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# Synthesized: A Narrative Exploring the Perception of Analog Synthesizer Enthusiasts' Identity and Communication

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SYNTHESIZED:  
A NARRATIVE EXPLORING THE PERCEPTION OF ANALOG SYNTHESIZER  
ENTHUSIASTS' IDENTITY AND COMMUNICATION

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A Thesis  
Presented to  
the Graduate School of  
Clemson University

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts  
Communication, Technology, and Society

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by  
Christoph Stefan Kresse  
May 2015

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## ABSTRACT

This document is a written reflection of the production process of the creative project *Synthesized*, a scholarly-rooted documentary exploring the analog synthesizer world with focus on organizational structure and perception of social identity. After exploring how this production complements existing works on the synthesizer, electronic music, identity, communication and group association, this reflection explores my creative process and decision making as an artist and filmmaker through the lens of a qualitative researcher. As part of this, I will discuss logistic, as well as artistic and creative, challenges. This includes how I negotiated limited access, resources, time constraints, selecting an event and potential participants according to set parameters, lighting and acoustic conditions at venues, avoiding copyright violations, obtaining proper permission to film, and the scheduling of production and editing.

The production of *Synthesized* is the story of my process of deepening and challenging my own understanding of the culture of analog synthesizer enthusiasts; field observations and interviews, gathering and exploring relevant documents, and other interpretive and creative processes of knowledge production were part of the documentary filmmaking process. Consequently, the production process overlaps with aspects of traditional qualitative research. This paper will take a closer look at the relationship between data collection and filming, as well as footage review, editing techniques, and theme selection, and how they relate to qualitative analysis. It is my hope that these reflections will eliminate the notion that data collection can only be undertaken in a purely scientific manner and that the lines can blur between creative exploration and traditional research.

## DEDICATION

I would like to dedicate this document and my documentary film to my lovely wife, Stephanie Pack, my German and American families, Freddy and to all who have supported me through this long and challenging, but rewarding, process.

## ACKNOWLEDGMENTS

I would like to acknowledge the tremendous support and help I received from Moog Music Inc. in Asheville, North Carolina, the local electronica and synthesizer communities in Asheville, Austin, Boulder and Atlanta, the faculty of Clemson University's Communication Studies Department, all artists and builders who participated in my documentary, as well as Eric Fermin, Rebel Waltz Management, Rob Sheridan and Trent Reznor, who inspired me to create *Synthesized*.

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## CHAPTER ONE

### INTRODUCTION

The creative project and documentary film *Synthesized* is the result of several months of research on the subject of analog synthesizer instruments with focus on the people who use them, and identify or express themselves with the technology.

As researcher, filmmaker, and active participant, I became interested in a deeper understanding of the analog synthesizer scene and I took a closer look at members' practices and behavior, as well as their perception of their identities as analog synthesizer enthusiasts. The documentary draws from archived interviews and field observations, with the aim of providing an audiovisual narrative, which contributes to documentary work on the synthesizer, electronic music and group association, and other scholarly work on social identity, perception, and communication. The artists I interviewed described their personal experience, emotions, and perceptions on subjects such as the concepts of mainstream and underground, and analog and digital and the relationship between them. Furthermore, I will be introducing the viewer to key figures and synthesizer instrument advancements relevant to my documentary, which will connect to ideas like an industry and consumer-driven analog synthesizer revival. The documentary also explores ritualized behavior, shared practices, and artistic and technological beliefs within the analog synthesizer scene.

Having been a professional musician for almost three decades, and with an interest in music technology, communication, and human behavior, I believe this study is of scholarly (as well as public) importance as it addresses interdisciplinary issues of

performing arts, technology, social studies, and communication, which will be addressed in my literature review.

