Vladimir Radinović

vladimir.radinovic@gmail.com

MA in Digital Culture

Department of Art and Culture Studies

University of Jyväskylä

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Applying sound art research in modern electronic music production

Glitch, Loop, Plunderphonics and Sound Collage as tools of production

JYVÄSKYLÄN YLIOPISTO

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Tekijä – Author Vladimir Radinovic	
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Tiivistelmä – Abstract

This work is done as an empirical research of sound art and its relation to modern electronic music. Sound experiments conducted for this research follow some of the key ideas in the history of sound art and illustrate how these ideas have influenced electronic music producers. Divided in four parts, these research discuses the relation between art and popular music, and shows how art music experiments can be used as tools of production in modern electronic music. First chapter covers Glitch and Loop and their role in interplay between immediacy and hypermediacy of loop based music, while second and third look into alternative sound sources and sampling as a form of expression and a tool for sound collage. Finally in conclusion all of the research comes together and illustrates how these sound experiments can and are being used in the production of one of the newest and most popular electronic music genre - Dubstep.

Säilytyspaikka – Depository

Muita tietoja – Additional information

JYVÄSKYLÄN YLIOPISTO

Tiedekunta – Faculty	Laitos – Department
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Tiivistelmä – Abstract
Tämä työ tehdään empiirisenä tutkimuksena äänitaiteesta ja sen suhteesta moderniin elektroniseen musiikkiin. Tätä tutkimusta varten suoritetut äänikokeilut seuraavat muutamia äänitaiteen historian pääsuuntauksia ja kertovat, miten nämä suuntaukset ovat vaikuttaneet elektronisen musiikin tuottajiin. Tutkimus on jaettu neljään osaan, joissa tutkitaan taiteen ja populäärimusiikin välistä suhdetta. Lisäksi kerrotaan, kuinka kokeellista musiikkitaidetta voidaan käyttää modernin elektronisen musiikin tuotantotyökaluna. Ensimmäinen kappale käsittää Glitch- ja Loopmusiikin väliset roolit välittömän ja välillisen nautinnon tuottajana Loop-pohjaisessa musiikissa. Samalla toinen ja kolmas kappale tutkiskelevat vaihtoehtoisia äänilähteitä ja niin sanottua "sämpläystä" (sampling) ilmaisun muotona ja työkaluna äänikollasien luontiin. Lopuksi kaikkien tutkimusten kerääntyessä yhteen nähdään, kuinka vastaavia äänikokeiluja voidaan käyttää, ja käytetään uusimman ja suosituimman elektronisen musiikin genren - Dubstepin - tuotannossa.

Säilytyspaikka – Depository

Muita tietoja – Additional information

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1. Introduction

Through out the last six years of my studies, of which four at the Academy of art in Novi Sad, Serbia at the department for New Media and two at Digital Culture department at University of Jyvaskyla in Finland my interests and research was revolving mostly around sound art and contemporary electronic music. First four years during my bachelor studies this research was mostly practical or in other words conducted through practical work which resulted in 12 self released albums.

During last two years my studies at the Digital Culture department of University of Jyvaskyla have shifted my research towards more theoretical approach. Naturally being new to this kind of research I have had many questions and have started to rethink and re-contextualize my previous sound research. This has resulted in writing several papers and essays on various topics all of which are related to sound art and electronic music.

The reason why I have chosen to pursue a degree in New Media and Digital Culture is that I have always felt that in these fields one is free to experiment with many different media and able to research diverse topics and subjects unlike in classical art education. However during my early days at the art school I have often been criticized that my interests are too broad and that I should limit myself to fewer topics. Although interdisciplinary way of thinking is strongly embedded in my nature, I have always considered that one should try to be as concise as possible in presenting his/hers ideas.

During my studies in Finland, my interests have started to crystallize and to revolve around few topics – Glitch, Loop and Sampling. Thus this thesis is written in the form of collection of essays, whose goal is to illustrate my interests in these topics and their place in the field of sound art and electronic music through various academic approaches that are being practiced at the Digital Culture department at the University of Jyvaskyla, Finland.

From hypermediacy to plunderphonics, from sound culture and media theory to modern aesthetics this thesis should answer some of the many questions (and ask others) that are emerging with the rise and development of the modern day music styles which have appeared at the beginning of the 21st century. Although different in theoretical approaches these texts all

cover the field of contemporary electronic music and deal with the means of production in the modern day sound culture.

In order to illustrate these texts better, I have conducted an empirical research which resulted in a CD with four tracks of my own music. Each track on the CD will provide a listener with the better understanding of the topic covered in the essay and give an example of my work in the given field. Tracks that are selected for this compilation have been produced in the last 6 years and have been presented on various music and electronic art festivals around the world.

2. Glitch as a tool of hypermediacy

Illustration:

Vladimir Manovski – Disandat

"Café music is most often intended for the background; the music is not there to be listened to in any attentive way and is most often ignored until the CD perhaps covered in scratches and dust and being played through a second- rate stereo, inevitably starts skipping. The stuttering CD in the café environment causes all to stop and take notice. The high- pitched glitch of a CD "hanging" on a small section of audio causes an instant reaction. The customers look around for someone to fix the problem, by forwarding to the next track or changing the offending CD altogether, so that they can go back to their conversations." (Caleb Kelly, 2009)

While working on my album "Soviet synthesizers and a hand full of oil" I was fascinated with the ideas of creating an ambient music by using low frequencies. I started to shape background noise out of the loops sampled from old Soviet synthesizers which I found at a website called Museum of Soviet synthesizers[1].

My initial objective was to create a soundscape which will pacify ones mind eventually bringing it into a state of meditation. It was in my understanding that this can be achieved by exposing the listener to a repetitive sound structure, more commonly known in the field of music as loop.

