--|
| Learning difficulties | learning difficulties | learning difficulties |
| mental health problem | emotional and behavioural difficulties | autism |
| emotional and behavioural difficulties | epilepsy | communication disorders |
| challenging behaviour | challenging behaviour | emotional and behavioural difficulties |
| Elderly | primary | challenging behaviour |
| Neurology | adolescent (outside the school system) | mental health problems |
| Addiction | | epilepsy |
| Prison service | | sexual abuse |
| | | eating disorders |
| | | hospice |

On the average the major number of ranked therapist seems to be around adult with learning difficulties, adult with mental health problems. Where for children therapist is around primary emotional and behavioural difficulties. ([learning languages in different ages](#))

Streeter wrote a book that provides many technical example for parents to apply with their children because they are more likely to know;

cit "how musical interaction might aid their children development of speech and language, physical skills, play, social, and emotional maturation." (Bunt and Hoskyns,2002)

Music treats different disease

Communication disorders

cit Dr. Jolly.

"A children with communication problems could have influenced over an adult and communicate intensions in a way not possible in any other medium, Where else could a child organise an adult in such way ?"

Autism

Joy Hasler chapter 4

Since music therapy is considered more and more of a serious subject, it has been demonstrated in various occasion that music can develop spiritually, morally, socially and culturally and that is a key for success in adult and children achievements.

S.Freud and Klein studies are related to the subject when speaking about entering from the door of consciousness to the unconsciousness by identifying levels of resistance, (related to music behind meditation) various defence mechanisms and manifestations that some people assumes.

The music therapist must requires the following qualities:

- the ability to empathise with the client with wide ranging needs*
- tolerance*
- patience*
- open and questioning attitude*
- gentless and strength*
- flexibility and adaptability*
- emotional stability*

and values, the four "I" imagination, intuition, improvisation, intellect.

The therapist uses musical terminology to describe human interactions. Music it is used to communicate where words can not be used or are superficials.

What the music therapist do ?

A music therapist also look at:

-the physical space/relaxation room.

An area where there is enough space for the clients to have their space, acoustically suitable for music/sounds so it must have some kind of acoustic treatment that isolate external sounds to being perceived.

-musical instrument

high-quality musical well maintained instruments that can deliver different range of frequencies therefore experience both playing and listening on different levels. Tuned and untuned percussion instruments.

-Boundaries

There are abstract walls that sets limit between the therapist and the client due to the diversity in the character and believes, they can be emotional and physical boundaries. A music therapist recognise this limits and shows a certain flexibility in order to give and receive confidence with the patient which is the starting point of the therapy.

-physical and time-based boundaries

Helps that the patient works in the same space and same amount of time so to feel safe and secure. This is still related with the space the patient is working in, It contributes a sense of containment because he develops an evolving relation with the surrounding. different timings for different level of concentration, in average a very young children has less concentration than an adult but this could be subjective and up to the therapist to figure out.

"lack of clarity over timings can lead to insecurity." cit.

-professional and ethical boundaries

The privacy of the patient needs to be ensured. In group session it is delicate to understand what informations can be shared and what not, treatment teams needs to be careful about this, but, when successful it could emerge an other level of security.

"respecting dignity and autonomy no matter what age, gender, sexual orientation, race, legal status and mental states" cit

-The qualities of a therapeutic relationship.

A relationship implies that two souls are constantly moving towards each other in order to find a feeling of connection, understanding and empathy.

"To relate implies to connect"

"it is a dynamic process bringing with it the idea of constant movement, growth and change, Non the less the importance of relationship developing over time.." cit Hinde 1997

To be with

it is a word used in the book "The handbook of music therapy"

it is one of the most important citation in this subject and that will be related in other subjects explained further.

it is an other skill that a music therapist must have and embrace, it means to stay with whatever it is the situation, the patient, the music without reacting impulsively to it.

Whether the feeling is not comfortable or pleasant staying unobtrusively in silence and just be with.

The music is the "language of the emotion", the soundtrack of civilisation (Daniel Levitin, The World in Si songs, 2008) people could potentially acknowledge their emotional body by reacting actively to the emotions they are feeling while listening to music . I

'Be it within films, live orchestras, concerts or a simple home stereo, music can be so evocative and overwhelming that it can only be described as standing halfway between thought and phenomenon. " (Bunt, Leslie, and Sarah Hoskyns, 2002).

The following research studies how to test the “music brain”.