This written documentary companion will reflect my journey as a filmmaker and researcher, and will take the reader inside the review, production, and editing processes. In Chapter two, the literature review, I will discuss reflections of existing works on the analog synthesizer, electronic music scenes, group affiliation (and the importance to gather and fellowship), communication and identity in book, academic journal, and film format, and how it relates to my observations and subject of interest. For example, the relationship between mainstream and underground and the resistance or acceptance of digital tools within the analog scene will be examined. Chapter three will take a closer look at the process of building the interview and observation archive. This will include a consideration of the ways that ethnographic data collection and documentary production overlap. And in the final portion of the text, Chapter four, I will reflect on the documentary film as an alternative knowledge-building process. In this section, I will also include findings and present insights that I gained as result of the process. Some insights will relate to the production process and resolutions to technical and logistical challenges while others will describe ways that challenge previous assumptions and existing findings.

### **Motivation for the Documentary Film**

As a researcher with a strong creative and artistic background, rather than a purely scientific one, I was keenly aware of the power of documentary work to offer a unique and compelling vision of the musical and technological culture I wanted to study.

For this reason I made the decision to turn this academic research project into a creatively inspired documentary film.

For three years I have been an active part of the local synthesizer community and electronica music scene; however, in addition to my personal investment in the subject matter, I also brought a scholarly interest, as there are noteworthy gaps of documentation and research in past written and cinematic works. These gaps include a failure to address the synthesizer community since the most recent analog revival of 2012, organizational structures, channels of communication and identification as artists and users. My documentary seeks to contribute a valuable source of specific information and new perspectives about analog synthesizer culture.

*Synthesized* has potential value for a large number of audiences. For scholars, the film addresses the idea that community, personal, and artistic identities are formed through shared musical practices, highlighting the importance of fellowship and exchange, as well as the power and meaning behind symbolic and ritualized behavior and relationships between technologies and movements. For the public, it provides an interesting, entertaining, and informative introduction to the analog synthesizer scene.

## CHAPTER TWO

### REVIEW OF LITERATURE

The literature review section of this production reflection focuses on research and past documentary work that explores the importance of human beings desire to gather, fellowship, exchange, and participate in rituals and traditions. It will furthermore highlight past explorations of self-identity perception and group association. The section will cover examples of research on identity as a central element of human existence and the importance of relationships, association, and communication. Research on relationships between individuals and society is explored through the examples of anti-establishment movements of the 1970s and 80s (Punks and Skinheads), the Dubstep electronic music underground scene of Bristol in the United Kingdom of 2006, the White Power Neo-Nazi music, as well as the Chicago Electronic House music scene and the Brony Movement.

Identification and willingness to maintain traditions, rituals, and association with culturally relevant themes are explored in print and film media. These themes will be underlined by the importance of symbols, rituals, and commodities that may be used to communicate social identity. Furthermore, through the examples of past synthesizer or electronic music-related documentaries and literature, relationships between instrument design, sound and identity perception are introduced, as well as basic historic elements of technology advancements, key figures, and past identity impressions. Research on culture group self-perception is explored through themes of mainstream versus underground and what defines a subculture, scene, or movement.

## **THE ANALOG REVIVAL**

In order to understand the sentiment and captivation for analog circuitry synthesizer technology, my documentary inquires about the artist's notions toward a revival of this music technology and how far historic key figures and their inventions have affected them. My film introduces electronic music pioneers like Léon Theremin, Robert Moog, and Don Buchla, as all three artists directly draw connections to my documentary. These connections lead directly into the presented Moogfest event and also show their influence on the artists in the film, as well as their association with certain analog synthesizer instruments. A brief acknowledgement of the synthesizer timeline from 1960 through the 2000 is necessary, in order to give the viewer a background on why the instrument is once again significant to many contemporary artists.

### **THE HUMBLE BEGINNINGS**

Although synthesizers were invented at the beginning of the 20<sup>th</sup> century with Russian inventors like Leon Theremin (inventor of the Theremin), I will begin in the 1960s when synthesizers became a staple in pop music (Reese & MacLean, 2010).