Breaking these repetitive sound structures with the actions which are commonly classified as mistakes or errors (sudden interruptions, glitch sounds, volume drops, etc.), I could capture ones attention and direct it towards a certain point in time. Uncomfortableness experienced by sudden interruption of meditative state raises questions about the quality of the medium and thus shifts ones attention in contemplating about a medium rather then just indulging in its mediations. In digital culture theory this action in which the mind contemplates

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[1] http://www.ruskeys.net/eng/sounds.php

about the medium instead of its mediations is known as hypermediacy and it was first discussed by professors Jay David Bolter and Richard Grusin in their book Remediation: Understanding New Media.

When Bolter and Grusin discussed hypermediacy and immediacy they have analyzed it through visual media such as web pages, video games, 3D graphics and video. In order to show how Glitch sounds can act as tools of hypermediacy (and generally if want to analyze this concepts through sound), first we must look into the history of sound carrying media and understand how these media shaped our listening experience and our notion of sound.

2.1.   The role of phonograph in deterritorialization of sound

It has been more than half a century ago, since the first phonograph was commercially introduced to the market by Columbia Record Company on June 21, 1948. This sonorous machine which according to Kittler "dose not hear as our ears that have been trained to filter voices, words and sounds out of noise; [instead] it registers acoustic events as such" has played an important role in reshaping our perception of audible world. Clicks, cuts, buzzes and scratches distinguish the polyvinyl record plate from any other sound carrying medium. These imperfections of a medium (which was often advertised as the medium that offers high fidelity of reproduced sound) have been the agents of absolute deterritorialization of sound.

Deterritorialization, term coined by Deleuze and Guattari, can be defined as any process that decontextualizes a set of relations[2]. If we consider recorded sound embedded onto polyvinyl disc as a territorialized space or *continued plane*, every sound that can be heard interfering with the recorded sound can be considered as an invader or outside force. When this interfering sound becomes ever present, it merges with the initial sound of continued plane in creation of new sound plane (exp. sound generated by scratches on vinyl disc becomes ever present part of the music printed onto the same disc. Scratches can never be removed, thus every time the disc is being played the interfering sound of the surface noise is present).

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[2] http://en.wikipipedia.org/wiki/Deterritorialization

"Absolute deterritorialization. One has become like everybody/the whole world (tout le monde), but in a way that can become like everybody/the whole world. One has painted the world on oneself, not oneself on the world." (Deleuze & Guattari, 1987)

In the era that preceded what Janne Vanhanen refers to as the age of phonography our notion of sound was hypermediated; every sound had its determinable, often visible source. For example, if one were to listen to a guitar player that person could enjoy the song that was being mediated but would undoubtedly saw the medium which was used in that performance – guitar. Every sound had its visible source and thus all the mediums were exposed in front of the receptors.

In the era that followed, with the help of phonography all these sources were concealed behind the polyvinyl curtain. Every recording, once played back is a remediation of a sonic event. When recorded, sound becomes physical media which renders its ability to be altered, modified and copied by the production tools. By using the production and recording tools in the age of phonography we do not longer witness the original medium used for generating sound. All these tools remain hidden from us in the final score and what we have is transparent immediacy on act. In other words, what is being mediated is positioned far more important than the medium used for the production which remains silent.

Once the here and now of the event in which the sound is produced have been removed (see Benjamin 1935), the sound recorded onto the polyvinyl plate becomes acousmatic. On the other hand cracks, clicks, buzzes and other sounds which emerged from the imperfection of the medium are essentially what Pierre Schaeffer calls sonorous objects, and as such naturally acousmatic. It is at this level, the level of Acousmatics that the sonorous objects are equalized with instruments. They become legitimate actors of sound data that is coming from the "true instrument" of our age. According to F. Richard Moore "…the true instrument of our age is not the lute or guitar or piano or drum or organ or even electronic synthesizer – it's the loudspeaker." In his writing on the future of music Moore expands this statement with the idea that loudspeakers, which are the sources of the majority of music we perceive, turn out to be the standard of it as well.

When the transformer of electric impulse into a sound wave becomes the standard of music, than we can claim that the electric impulse is the standard of a sound. If electric impulse is the standard of the sound then all standardized sound should essentially be acousmatic. Since glitch sounds have no acoustic origin we come to conclusion that only these sounds can construct the ultimate phonographic music.

"All truly phonographic styles of music (from rock music onward) are in part characterized by their perspective "signature sounds", which derived from deliberate mistakes in their production. Amplifier distortion and feedback for rock, vinyl scratching for hip hop, Roland 303's "acid" sound and other synthesizer malfunctions for house and techno, etc." (Vanhanen 2003: 5-6)

2.2. New Media and Glitch

If according to Nicholas Negroponte: "The digital revolution is over" (Negroponte 1998, quoted in Cascone 2000), then it left cheap accessible computers and other technological gadgets in almost every home in the western world. If we were to become a part of modern post digital society we all would have to be equipped with a computer in order to participate in the new emerging market and biggest social network – The Internet. On the other hand, companies that produced these tools of communication had to make them expendable in order to stay in business. In addition, new technologies are being developed on a yearly if not monthly basis, which renders today's new technologies old relatively quickly. Unreliability of hardware and software and the emergence of viral culture lead to visual and sonorous experiences that were entirely new to consumers of these new technologies. Errors, bugs and crashes enriched and widened our aesthetical perspectives, both visual and sonorous.

Emerging aesthetics of erroneous systems offered a wide field for artistic experiment and opportunity for exclusiveness in work. Both visual and sound artists started to work with errors, first by simply recording them, then by forcing them upon tools and eventually by creating their own tools for generating them.

"If there were an emblematic sound of today's digital music, it would be the sound of a skipping CD" (Vanhanen, 2003).