The questionnaire is meant to build an average to support the facts amongst the following people are take part of different ages, professions, gender and ethnic cultures and will be discussed further on. In order to see if the experiment works I am trying to bring your attention to what you are feeling whilst listening to sounds ranging from the lowest frequency to the highest that behaves likewise and differently. To increase the listener attention level I will use ambient and instrumental sounds that are more useful in order to become aware of your feelings as these sounds are more likely to be heard in everyday life. This is in order to see if how you manipulate and use the different frequencies and tempo affects how you respond to the music emotionally. Everyone has a different life experience therefore it could be interesting seeing if there are different emotional response to the proposed sounds.

The Frequencies Spectrum from Logic shows the frequencies available to our auditory system . I will try to reproduce those frequencies from ambient sounds to instrumentals.

The images relative the Audio Spectrum is shown by Logic X EQ Frequency spectrum.

| Frequencies range | Labelled sound | Frequencies | Notes |
|-------------------|---|---|---|
| Low Frequencies | Breath Heart beat Rain inside the car Low Frequencies Drop | from 20Hz to 300Hz from 50 to 300 Hz from 50 to 500 Hz from 50 to 500Hz from 50Hz to 1kHz from 20Hz to 300Hz | samples with the same frequencies attitude. |
| Mid Frequencies | People talking People clapping Birds singing With the noise-sea Busy City Wind | from 500Hz to 10KHz | samples with the same frequencies attitude. |
| High Frequencies | Allarms People clapping birds singing | from 1Khz to 20Khz | samples with the same frequencies attitude. |

But in order for the experiment to work we must know that In real life, our hearing and experiencing of sound differs in many ways from that of listening to test tones and other test objects that are not a familiar part of our lives. In order to analyse scientifically the idiosyncrasies of how we hear and experience sound in real life situations, it is necessary to create a test object that is easily recognisable, repeatable, and familiar enough for us to de-

Figure 1.2
MUSIC BEHIND MEDITATION

The Human Body Frequency

"Every object on this earth has an electrical frequency that can be measured accurately. Electrical frequency is being measured by counting of the number of occurrences of a repeating current flow per second. This unit is called Hertz (Hz) and convenience it is defined in multiplying units like: KHz, MHz, GHz and THz. When referring to living organism the proper frequency measuring unit is MHz Megahertz that equals to 106Hz". (Heal-tone.com, 2016)

It is well known that we are more sensitive to those frequencies that we used and perceived in our life experience.

"The human body is a radiant machine every living element in our body radiates. Our brain operates in electrical current, our ears absorb vibrations and we produces voices and temperature. Living organisms have measurable frequencies on various levels from the entire body down to the cellular level.

This fact drove scientists to find that healthy humans and ill ones has different frequencies.

Each illness has different frequency that is always within a definite range. Cells also react to direct external light and sound frequencies.

Ill cells reacted to a very precise levels of frequencies and were cured or eliminated whilst nearby healthy cells remained intact. It has also been discovered that the general human healthy frequency is within the range of 62-72 Hz and when it drops to lower levels it enables the appearance of variety of diseases. For example at the level of 58 Hz, diseases like cold and flu were more likely to appear. On much lower levels (42 Hz) Cancer appeared in quite may humans.

Though this line of research seemed like a major breakthrough, it was not yet able to create a meaningful statistical impact. In some cases there was a very positive impact whereas in other cases there was no impact at all. Scientists started exploring other elements besides sheer frequency i.e. the Hz measurement. It appeared that with many diseases the waveform and wavelength sweep had made a tremendous difference in the overall impact. Any movement of an object in any frequency can be changed by an external intervention of another frequency and the frequency of the human body and its cells is of no exception. That means that sets of frequencies directed at inflicted cells of a certain disease had to have these additional elements defined by very precise data parameters, in order to create that desirable impact. Those new elements were added to radio, light and sound devices. Now the elementary research, which produced a large variety of dis-

ease-related frequencies has turned into a highly expertise research field. In a way, it seems to be closer to biochemistry than to physics. It is no longer as simple as some people thought. Now this field requires in depth knowledge in order to produce effective sets of frequencies. The beginning of the third millennium opens new horizons for frequency medicine and as it seems now, this process has already begun and it looks very promising for the human kind" (Healtone.com, 2016).

Since our perception of sound does not register all frequencies with equal loudness and because the process of sound-reproduction also distorts the balance of frequencies in its own, different way, the sound we ultimately hear when playing an unequalised recording has a completely distorted frequency balance in relation to how we would have heard the original live. But the listener does not know what the original sounded like, and the recorded sound does not duplicate anything familiar which can be used as a frame of reference. Therefore, a repeatable test of hearing in real listening situations is impossible unless the sound is equalised to sound the way we are used to hearing it live (anstendig.org, 2016").