Robert Moog, who was mainly engaged in electrical engineering, was captivated by the technology and sounds of the Theremin. The Theremin, which began as a project to create a velocity-sensitive alarm system, turned into a touch-free musical instrument using electrostatic fields to generate sound (Gaeta, 2013). Robert Moog initially used the Theremin for selling build-it-yourself kits around the U.S. and ultimately formed his own synthesizer company at the age of 19 (Deutsch, 2014).

Moog and composer Herbert Deutsch met at the end of 1963 and began to

collaborate on what would become the first tactile analog synthesizer combining a voltage-controlled oscillator and amplifier module with an attached keyboard to trigger responses (Gaeta, 2013). Throughout the 1960s, Moog's success with creating some of the world's most unique, electronic-driven instruments spread across the U.S. and even to Europe. Wendy Carlos' LP release "Switched-On Bach," recorded in 1968, was ultimately responsible for Moog's breakthrough as a "utopian" instrument builder (Grenader, 2014). The album's success introduced the synthesizer to a wider audience and made the name Moog synonymous with the instrument. Hoping to capitalize on the new sounds that synthesizers made available and match Carlos' commercial success, numerous studios, producers, and musicians' acquired Moog modular synthesizers (Apple Logic, 2010). George Harrison of the Beatles, Ray Manzarek of The Doors, and Jimmy Page and Robert Plant of Led Zeppelin are only a few of the artists who showed a major interest in modular synthesizers (Gaeta, 2013). Meanwhile in California, engineer Donald Buchla worked on his own design for a modular, voltage-controlled synthesizer unit (Rolando, 2013). Almost instantly adapted by artists of the psychedelic and avant-garde scene of San Francisco and Berkeley, Buchla's synthesizer enjoyed more popularity than Moog's instruments (I Dream of Wires, 2013). At this point units were not very user-friendly, required a significant amount of expertise and space, and could only be purchased by wealthy musicians or institutions (I Dream of Wires, 2013). Moog recognized this problem and the fact that the traditional music retailers would most likely pass on stocking his synthesizers. ; in 1969, he therefore collaborated with engineers Jim Scott, Bill Hemsath, and Chad Hunt to design the first synthesizer of its kind, the

Minimoog (Apple Logic, 2010). The Minimoog would be the first compact, portable, affordable, and easy-to-use synthesizer on the market (Deutsch, 2014). Compared to the old stacks of modules, circuitry was now hardwired in the factory, and a keyboard to play musically was integrated into the chassis of the Minimoog, making it a more musician-friendly instrument (Gaeta, 2013). During the 1980s, the synthesizer and keyboard industries celebrated their heydays. As modular unit sales declined, analog/digital hybrids were in big demand (Thomas, 2014). The New Wave and Pop music movements are partially responsible for keeping synthesizers alive and carrying the legacy onwards in the music mainstream (Smith, 2014).

### **THE DEMISE OF ANALOG SYNTHESIZERS**

The emergence of Grunge Rock and the Punk Rival at the end of the 1980s and beginning 1990s marked the official end of popularity of analog synthesizers in popular music (Gaeta, 2013). At the end of the 1990s, music technology oriented toward digital platforms to recreate vintage sounds. “Computer emulations of analog synth architecture were frequently indiscernible from the real thing, with those instruments (both real and virtual) that seek to use digital technology to push the boundaries of traditional synthesis often do so with great success”(SOS, 2014). While the convenience of having the entire synthesizer rack stored on the laptop and the ability to afford classic keyboards without large price tags found a target audience, there was still an urge for actual hands-on control, tweaking knobs, patching cables, and being kinetically involved in the process of sound creation (Thomas, 2011).