The "emblematic sound" to which Vanhanen refers to, is clearly represented in Oval's "Systemisch" (1996) and Yasunao Tone's "Solo for a wounded CD", two albums that were entirely produced with the use of the skipping compact discs. These two albums are also being referred to as the corner stones of the Glitch music genre (Prior 2008, Thompson 2004, and Vanhanen 2003). Skipping action of a scratched CD could have also been held responsible for the name of the new digital phenomena.

According to Oxford dictionary Glitch is a term of an unknown origin[3], however the term is extremely close to the German term glitschig and Yiddish glitsh, both meaning slippery. Slipping of a laser beam of track while reading data of a music compact disk, an action of a skipping CD, results in Glitch. In the musical terms Glitch sound is every digital sound that was created by an unintentional or forced error or malfunction of technology used in generating or processing sound.

2.3. Sonic textures and immediacy

Music is a human experience above all and not just a set of fragments or "structures" (Laske, 1977)

Repetitive linear sound formations represented through and embodied in loop based electronic music have become undoubtedly big part of a daily sonic experience in the modern day western world. Popular dance music which consists mostly of repetitive loops can be heard in almost every supermarket, shopping mall, bar, club, as well as on almost every radio and television station, and even on a street coming out of passing vehicles. Perpetuated as modern and popular and carefully branded to fit the music industry standards these popular loops are

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[3] http://www.askoxford.com/concise_oed/glitch?view=uk

designed and sold as products. While occupying certain field of our soundscape these repetitive loop structures which are happening in the constant now (Vanhanen, 2001) are providing the background noise to our daily social activities.

"As the repetition builds up a smooth plane of constant present, deterritorializing the sound itself as a singularity, a sonorous force, there's a tendency for that repetition to become reterritorialized as a cliché, an all-too expectable formula;" (Vanhanen 2001)

Repetition of a cliché loops through mass media imprints their aesthetics into our subconscious mind. Such action leads to the fact that every time we encounter with them in the future they trigger a familiar cognitive state. Repetition renders loops formless; it points the concentration to the most deterritorializing aspects of sound (Vanhanen, 2001) such as timbre and texture. Focusing concentration on the micro aesthetics, mind fails to perceive the complete complexity of the soundscape which fades into the background noise. Indulging into the analytical thinking of acousmatic sound, mind is pointed into thinking about what is being mediated and shifted away from thinking about the medium itself. In other words, "when we go beyond the "explanatory" way of listening there is no straight connection between sound-as-heard and any sound-producing action" (Reybourck, 2005). This is the logic of transparent immediacy on act. According to Bolter and Grusin who coined the theory behind remediation, immediacy and hypermediacy, the logic of transparent immediacy can be seen in a medium whose purpose is to disappear (Bolter & Grusin 1999). When mediated experience becomes what mind perceives as real, one is experiencing the true nature of logic of transparent immediacy.

2.4. Glitch and hypermediacy

"The failure is the beginning of the fascinating chain of remediations." (Bolter and Grusin, 2000)

While working on the "Disandat" track for the "Soviet synthesizers and a hand full of oil" album as I stated in the beginning of this essay my initial idea was to create an ambient

track. After sampling sounds of old soviet synthesizers and manipulating them mostly by shifting their pitch and detuning them I was able to acquire the sound I was looking for. Loop of melodic synthesizer sound became a buzzing sound located in the lower frequencies. This was a good basis that could be fine tuned with the use of delay, reverb and echo which then deterritorialized the sound of the synthesizer further and have set it in the domain of the noise.

Intensity of the unpleasantness caused by initial exposure to the noise can be lowered by using repetition, or in other words by looping the sound. This is possible due to the fact that loop has an intransitive effect on mind. Endless repetition indicates loop's immutability which classifies it as a part of an ever-present non-threatening fragment of our daily background noise.

We already established in the previous chapter that acousmatic sounds such as noise, when repeated by the use of loop, create a trance like state through the transparent immediacy. My question at this point was how can I break this immediacy? What can be used as agent of hypermediacy and shift the attention of the listener toward the medium rather then what was mediated? One of the answers came from the production methods of popular music. In popular dance music when a part of the song needs to be emphasized this is commonly done with the use of a "break" or "drop", an action in which the loop of electronic beats is suddenly interrupted. However in dance music the goal is to keep the listener in trance-like state through out the whole track so these interruptions are merely pauses between to repetitive patterns and usually consist of one element of the track which connects those patterns. Still one can notice that these "brakes" and "drops" lessen the effect of trance and capture the attention of listeners while preparing them for a bigger trance once the repetitiveness is back.

Since my idea was not to make dance music track and I had not been using any beats in the production, the use of "break" and "drop" was practically impossible. At the time what I had was a single loop of noise sound that was repeated throughout the whole track. However, "hypermediacy can operate even in a single and apparently unified medium, particularly when the illusion of realistic representation is somehow stretched or altogether ruptured" (Bolter & Grusin. 34).

This leads to the idea that repetitive loops can break the state of immediacy only when their immutable nature is abruptly disrupted. In other words sonic fragments that create

background noise become dominant sounds when their structure or features have been unexpectedly altered. By failing to keep its original state and upon mutating into a previously non-existing one these sounds capture our attention and shift its presence from background noise into foreground. Every break of the loop no matter how small is a change and thus a manifestation of hypermediacy which makes us aware of the medium and reminds us of our desire for immediacy (Bolter & Grusin. 34).

I have tried to point out at several moments in time by using glitch as a marker. By the use of glitch sounds the effect of hypermediacy is stressed even more. Without repetition these glitch sounds remain an isolated moment in time and thus completely deterritorialize the sound. Given the fact that all glitch sounds are born out of errors their singularity in time signifies their birth. It is at this point that the mind which is captured in enchanted loop wakes up. This is the moment in which the mind thinks about the medium instead about what is being mediated. And this is how transparent immediacy caused by exposure to loop and meditative state which it brings along can be efficiently interrupted by the use of glitch.

