

# The Beauty of Electricity

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An investigation of Electronic Dance Music's roots, culture and future.

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## Abstract

Electronic Dance Music or “House music” defines modern culture: its fast-paced, it’s inclusive, and at times it’s overwhelming. With the prevalence of this genre, it’s necessary to understand its origins in order to properly produce electronic music. My project aimed to grow an appreciation for the art of electronic music while simultaneously strengthening my skills in web development. I utilized well-vetted secondary sources that revealed the early beginnings of this genre and described various turning points in its progress. My research shows that electronic music began in the United States and developed throughout the 70’s and 80’s through a combination of R&B, Disco and Jamaican sounds. Once translated to Europe, electronic music was the proponent of illegal UK raves making headline news. Consequently, it grew in popularity throughout the 90’s. In the late 80’s electronic music and culture would be brought back to the U.S, which expanded the number of electronic dance festivals. To this day, festivals like Burning man and EDC Las Vegas can be attributed to the raves of England, Spain, and Goa, India throughout the late 80’s- early 90’s. I also identified the technologies that create and distribute this music. Throughout its development, analogue synthesizers were used to combine, distort, and achieve new sounds in electronic music. But now artist have migrated over to software synthesizers to achieve the same results of an analogue synthesizer for half the cost and hassle. Once mastered, Artists can distribute their music on platforms like sound cloud, Spotify, and of course through music labels. I utilized my findings to determine an alternative application of this genre as well as the future of EDM in the U.S. I discovered that community dancing offers an alternative spirituality and opens the mind to positive thinking.

This spirituality is achieved by the fusion of technology and art allowing the modern EDM artist to be a spectacle as much as a musician, thus I predict that EDM is heading towards live performances of both music and art. Finally, I built a website that celebrates EDM, which is meant to expose visitors to electronic music and its culture. In summary, my findings show that EDM is a genre rich in culture and is the product of our globalized world. It continues to transform, with technology and spectacle becoming ever more ingrained within the EDM experience.

## Introduction

With the prevalence of Electronic Dance Music, or EDM, into the American music industry it's vital to understand its origins in order to better appreciate and produce this music genre. I studied the developments of EDM from Germany to the U.S in the 1970's, and identified the sources of inspiration for each movement. Also, with an investigation of EDM I identified the instruments used in the production of EDM and the science behind the electronic sound, which is a phenomenon in the history of music. In the process I identified the modes of distributing this genre and analyzed its correlation with the popularity of EDM at the end of the 20<sup>th</sup> century. Lastly, by analyzing EDM culture I formulated alternative applications of this genre in the field of psychology. To understand my findings its necessary to know that EDM (Electronic Dance Music) is an umbrella term created by the American music industry to encapsulate genres such as Dubstep, House, and psytrance (Gibson, 2001; Hesmondhalgh, 1998; St. John, 2009). Similarly I will refer to all the genres within electronic music with the term EDM. I also developed a website, <http://www.electrolove.netne.net/>, ancillary to my research to further portray EDM history, culture, and methodologies. The first page, Tracks, categorizes different genres within EDM – hence the title “Under the Umbrella”- where users can listen to a genre they prefer as well distinguish between different subgenres. The second page, Events, provides information on electronic music festivals around the globe and a firsthand view of EDM culture and experience. The third page, Dj's, includes biographies of five modern artist for users to familiarize themselves with musicians. The last page, Research, is a link to my research report and presentation. My research as well as my website aims to grow an appreciation for electronic music in the US, and by presenting facts and providing relative applications of this

genre I hope to make Americans curious of EDM to encourage EDM production in the United States as well as the world.

## Methodologies

For my findings I utilized several articles from Danecult: Journal of Electronic Dance Music Culture, a peer reviewed open access E-Journal. I also had access to e-books and printed books through the library at the University of Texas at San Antonio. To retrieve my information I made note of phrases from my sources onto a separate word document. I cited all information at time of retrieval and included citations for my sources' source of information using Endnote. I also conducted a phone interview with local Drummer and EDM producer, Mike Gomez. Gomez holds a Bachelor of Arts in Music Performance from St. Mary's University and has 22 years of experience as a drummer, having been a drummer with the Band DRIVE from January 2005 to December 2008. He's recently released the track *closer* and produces under the name *the DMG* on sound cloud. Although he's not a professional EDM artist he's highly qualified to speak about drum machines, music hardware, and software in the production of electronic music.

Methodologies for website:

To create electrolove.netne.net I utilized Visual Studio Code, by Microsoft, to write all markup for the site. I utilized the following technologies: Hypertext preprocessor (PHP) language, Bootstrap, and Cascading Style Sheets (CSS). First I utilized Bootstrap, which is an HTML, CSS, and JavaScript framework by Twitter, to create the site's menu. Then I utilized PHP to apply that menu as well as header information to all four pages of the website. All other content was achieved with Bootstrap, which allowed me to make the website responsive to various screen

dimensions. For the main page, I embedded several playlists, from soundcloud.com, representative of each genre within EDM. I utilized PHP to position and style a link for each playlist into a table format with a heading. For the events I embedded a YouTube video of each event and utilized an optimized-video embed tool by techbrij.com to optimize the videos and shorten the page load time. I then researched each event and wrote a small informational paragraph below each video. If the user is interested in attending the event I included a button, which follows a link to purchase tickets at the vendors' website. Next, for the Dj's page I collected five images, with credit given to the photographer, of the world's most recognizable Dj's. I then researched each Dj and wrote a biography of their careers, lives, and accomplishments. Lastly, the Research page is still under development, but will contain links to download my presentation and research report.