## THE ANALOG REVIVAL

While mainstream consumers enjoyed the mobile aspects of technology and digital clarity, there was a sense of nostalgia and an awakened interest in analog and vintage sound and picture that sparked a revival in 2003. “This movement is driven by the desire in part by a desire to take back control from the standardized settings of digital gadgets, but also an aesthetic appreciation of the items themselves and their output” (Freeborn, 2012). Independent music stores saw an increase in vinyl sales and, simultaneously, many popular artists decided to re-release entire catalogs as vinyl records, challenging CD and MP3 sales (Freeborn, 2012). “People want to own the record as an art form, and that’s how they see it – it is art, not just a piece of music. Buying vinyl is about having something that you can treasure,” (Hickman, 2012). Artists expressed a new desire for hands-on approaches in music and photography. “The photographer selects their own unique combination of camera, lens, film, exposure, processing technique, and creates a little work of art that is uniquely theirs – it could never be exactly replicated by anyone else,” (Freeborn, 2012). Artists were missing the ability to be directly involved in the creative process, held back by mouse clicks and keyboard entries and separated by a monitor screen (Gaeta, 2013). “In our virtual lives things that you can touch, hold in your hands, unpredictable originals gain a new fascinating value. They become somewhat soothing and endlessly inspiring,” (Kaps, 2012). There was a clear understanding that analog instruments could achieve results that digital ones lacked in sound and richness. “These ancient monsters are finding new life for several reasons, among which are their big, fat sounds, their playability, the flexibility, they offer with

signal paths that can be altered by repatching a cable, and the fun their operators have twiddling their knobs,” (Oppenheimer, 2006).

Another contributing aspect to the new popularity of modular analog synthesizers was the fact that musical tastes had changed. “When analog modular synths first came on the scene, they were an instrument of choice for the avant-garde,” (Oppenheimer, 2006). While in the past emulating with sampled instruments was a widely accepted practice, analog synth instruments never sounded as good as the real acoustic ones and digital counterparts pushed bad emulations aside (Oppenheimer, 2006). “But today, it’s okay for music to sound overly electronic. In fact, with many types of dance music, electric and acoustic instruments are most noticeable because they are surrounded by synthesized textures and beats,” (Oppenheimer, 2006).

The analog revival (or as some enthusiasts call it now the first revival) which, according to Thomas (2014), happened somewhere around 2001, is clearly what inspired most current enthusiasts to be involved with the instrument. The new analog synth resurgence of 2014 and 2015 is highlighted in my documentary as it is directly connects with the artist’s perception of the technology and their identity as a user. Furthermore, it gives us an insight of their sentiment toward their engagement in the analog domain and how far they accept or reject virtual instruments.

## **RESISTANCE- AUTHENTICITY AND ANALOG FAVORITISM**

My documentary explores how members of the analog synthesizer community understand, connect to, or resist the digital music production. The notion of resistance toward technological advances or newer standards of the mainstream are not a new issue.

Hebdige's (1979) published work *Subculture — The Meaning of Style* focuses mainly on Britain's youth subculture and their symbolic forms of resistance against the establishment. It analyzes the individual styles of specific scenes and movements like teddy boys, rockers, punks, and Nazi skinheads (Hebdige, 1979). In cross-referencing my documentary, I also find a certain resistance toward non-analog technology. However, as it was pointed out to me, during additional interviews held at the Moog Music factory in Asheville, North Carolina, the resistance toward digital software was not directed toward the actual technology but is more of a question of sound authenticity and practicality (Gaeta, 2015). It is that authenticity that drives individuals to seek the fellowship and exchange with like-minded members as they communicate on the same level of technological and artistic understanding (Rolando, 2013). The majority of interview participants did not see the use of digital software synthesizers as a negative. According to Thomas (2014) of SoundToys, there are certain things that can be accomplished by software that would never be possible with an analog synthesizer, due to its sonic and specific functionality features.