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3. Alternative sound sources – sound data digging and plunderphonics

Illustration:

Vladimir Manovski – Kiss me like computer

"At this particular moment in the history of computer music, the flow of ideas between high art and popular art seems to have a particular significance...It seems that we are about to enter a new cultural architecture that we cannot yet describe; yet we are aware that technology is changing the world and it will also change the world of computer music." (Chadabe, 2000.)

During my internship at the new media center kuda.org in Novi Sad I have stumbled upon a video work called "Safe Distance". This video work which was later exhibited as a video installation on several new media exhibitions consisted of a found footage form a US Air Force aircraft that was shot down during a mission over FR Yugoslavia in 1999. I have sampled the audio from this footage and created a track called "Kiss me like computer" which was used on my first album "Electronisch getestet". The idea was to show how alternative sound sources can be used in music production as well as raising the awareness of the idea of plunderphonics by John Oswald.

3.1. About Safe Distance

Duration: 21 min.

Original format: Sony Video 8 VHS

Production: US Air Force

Postproduction: kuda.org, New Media Center, Novi Sad

Safe distance is video tape that was recorded in 1999 during NATO air strikes against FR Yugoslavia. Videotape shows head-up display of the US Air Force plane. There were 4 airplanes flying from NATO-base in Italy to destination in Yugoslavia. Mission objective was to bomb several targets in the area around Novi Sad. On the way back, after mission was completed, plane was shot down. Tape (Sony Video 8) was found near crashed plane in Fruska Gora mountain in Srem, Vojvodina. It shows head-up display with basic graphical interface and voice communication between pilots. Videotape is a regular document of flight used by commanding structures to analyze its efficiency and success after every mission. Tape presents these last moments before plane crashed. (kuda.org, 2002)

3.2. History of Plunderphonics

Plunderphonics is the term coined by the composer John Oswald in 1985 and which describes the music made by sampling existing audio sources and rearranging them into a non-existing composition with out paying the artistic royalties. The term itself is a direct reference to audio piracy which is a subject that has been repeatedly discussed in the last few decades. This subject has raised many questions about intellectual property and still is one of the most sensitive topics in the music industry today. However intellectual property is not the topic that I would like to discus here. I am far more interested in the topic of musical collage and audio recycling.

This method of work (using ready-made objects and re-contextualizing it) has been done through the history in many art movements and can be found in collage works of cubists and dada artists. Ready-made objects of Marcel Duchamp are representing a complete "unmodified object that was simply imported whole into an 'art space'" (Cutler, 1994.). On the other hand looking at the art history it seems that sound artists and musicians took their time in incorporating plundered material into their work, unlike their visual colleagues who have been doing so for quite some time.

One of the first notable sound experiments that consisted of plundered material was the work of Stephan Wolpe, a dada artist who used eight different gramophones at the same time to play records at different speeds at a Dadaistic event that took place in the 1920. Many artists followed his example, however mostly in experiments that were never incorporated in the final work (Cutler, 1994.). Regardless of the fact that these experiments were done in the 1920's and 1930's, general public had to wait for thirty more years before Pierre Schaeffer (Etude aux tourniquets, 1948) and John Cage (Imaginary Landscape No.4, 1951) incorporated some of the basic principles of plunderphonics in their works. Yet it took another ten years before James Tanney took on Elvis Presley's "Blue Suede Shoes" and completely remodeled it into his composition Collage No.1. This track is still considered to be the first use of plundering in the history of music production.

3.3.   Digging in the crates

"The turntable is a musical instrument as long as you can see it being a musical instrument. You're dealing with notes, you're dealing with measures, you're dealing with timing, you're dealing with rhythm, it's just different tools but the outcome is the same – music." (Rob Swift, 2001)

And this is exactly how young African-American population saw the turntable in the late eighties and early nineties of the twentieth century. They reached for the old funk and jazz records that they could find in their parents collections and started to sample breaks in order to create their own music – Hip Hop. A break in music is an instrumental or percussion section or interlude in a song that could be sampled and repeated.[4] Plunderphonia and scratch become the backbone of the music which portrayed the life in the African-American neighborhoods and soon spread all over the world as one of the most innovative music genres of the twentieth century.

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[4] http://en.wikipedia.org/wiki/Break_(music)

In Hip Hop music and culture in general, the element of battle or competition has always been strongly embedded and was the driving force behind many young talented DJs, MCs, graffiti writers and break dancers. This is also the case with the Hip Hop producers. Some of the most respected producers of Hip Hop were and still are the ones that could find a break that no one has used before them in the production. This rivalry and the desire for exclusivity in the terms of ones own production had brought the plunderphonics to a higher level and developed it into a new art form.

In the documentary "Beat Kings" from 2006, producers such as Marley Marl, DJ Premier, Pete Rock and RZA, who are all considered to be among the forefathers of modern Hip Hop clearly state that the revolution in the production oh genre came with the invention of sampler units[5] such were Akai MPC 60 and E-mu Systems SP-1200. "I could take any kick, any snare, any hi hat and make my own pattern" (Marley Marl, 2006). Which meant that young producers that had no access to the expensive recording equipment and professional studios could produce quality music by using drum samples from the likes of James Brown and other pop musicians that were recording in those conditions. Plunderphonics of Hip Hop producers opened the door to many creative musicians and started the revolution in music. Example that clearly illustrates this statement is the story of "Amen Break" told by Nate Harris in his 2004 video entitled "Video explains the world's most important 6-sec drum loop".

Amen Break, 6-seconds of drum beat recording from the 1969 "Amen Brother" track by the band The Winstons had been so many times recycled in the history of hip hop music that eventually it became a signature drum loop for the genre itself. Moreover it was used as a backbone loop in the creation of Jungle and Drum and Bass music in the UK in the early nineties from which many other music genres were created. And it was all done because of a six seconds of drum sample that was recycled over and over again.