## Findings

EDM has various origins, each of which contribute to modern electronic music. First the German band Kraftwerk, formed in 1970, heavily influenced American electronic producers (Colombo, 2010; Pope, 2011). Kraftwerk is the result of Germany's krautrock movement, which consisted of Avant-grade music technologies and techniques. Specifically, the experiments of Klaus Schulze in Berlin created the concept of electronic music which would then be used by Kraftwerk to sculpt sounds of industrial Germany (Hillegonda, 2009). At the same time in the United States, the R&B group *The Trammps* combined a 4/4 drum beat, with a bass line, and a guitar rhythm to create the groovy sound of Disco in 1972 (Colombo, 2010). Both Kraftwerk and Disco laid the foundation for the creation EDM in the United States.

The disco era would evolve throughout the 70's, with its inception in NYC, and create the idea of dancing to pre-recorded music (Lawrence, 2003). Dj's, such as Dj Frankie Knuckles, would begin developing EDM in 1979 in NYC once disco was going out of style. The lack of Disco releases forced Knuckles to edit his Disco-records on a reel-to-reel tape to keep his crowds dancing (Matos, 2015). By the time Disco officially died in 1981, Knuckles experiments had appropriated disco into a new music genre: House. Specifically, the invention of the cassette tape allowed Knuckles to record his sets and share them around Chicago. By 1983 Knuckles' music had become so popular that, bars in Chicago would display banners stating, "we play house music here": this new genre took the name of Knuckles' club *The Warehouse* (Matos, 2015). Innovations in Chicago, by Knuckles and other Dj's such Ron Hardy, would translate over to the Detroit party scene.

Three Detroit-teens, Juan Atkins, Derrick May, and Kevin Saunderson would create a new branch of EDM called Techno by fusing the works of Kraftwerk with American R&B music (Colombo, 2010; Hesmondhalgh, 1998; Matos, 2015). Essentially, the trio was making electronic sounds "Funky" and taking inspiration from Soul music that was native to Detroit (Matos, 2015; Pope, 2011). The sound of Techno is soulful at its core, it uses a 4X4 drum beat, and is characterized with a retro sound. This sound was achieved through the use of old music hardware such as the Roland TR-808, 909, and 303 analogue synthesizers. Before the 1980's, analogue synthesizers were only accessible by record labels, so when digital synthesizers were released artist like Kevin Saunderson could afford older synthesizers (Colombo, 2010; St. John, 2009). This accessibility of DiY (Do it Yourself) technologies prompted Detroit and Chicago artist to produce and release music independent of a music label (Hesmondhalgh, 1998; Lawrence,



2003; Pope, 2011; St. John, 2009). And the accessibility of music Technologies throughout the 80's would lead to the popularization of Detroit techno with global crowds (Hillegonda, 2009; St. John, 2009).

By the mid 1980's, House and techno music was becoming global through the exchange of cassettes between American and European Dj's (Matos, 2015). English Dj's, such as Paul Oakenfold, would hear the sounds of Detroit Techno and Chicago House in Ibiza and bring it back to English clubs. In 1987 these newly discovered genres would be modified to create the Acid house movement which lasted until 1993(Hesmondhalgh, 1998; Lawrence, 2003). The Acid house movement brought global attention to EDM through the large illegal raves hosted in empty fields throughout the UK; these raves would attract people of various ages and race with the promise of MDMA and good music, hence the name Acid House. The music played at these events was a fusion of Detroit techno with psychedelic sounds achieved through a Roland TB 303(Colombo, 2010). The Acid House movement developed quickly in the UK and would then be brought back to the United States in 1988 (Lawrence, 2003; Silcott, 1999; St. John, 2009).

First spreading out to Western Europe, Europe popularized the underground dance scene that first developed in the Midwest. By this time, Entrepreneurs saw potential in rave culture and financed large-organized raves across the United States. Also, Major Record labels began buying smaller dance labels to cash in on the momentum of EDM in the United States. By 1995, EDM was no longer underground but an established genre with corporate interest, and with the assistance of the internet EDM became a globally recognized genre (Gibson, 2001; Hesmondhalgh, 1998; St. John, 2009).

Throughout the 21<sup>st</sup> century EDM has grown in popularity, something noted in the rise of massive festivals like Tomorrowland. Now that EDM is popular artists are constantly releasing new content, which has standardized the genre (St. John, 2009). For example an artist, such as Tiesto, will perform at various festivals to promote their music while simultaneously developing new content. The artist then releases their new tracks at a massive festival like Ultra before posting it on social media for mass consumption. Once their music is no longer popular it's back to music festivals and the process begins again. However, now that fans are engaging with DJ's and are attending events draped in aesthetics, fans are no longer satisfied with just music (Gholz, 2011).