In real life, our hearing and experiencing of sound differs in many ways from that of listening to test tones and other test objects that are not a familiar part of our lives. In order to analyse scientifically the idiosyncrasies of how we hear and experience sound in real life situations, it is necessary to create a test object that is easily recognisable, repeatable, and familiar enough for us to detect whether it changes under various listening conditions. Sound conveys expression as well as information, so it must also be a meaningful hearing experience. It should be pointed out that the only capacity of any of our senses that can be described as exact is the direct comparison of shades of colour tones that are immediately adjacent to each other. It is the only capacity that does not rely on memory, which is the most undependable aspect of our sensory perceptions. Hearing does not enjoy this possibility of direct, simultaneous comparison of sound impressions and has to rely on memory. This weakness makes it impossible for us to observe, recognise, and compare distortions of musical sounds, unless we know what they sound like undistorted. A meaningful comparison and evaluation of distorted versions of anything such as music that is meant to achieve a certain result is not possible unless one is familiar with the undistorted version. If we listen to music that is already distorted and repeat it in a different, but also distorted manner, there is no way for our ears to accurately differentiate between the two or the way each distorts the original. But if we familiarise ourselves with something wherein the balance of frequencies has been corrected so that it sounds natural and "right" for our ears and then repeat it in a distorted way, we immediately hear that it is different and can re-equalise it to sound right again. The human voice is an excellent object because we are familiar with what a voice sounds like and can recognise when it sounds unnatural. Without equalisation, sound research amounts to comparing one distortion to another without being able to directly compare them to each other. "The Anstendig Institute is a non-profit, tax-exempt, research institute that was founded to investigate the vibrational influences in our lives and to pursue research in the fields of sight and sound; to provide material designed to help the public become aware of and understand stressful vibrational influences; to instruct the public in how to improve the quality of those influences in their lives; and to

provide the research and explanations that are necessary to understand the psychology of how we see and hear (Anstendig.org,2016.”.

THE MUSIC BRAIN

The project has been called the music brain and these are the results on Qualtrics (Az1.qualtrics.com, 2016), a questionnaire generator on the web; here is the link to the page:

<https://www.qualtrics.com/>

The power of imagination.

For this experiment on track from the EP has been taken in consideration.
From the producer prospective the music has been interpreted visually and translated into a script.

SCRIPT FOR THE VIDEO

Creative Aspect

Liquid Drum and Bass

It is a quite involving energy that should evoke excitement in progression.

What I visualise is someone who forgot his memory because of a plane crash in the dry desert walking and breathing heavily towards a city that he sees from far away.

Script for the Video.

As he get closer to the city he realise it has been evacuated (maybe a war). He is a curios journalist and a part time musician, no one is there. He runs to the first empty supermarket and he picks up some fresh water in a freezer that is still working by the emergency power engine of the market. He grabs the water and he can feel the freshness, while the water rush down his throat it feels and seems like an other planet and it sounds like the most beautiful thing in that moment.

He then goes out the market and he walk towards a house that has right after his entrance door a bass on the floor with some slashes, only two strings attached; He picks it up while he gets into the house where down the corridor he sees a broken vintage piano, he drop the bass on the floor and as he drops it start to sounds melodically for a a few seconds only.

He then confused but inspired leave the bass carefully so to go to play the piano. The piano is half broken and It sounds like a Vintage Clav...the bass start playing again randomly as he touches the Piano. He is a bit scared but curious so he keeps playing fully involved for a while.....The sound texture of the piano changes in to a beautiful clear and bright sound in tune with the bass.

When the music progression reaches its peak point and so the excitement in his body, he wakes up by his alarm, in his bed. Nothing is on fire, he is in his cosy room still hearing those chords in the back of his brain. As he dress up and goes down-stair to have breakfast he sees from the window this girl quite mysterious walking with a bass with only two string on his shoulder.

This is what the track communicates to the author/Producer, a feeling that can sometime be felt in the morning after a vivid dream that leaves traces on awakening. Excitement in progression, the sensation to be living a dream.

The author want to deliver with this track a script that suggest a certain scenario. This should demonstrates how a creative mind can better enhance and elicit emotions when sound and visuals works together.

This is an example of how emotional responses derived from sound, can be used to drive the listener in to a series of visual scenarios, this could be subjective or shared depending on listener character and imagination. The emotional feedback should be the same.

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