In the last twenty years the Hip Hop genre had spawn many sub-genres although the concept of plunderphonics remained to be the basic principal of production in most of them.

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[5] A sampler is an electronic musical instrument similar in some respects to a synthesizer but, instead of generating sounds, it uses recordings (or "samples") of sounds that are loaded or recorded into it by user and then played back by means of a keyboard, sequencer or triggering device to perform or compose music. http://en.wikipedia.org/wiki/Sampler_(musical_instrument)

Recycling drum beat patterns and rearranging orchestral clips had proven to be the successful formula that brought this music out of the American "ghettos" directly to the top charts of pop music industry.

3.4.   Digital Plunderphonia

In the twenty-first century digital era we are surrounded with digitally reproduced sound. Every little technological gadget can be used as to produce, reproduce, record sound or it can access a vast amount of sound databases via internet. Such a rich sound environment offers a great deal of material to be recycled by the means of plunderphonics. Internet archives of radio and television shows, viral and surveillance videos, video games and even satellite communication offers sound that can be re-recorded, downloaded and plundered for audio samples.

If we were to look at the sample lists of some of the most popular electronic music albums that came out in the recent years we would find that exactly these "new" sources are being plundered for audio samples. In 2007, artist Burial released his second album entitled Untrue which ended up on the first place of FACT magazine's top 100 albums of the decade[6] and was selected among the NPR's 50 most important recordings of the decade[7]. This albums sample list includes audio material from video game Metal Gear Solid 2 as well as from movies Alien 3 and Bullet Boy among others.

What I am trying to point out with my research is that digital audio material and its ability to easily be modified is offering a lot of opportunities for modern day musicians who are now able to work with any desired sounds. One can only imagine the situation in which an artist is writing an official letter to US Army and asking for a permit to get access to their internal radio conversations that took place during their mission in FR Yugoslavia in order to sample those conversations and create music out of them. However with the help of digital technology I was able to use that exact samples in creation of my own musical piece which proves that

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[6] http://www.factmag.com/2010/12/01/100-best-albums-of-the-decade/10/
[7] http://www.npr.org/assets/music/blogs/asc/2009/11/50mostimportant.pdf

Plunderphonia, in the digital age, enables artists to sample any sound and re-contextualize it as a part of their own work.

Re-contextualization of plundered audio material can be used as homage, quoting or referencing; it is audio recycling as well as filtration of sound.

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"Video explains the world's most important 6-sec drum loop". Perf. Nate Harrison. 21 February 2006. Youtube. 16 September 2009. http://www.youtube.com/watch?v=5SaFTm2bcac

4. Re-contextualizing sound - The art of field recordings and sound collage

Illustration:

Vladimir Manovski – Trying to fix the time machine that started to loop

During my exchange program at the University of Art in Bremen Germany, I have attended a class entitled Sound Culture. First part of the class covered various sound art topics and dealt with the many of the modern sound culture questions and theoretical approaches to examining sound art. Second part of the class consisted of a practical work in which the students had the chance to work with sound and to explore the field of sound culture and sound art through participation in the production of it. This is where I have done the track entitled "Trying to fix a time machine that started to loop".

This track was done for a project called Sound Excursion in which the goal of the project was to familiarize the students with the art of field recordings through a session of recording environmental sounds. For me this was a great opportunity to explore this side of the sound art production, since never before I have had the access to professional recording equipment. Since the University provided the students with the two units of Zoom H2 and Zoom H4 professional sound recorders, I was able to indulge into this experiment.

Recording session took place in the neighborhood where I was renting a room during my stay in Bremen. I have focused on a two streets that were my daily routine on the way to the local tram stop. Since the recording session took place in the late evening the soundscape was not so intensive as usual which gave me the opportunity to focus on sounds that are easily lost in the bulk of daily noises.

Upon gathering what I thought was enough material I was able to start the re-contextualization of recorded sound in order to create an imaginary sound narrative through rearrangement of sound samples. This experiment got me into thinking more about the field of

phonography[8] and its use in the modern day world. Naturally I started from the beginning and looked into the history of filed recordings in order to understand how important this practice is in the field of sound culture.

4.1. From Ethnomusicology to Art

The term field recording refers to any sound recording that is conducted outside of a recording studio and was originally used in Ethnomusicology to describe the live recordings of folk musicians. The practice of field recording started somewhere around 1915-1920 but those recordings were rarely saved and were mostly used to transcribe the songs (Bilger, 2008.). Among the pioneers of sound archiving and one of the first traveling ethnomusicologists was John Avery Lomax who set out in the 1933 into his first phonographic expedition through the south of United States of America. In this expedition besides gathering a vast collection of folk songs, Lomax discovered many of the future blues music legends such as Leadbelly and Muddy Waters. Naturally at that time recording devices were very expensive and quite heavy[9] which explains why only funded scientists such as Lomax and recording industry scouts had the chance to work with field recordings.

However in Europe a French Radio and Television Broadcasting company employed a young engineer 1936 who was eager to experiment with all the equipment that was now at his disposal. This man was Pierre Schaeffer. His work with the *musique concrete* is still considered to be one of the most influential art works in the field of music and sound in general. Schaeffer described the sound as vocabulary of nature and advocated the idea that each and all sounds should be included into this vocabulary. Given the opportunity to work with all the equipment that a national broadcasting company had to offer, Schaeffer started to incorporate sound recording into his work and was among the first to use this technology as artistic tool.

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[8] Field recording is also called phonography; the term is used to exemplify its resemblance to photography.
[9] The one that Lomax used was 143 kilos heavy phonograph that was installed into the trunk of his car. This machinery was state-of-the-art at the time and was considered a quite portable one.