While the sentiment of vintage, analog gear may have been covered fairly well in some of the literature and documentary films, the association between the technology leading toward a seeking of exchange and membership in a community were not highlighted. Questions of the relationship between analog and digital synth technologies were also just briefly mentioned, even though they heavily influence synthesizer users' perception of identity and therefore the willingness and necessity to be part of a group. The interviewed participants were questioned directly about their feelings of claiming

membership within a local community, translocal scene, or even virtual group. To capture this sentiment for association would be difficult through observation, unless someone displayed their affiliation with a t-shirt, baseball cap, logo, or other printed materials; however, the interview segments provided a substantial amount of new insight. Rick Reid, from Boulder, Colorado, mentioned during his interview at Moogfest that his local and translocal affiliations were fostered through virtual connection, which not only allowed him to be part of a global scene but also assisted with finding like-minded individuals in his local area.

## **SECTION SUMMARY**

In summary, the counterculture of analog synthesizer enthusiasts does not necessarily express an exclusive sentiment for analog technology and allows bleed-over into the digital domain for one reason or another. As a matter of fact, it embraces the use of digital technology to some extent, as there is “a time and place” for digital and analog (Thomas, 2014). However, core values of tactile operation, tighter connectivity with the instrument through hands-on approach, and a sense of sound nostalgia present a certain resistance toward computerized music production, which should not take place in front of a computer screen (Crabtree, 2014). This hands-on relationship with the technology was also deemed as more intimate than being separated by a computer screen (Gaeta, 2015).

Hebdige (1979) notes that subcultures bring together like-minded individuals who feel neglected by societal standards and allow them to develop a sense of identity. However, this urge to belong was not highlighted in any of the synthesizer or synth-

related text and documentaries, which leave room for a much-needed exploration through my documentary film.

Aspects of strong identifiers for participants are of importance to shape and identity and drive the interest to fellowship and gather. In a certain social group that can also include distinctive symbolism attached to clothing or, in our case, music or music instruments (Hebdige, 1979). This symbolism is often interpreted as a crucial part of a subculture's identity (Hebdige, 1979). This synth-symbolism was never mentioned in any of the existing works and therefore my film is also exploring the importance of being associated with a certain brand or maker. This association of iconic brand analog synthesizers symbolizes a certain degree of timelessness and nostalgia to some and a way to fuse the old with the new for others (Gaeta, 2015). This relationship furthermore fuses with other subjects in the documentary, like the discourse between analog and digital or the semiotic connection between the two.

Identification and willingness to maintain traditions, rituals, and association with culture-relevant themes are explored in print and film media. These themes will be underlined by the importance of symbols, rituals, and commodities that may be used to communicate social identity. Furthermore, through the examples of past synthesizer or electronic music-related documentaries and literature, relationships between instrument design, sound, and identity perception are introduced, as well as basic historic elements of technology advancements, key figures, and past identity impressions. Research on culture group self-perception is explored through themes of mainstream versus underground and what defines a subculture, scene, or movement.

## **IDENTITY AND COMMUNICATION**

Communication and identity are deeply intertwined, as one affects the other. Individuals use commodities, association, ideals, and values to communicate who they are and what they believe in as part of our society. The artists presented in *Synthesized* are no different, as they also communicate through the association of owning and performing analog synth instruments, which in turn shapes their artistic identity.

### **IDENTITY AS ELEMENT OF HUMAN EXISTENCE**

*Synthesized* explores how strong the urge is for synthesizer enthusiasts to get together and fellowship or if reclusiveness is a main factor to move the artists to connect only in the virtual domain.

Hecht's (1980) *The Communication Theory of Identity* focuses on individual identity as a central element of human existence to identify a social phenomenon. The theory argues that humans are inherently social beings whose lives revolve around communication, relationships, and communities (Hecht, 1980) or, in my case, an entire local and trans local, or virtual group. The commonness to perform, meet, and interact are the elements, which not only unite the members of the synth social group, but are the building blocks of social identity and phenomenon. Common themes, values, and patterns of behavior in their environment, as well as expression and communication, will define social identity and organizational patterns.