Fans would have quickly been bored by a DJ behind their decks, something that consisted of the early dance scene, however because of performance aesthetics festival brands have been able to keep fans engaged. For example, EDC Las Vegas includes art installations, carnival rides, dancers, uniquely designed stages... and of course a DJ to entertain its attendees ("EDC Experience, "). Thus, the future of EDM will become ever more dependent on performance aesthetics, especially as the genre expands in Asia and South America (Watson, 2016). High growth markets such as China have provided a new fan base for the EDM industry with very sophisticated events and clubs opening in the region, according to a 2016 IMS report (an annual conference concerning Electronic Music) (Watson, 2016). Thus, EDM will be even more popular in the future with events and artists stemming from all over the world. Along with this growth we can expect a change in the performance of EDM.

With an increasing number of artists begging to perform their music live, EDM will be heading towards a live production of music (Gomez, 2016; Jones, 2016). Specifically, an

electronic Group called *Disclosure* has created a custom setup to perform their music live. The setup includes a Roland TR-909, a synthesizer, and drum pad that allow the artists to easily transition between songs and create a variety of sounds(Jones, 2016). Other developments in the live production of EDM include a custom instrument created by the *Glitchmob*. This instrument consists of musical surfaces for the artists to collaborate on stage just as an acoustic band would(Jones, 2016). Although EDM has yet to reach maturity its continued development will bring new ways of producing and performing a track to ameliorate the genre. However, since the beginning of EDM up until its present day the methodologies and science behind the electronic sound has been largely disregarded in the appreciation of this art. It's important to understand exactly how electronic music is made to better appreciate as well as properly produce EDM.

Electronic Music is produced with a variety of instruments including synthesizers, digital samplers, drum machines, drum pads, and software synthesizers (Gomez, 2016; Nardi, 2014; Snoman, 2009). Electronic sounds produced on music hardware are achieved by using an electric pulse to distort sound waves. This pulse combines sound waves out of sync to produce a new one, something controlled by the oscillators and modifiers on the instrument(Snoman, 2009). However modern day EDM artist have migrated over to a DAW, or Digital Audio Workstation, to create, mix, and master tracks all in one place. Some popular DAWs include Ableton live and Logic. These tools include virtual instruments such as synthesizers and are preloaded with hundreds of sounds of which the artist can choose from (Gomez, 2016; Nardi, 2014; Snoman, 2009). Additionally, artist can record live instruments and manipulate them in a DAW to create even more sounds.

Once an album is made, artist can directly release it to the world through Internet services such as Soundcloud, or artist can let their record label do the work of distributing an album(Gomez, 2016). The majority of Electronic music is distributed through streaming services, with 54% of total dance music sales being made through an online platform(Watson, 2016). This has allowed artist to quickly gain recognition by releasing music song by song and not having to release a whole album, but record labels still offer the advantage of promoting an artist to receive more corporate sponsorship (Klein). The business behind EDM by both independent artist and massive record labels has in part fueled its growth(St. John, 2009). But despite the large amount of music developed by both parties, EDM has excelled in part to the unique experience it offers to listeners.

EDM fans dancing and freely expressing themselves through the music is reminiscent of tribal gatherings, and the controversy associated with use of Ecstasy(MDMA) at raves is a motive for youth to engage in EDM culture(Sheridan, 2013; St. John, 2009). As a result, EDM is a mode for which youth to rebel against the rigidity of society and authority, much similar to the hippie movement of the 1960's. American counterculture of the 60's and its interest in acid would also influence the use of Ecstasy into dance culture (Lawrence, 2003; Partridge, 2006; St. John, 2009; Turner, 2006). Thus the EDM movement is a modern day counterculture where free expression and spirituality are achieved through music. This leads me to imply that spirituality and relaxation are an alternative application of this genre. Specifically, people who struggle with anxiety and depression can dance to EDM to release the frustration within them. Hopefully through this process people can remember their purpose and give themselves value (Lovink, 2016; Sheridan, 2013; St. John, 2009; Veen, 2010).

## Conclusion

In conclusion my research shows that EDM is the result of Disco and R&B music in combination with new music technologies. The rave culture that stemmed from EDM derives its practices from 60's counterculture, and rave culture is a modern counterculture that seeks self-expression through music. As EDM progresses we can expect to see an advancement in performance aesthetics assisted with the live performance of EDM. In the process artist will use a combination of software and hardware to continue expressing the sounds of modern society. Along with modernization, Music Labels and streaming services have become the primary mode of distributing EDM for global audiences. Additionally, people can express themselves through EDM to transcend their psychological issues, and the unique experience that EDM offers to its listeners will continue inspiring Dj's and audiences around the world.

For [electrolove.netne.net](http://electrolove.netne.net) I strengthened my abilities as a web developer by learning to use a new technology called Bootstrap. Additionally, I learned to how to properly structure a website with PHP script to work efficiently(Welling & Thomson, 2008). I first plan to post this report and my presentation on EDM in the research section of the website. Then I will continue enhancing the user experience and plan to implement a Content Management System to update the content of the website periodically.

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