If we look at the scene of field recordings nowadays it seems that this discipline has completely shifted from the field of ethnomusicology into the filed of sound art. Development of internet and specifically web sites that archive viral video material has in way put the ethnomusicologists out of their business, since anyone with a camera can record a band in their garage and upload the recording on YouTube (Bilger, 2008.). On the other hand development of same technology has made field recordings accessible to every one. Every new model of camera or mobile phone comes with the option to record sound which enables artists to work with field recordings without having to invest significant amount of money into equipment.

4.2.   Creation of narrative through sound collage

Sound collage or montage is a technique that predates the visual collage works of Picasso and Braque and its origin can be found on the works of Mozart (Don Giovanni 1789) and Biber (Battalia 1673). However this technique had started to shape fully in the 20th century alongside with the experiments of modernist painters. First documented sound collage produced by the means of electronic media is the work Wochenende (Ein Film ohne Bilder) by Walter Ruttmann German filmmaker, which was premiered in the 1930 in Berlin. This experimental film was also the first creation of narrative through the sole use of sound montage. Ruttmann's experiment's with re-contextualization of sound recordings were definitely ahead of their time since there were not many notable works in next twenty years before Pierre Schaeffer implemented the same technique in the creation of his first Music Concrete pieces.

Popularity of Pierre Schaeffer's work and the follow-up works in the domain of sound collage experiments (such as works of John Cage and Iannis Xenakis) inspired many artists and musicians to apply the technique of sound collage in their works. The development of magnetic tape boosted the use of sound collage in modern art to the point where pop music producers started to use this technique in their production, most notably The Beatles used this technique in "Being for the benefit of Mr. Kite" and "Revolution 9".

However throughout the most of the twentieth century in music narrative and postmodernism have not received enough sophisticated and intensive treatment as in other

disciplines (Dries, 1994). That is until John Zorn composed his most prominent work "Spillane" in 1986 which was a file card composition that told a story of Mike Hammer a fictional character taken from the detective novels of Mickey Spillane. Linear-temporal collage technique that Zorn was using interrupts and fragments any development of linear narrative while advocates a musical narrative beyond the dialectic of postmodern/modern discourse (Dries, 1994). While breaking the linear narrative, Zorn unknowingly offered a space for hypermediated art practice which is opposite to the linearity of what Dries calls the postmodern/modern discourse. In (sound) collage as in hypermedia to create is to rearrange existing forms (Bolter & Grusin, 2000). While detaching the material from the original context and recombining it into new forms artist is defining new space and suggests new relations.

4.3. Phonography in digital age

In the modern times, the art of field recordings is in a quite unenviable position. By the end of the 1980's most of the, by that time, unexplored territories have been visited by anthropologists who have recorded tribal songs, dances, spiritual chants and other forms of musical expression and brought them back to the western world. Given the fact that these forms of musical expression have remained mostly the same for centuries (with slight nuances), there have been not much left to explore and document with the art of field recording.

By loosing its use in the academic field and shifting into the field of experimental sound and radio art, original form of field recording art has fallen into the corners of artistic practice. For example, the biggest field recording group on one of the most professional music platforms on the internet - Soundcloud contains only 220 contributors and has 1295 members[10]. It would seem that the art of field recordings is a slowly dying art form which is being practiced only by a few individuals and enthusiasts around the world.

However during this research I have found out that the situation is quite different. The art of field recordings is being practiced at much wider scale then it seems at the first look. Many

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[10] Information retrieved from Soundcloud on July 15th 2011. http://soundcloud.com/groups/field-recordings

contemporary electronic musicians are starting to use field recordings in their work in order to achieve a more personalized sound. Notably, one musician who repeatedly used field recordings in his works had probably made the biggest impact on the contemporary electronic music scene worldwide. This musician was Bryn Jones or better known by his stage name Muslimgauze.

In his rather short life (Jones died in 1999, aged 37), Muslimgauze managed to produce over 100 albums of experimental electronic music which were influenced by the music and culture of Middle East. Jones had been using field recordings from Middle East along with plundered loops of middle-eastern ethnic music in creation of his own music and achieved a cult status among the admirers of experimental electronic music.

Another example is Geir Jenssen, also known as Biosphere from Norway who has been producing ambient music since 1983 and is still quite active and recognized in electronic music circles worldwide as well as in the field of phonography. Unlike Jones who had been mostly using plundered field recordings, Jenssen is creating his own which offers him a much greater exclusivity in work. This is exactly the point to my research; by creating unique field recordings any artist can enrich his/her music by adding the personal note to it as well as having a unique exclusive sound instead of using a pre generated samples that come with software/hardware.

On the other hand by using the technique of sound collage one is able to break the monotony of a typical field recording and create an imaginary soundscape which follows a certain narrative. Combining several field recordings in one sonic piece creates a numerous "worlds" of sound and thus allows the work to step out of the documentary milieu and enter the field of sound art, more specifically sound collage.

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5. Applying Research in Production of Modern Computer Music

Illustration:

Vladimir Manovski – Look Behind

"A technologically adept generation raised on home computers and video games begins to explore the equipment at its disposal: discarded analogue synths and drum machines picked up at junk shops, DJ equipment, the latest computer hardware, and commercial and homemade software. In their own bedrooms and basements they began to recapitulate the experiments and discoveries of early electronic music." – Warner and Cox 2004, 366.

In conclusion to this thesis I would like to look at one of the newest and most popular dance music genre at this moment in time in order to show how the experiments with sound described in this thesis can be applied in the production of modern computer music. All the previous research within this work follows the ideas of "experiments and discoveries of early electronic music" that Warner and Cox were talking about. I would like to show how all of these research can be used as tools for production of modern computer music. As I stated earlier, as an example for this I should use one of the most popular "club" music genre, a genre that started to develop around the same time when Warner and Cox wrote their claim on influence of early electronic music experiments on modern day producers - Dubstep.

5.1. Interplay of Immediacy and Hypermediacy in Dubstep

Dubstep is a music which features heavy basses supported by simplified rhythmical structures borrowed from early UK Garage music. As well as any other "club" music its production relies on the extensive use of the looped patterns. However in Dubstep rhythms are

almost always syncopated and often are incorporating tuplets (irregular rhythm patterns). In music, syncopation means both the subtraction of accent where you expect one or insertion of the accent where you least expect one (Bernstain, 1956.). While the bass and musical samples are being looped throughout the song and invoke the immediate state, shuffled and syncopated rhythm patterns offer the hypermediated counterbalance to this experience. Sometimes we can find the tribal rhythmical patterns that are being used in order to support the entranced experience (notably in the early tracks of Digital Mystikz, Loefah and similar producers), but the snare drum which is a signature of this music is always syncopated. Since the rhythm and bass are the backbone of Dubstep, we can see how the interplay of hypermediacy and immediacy is used to construct a unique music genre.

In order to emphasize this interplay and to illustrate my claim from the first essay in this thesis I have used deliberate mistakes in production. The fact that rhythm loop remains the same through out the track illustrates its mechanical nature and points toward hypermediacy (listener is aware that this loop is created by electronic tool). However its immutability renders the loop less important then the rest of the sounds in the track and from time to time (when other sounds such as field recordings and monologues are more dominating) it blends in the background noise and acts as transparent immediacy.

Upon the first time the monologues are appearing in the track, their cinematic nature grabs the attention of the listener and drags the mind into the narrative. While contemplating on the narrative listener neglects the rest of the sounds thus experiencing transparent immediacy on act once again. When these monologues and chopped parts of them reappear in the track, listener understands that they have been edited by electronic means and the transparent immediacy of narrative is broken allowing the hypermediacy to take its place.

5.2. Plunderphonia as a referencing tool

Since Dubstep is the genre that has roots in the Jamaican music (specifically Dub and Dancehall), producers of Dubstep tend to reference that fact with the use of vocal samples from early Jamaican recordings. This mean of production emphasizes the notion of Dub in Dubstep

which most of the producers hold very important. Through these vocals they remediate the sound aesthetics of Dub and keep the Rastafarian messages of the golden era of Reggae alive. This is all possible due to the fact that the whole movement of Reggae and Dub Music is based on "versioning" or creating a unique Dub track out off pre-existed Reggae track.

If we were to look into the archives of Jamaican music we can find a certain bass pattern or a trumpet sample that appears in many tracks repeatedly. These tracks are often called Riddims and are being constantly reworked, remixed and dubbed by different producers. For an example the trumpet sample from the track Swing Easy by Soul Vendors published by Coxsone in 1966-67[11], appears as Swing Easy Riddim and has been redone by almost every Jamaican Dancehall musician in the 1990s as well dubbed by many of famous dub producers over the years (notably Augustus Pablo played this melody on his Melodica in the track Skanking Easy). As the genre of Dubstep developed through out the years, the idea of plundering old Reggae tunes for samples spread onto the idea of plundering other music as well, first Hip Hop and later all the other music genres. Suitable illustration to this claim would be a free 2010 Christmas album from producer Stenchman who plundered music from Cassius (When the Sun Goes Down), Canned Heat (On the Road Again), Busta Rhymes (Gimme Some More), Babylon Zoo (Spaceman) and many others.

As an illustration of Plunderphonia and this part of the research I have reached for the same production methods in creation of "Look Behind" track. Being led by the idea of "Plundering the plunderer" I have taken the rhythm drum loop from Burial, one the most innovative producers in Dubstep who as well have been plundering many different sources for audio samples. By using Burial's rhythm loop[12] which carries a certain aesthetic and producer signature I am able to reference his work through mine. On the other hand this action remediates Jamaican way of production thus adding a double reference to the roots of this musical style. Finally, plundered samples of monologues from the 1982 documentary film by Alan Greenberg "Land Of Look Behind" are used to reference the Jamaican Rastafarian culture and peoples struggles, themes which are ever present in reggae music as well as in early Dubstep.

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[11] The exact year of the release is unknown; however it is known that the release is probably made within the span of these two years.
[12] Loop was taken from the song Archangel.

5.3. Narrative in Dubstep

At the moment Dubstep music genre is quite active in the terms that it is undoubtedly popular and it is constantly being morphed into sub-genres by the vast amount of producers worldwide. Most of them are using digital tools exclusively in their production. Given that nowadays most of the media is digital, these producers can easily plunder other media (besides music) for samples. Following the steps of Hip Hop producers before them they started to look into cinema for audio snippets that would emphasize certain moments in their tracks (usually this is done on the brake). These audio snippets are typically samples of a famous cinematic monologue which is already been critically acclaimed. By remediating cinematic monologue a certain dramatic narrative is added to the track. The goal of this is to raise the tracks artistic value while demonstrating a certain level of cultural knowledge and interest in other arts. One of the examples of cinematic monologue as tool of narrative in Dubstep can be found in the track "Go Ask Alice" by The Widdler which samples few lines by Johnny Depp from the movie "Fear and Loathing in Las Vegas".

Unfortunately, in contrast to rhizome-like narrative of John Zorn's "Spillane" most of the narrative in Dubstep is very much linear. Same vocal sample appears repeatedly through out the track emphasizing the "drop" of a bass line. There are few tracks that are reassembling the nonlinear narrative of John Zorn's work, which is understandable since Dubstep was made to be dance music for clubs. However, all the previous claims show that this music style can offer a lot of space for experiments with narrative.

In this research my goal was to step out of the linear ideology of narrative in Dubstep and create a track that would set a ground basis for my further research in rhizomatic narrative. As I mentioned in previous chapter, I have plundered the audio snippets from the documentary "The Land Of look Behind" which was filmed in Jamaica. In this rather ethnographic film, director Alan Greenberg travels through island and documents the culture and religious beliefs of common people as well as some of the well known reggae artists such as Gregory Isaacs and Mutabaruka. They all share their stories and views of the life in Jamaica during those years. With

the absence of video, the listener of these stories is left with is a classical example of ethnographic field recording. At this point I was able to implement my research in field recordings and sound collage into this work.

In order to achieve the non-linear effect and create a rhizomatic narrative, I have used three non related recordings from the movie backed up with two filed recordings found in various sound data bases. Given the case that all of the monologues are taken from the same film I wanted to emphasize the non linearity by adding field recordings of rain in the forest and ocean liner horn. This way the space and time in which the narrative happens becomes abstract and can not be determined with certainty. Each of the monologues as well as each soundscape place the listener in different sound setting and are in way unique narrative units enclosed in its own time and space. Having several narratives in one track I have also managed to break the linearity of the track itself which renders it unacceptable within the standards of "club-like" music and places it in the domain of artistic research.

5.4. Combining Art and Popular Music

The combination of "high art" music and pop music is generally increasing in digital age. During this research I have found out that more pop music producers are implementing some sort of sound art experimentation in their work then ever before in history. It feels as the gap between so called high art music and popular musical styles is closing in more and more every day. Warner and Cox cleverly noted that technologically adept generation recapitulates the experiments and discoveries of early electronic music. I would add that it is not just the experiments of early electronic music that are being recapitulated but all of the sound art experiments ever done. With digital technology tools and entire collective art history published online at their disposal, modern producers are able to use each and any of these previous research as a part of their own. The flexibility of digital media and its rhizomatic nature is not just allowing all this to happen but also indulging it and making it a standard way of work in the 21st century. How else can we explain the problems with the copy write laws that have spawn all over

the world in the last 20 years then with the desire of modern producers to reshape and recycle previous research done by artists before them?

Digitalization of our culture has made all the material available to modern day researcher who is inevitably going to use it one way or another. In this research, I was led with the desire to map out some of these previous sound experiments and show how they can effectively be used in the production of modern day computer music. Through out these three years of my work I have constantly stumbled upon more and more information and examples that would illustrate some parts of this research or would open up space for expanding it. The conclusion was that nowadays computer music scene is more active then ever. In order to rise out of the ocean of cliché music, one must reach for new methods and means of production. Given the fact that in the digital era semi-professional and professional tools are at disposal to each and every one of us it was only the matter of time when young generations raised in these conditions will start to play with the experiments of Pierre Shcaeffer, Karlheinz Stockhausen or John Cage.

By combining popular music genre with high art music and implementing earlier research in the production of it, the genre can be broaden, diversified and opened to new audience. This has exactly happened to Dubstep in the last two years. Popularity of "unconventional" producers such as Scuba, Burial, The Bug and Scorn among others has attracted new audience to the genre and opened doors to new producers. Same thing is happening to other genres of computer music as well, where artists are turning to new ways of production and sound experiments. Hip Hop artists such as Newark's duo Dalek are probably the best example of combing experimental electronics, industrial noise and Hip Hop. These experiments often do not fall into any preexisting pop genre and they almost in every case create a turf for new experiments and creation of new sub-genres and new music styles.

As I was working with these four different approaches to sound and their combination into one piece I could not but look at how the DJ culture has affected our perception of music. With the development of new audio mixing technology and increased popularity of club music and DJ culture our idea of dance music is constantly being modified. In order to be able to demonstrate their skills in the art of mixing and driven with the desire for exclusivity, many of the DJs started to incorporate various musical styles into their mix tapes. Such actions led to the birth of "remix" and "mash up" culture which are still quite popular among the general audience.

Most of the music from this culture that manages to get the mass media attention usually follows the pattern of a disco, funk or rock and roll hit that is being enhanced by electronic rhythm and thus made more dance club "friendly". However, due to increasing number of independent media on the internet experimental music has started to get bigger attention. Naturally, young producers, who make a majority of electronic music producers (especially in Dubstep), in their rebellious attitude towards the system and its mainstream media, are turning towards more "artistic" approach in their work. In the search for inspiration they start to "dig" through history of sound art or high art music.

One of the interesting facts that I have noticed during my research is that the internet market, digitalization of music and the speed of modern day life are dictating new trends in electronic music production. There are far less musical albums being produced and one can not but notice the increasing number of singles on the market. Artistic range of the electronic music producer is now being forced into a span of two or there tracks that form EP release. If an artist wishes to demonstrate his interest and research in various genres or tools of production he/she is bound to combine them into few tracks.

By combining these four approaches in my research I have come to a conclusion that sound art experiments can and should be used to create modern electronic music. However, this action will not make the final product fall under the club music category but it will point the listener's attention towards these experiments. Combining high art music and popular music can result in sound more pleasant to the ear that is not used to sound of experimental music. In the exception of noise music, most of the experimental sound art is very generous when it comes to sound collage and it can easily be combined with rhythm, thus forming a more recognizable sound aesthetics. Working with different approaches in the production of electronic music opens up a door to new musical styles that can later be refined. Combining atmospheric field recordings, spoken word and rhythm merges music and radio drama into a new artistic form in which narrative and music are equally important. Most importantly this type of production can be used as an educational tool through referencing and the use of narration.

Experiments I have researched in this Thesis are only a small part of the history of sound art. However the results show that all these different experiments can successfully be implemented in the production of popular electronic music and enrich its various styles.

Digitalization of our culture has merged all of our sounds into a collection of zeros and ones. It is our job to take these pieces of sound and assemble new musical forms. In the end I must agree with Ben Neil in his claim:

"Art has spent long enough being cut out from the larger cultural sphere; now its time for art to be connected in a new way to reflect the connectivity of an increasingly global culture"(Neil, 2004).

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