Commonness and patterns of behavior are also spotlighted in the documentary *Bronies: The Extremely Unexpected Adult Fans of My Little Pony* (BronyDoc, Inc., 2012), as well the value of fellowship and the importance of gathering. The Brony

Movement gained popularity in 2010, with young adults (mainly males), being interested in the Hasbro franchise animation TV show *My Little Pony: Friendship is Magic* (Seagalof, 2012). Themes of positivity, love, unity, and acceptance struck a tone, especially with teenagers and young adults who are socially reclusive but highly artistic and creative. The TV show and movement's motto "Friendship is Magic" best describes the tight bond of their members (Seagalof, 2012). The members of the Brony Movement show similarities with the members of the analog synthesizer community in regards to providing safe environments to exchange, gather, and fellowship, as well as welcoming passive and active roles within their structure.

"Identity explains the relationship between society and individuals on the basis of roles. Within this framework, a role refers to the functions or parts a person performs when occupying a particular position within a particular social context" (Hecht, Warren, Jung, & Krieger, 2005, p. 260). Identities of a group or scene can be communicated in many different ways. In our case, it could be the process in which the musician chooses to design or program the instrument. Hebdige (1979) states this communication can be complex and is often associated with symbolism displayed in music or fashion. Furthermore he labels this communication of identity as a continual process of recuperation with two characteristics: "the conversion of subcultural signs (dress, music, etc.) into mass-produced objects (i.e. the commodity form), and the 'labeling' and re-definition of deviant behavior by dominant groups – the police, the media, the judiciary (i.e. the ideological form)," (p. 94). A particular scene or subculture communicates their identity through commodities with meanings attached to them (Hebdige, 1979), which

again leads us to design choices of the instrument and possibly even stereotypes of dress and behavior of the members of the scene. Both ritualized behavior and the effect of design choice will be addressed in forthcoming segments of the literature review.

## **SOCIAL IDENTITY AND SENSE OF BELONGING**

Elements of *Synthesized* explored if there is still a divide between scientific, experimental, artistic, and avant-garde identity perception, or if the lines blur almost 40 years later. Omar Torres (Composer and Sound Designer, Atlanta, GA) noted that even though there exists a variety of motives for artists and enthusiasts to choose working with an analog synthesizer, there is a certain uniqueness, passion, and sentiment for this vintage technology that unites them (Torres, 2015). While there has been a stigma of the “scientific user,” exploring purely the technological aspects of the instruments and recording noise rather than actual melodies, it was mentioned by several interview subjects that, even though there are users who may fit the stereotype, most enthusiasts cannot be necessarily labeled as “Synth-Freaks.”

*Analog Days, The Invention And Impact Of The Moog Synthesizer* by Trevor Pinch and Frank Trocco (2002) is, in many ways, similar in its explorations of the historical aspects of Moog’s inventions as the aforementioned Moog film documentary. The various scenes of analog synth users from back in the 1960s and 1970s are described in the book with a clear definition between scientific users and avant-garde musicians (Pinch & Trocco, 2002). *Musical Identities* (Hargreaves, MacDonald & Miell, 2002) points out that one of the factors in deciding and announcing a certain artistic identity is not only to explore who you want to be, but more so who you are. Throughout the

interview sessions, I observed that for most participants it was not necessarily as important to claim a certain identity. It mattered very much to them where they came from, in regards to artistic upbringing, technological influence, and inspiration. For example Gavin Russom (2014) noted at Moogfest that his underground, DIY philosophy toward synthesizers was mainly influenced by his past in the Punk Rock Scene and that he used whatever equipment was available to achieve his creative, artistic goals. The history of synthesizer technology advancements, as well as the importance of association with the original, vintage instruments played a crucial role in some participants' artistic identity.

The identity-shaping aspects for the Bristol Dubstep music scene, as described in Mike Madboy's 2006 mini documentary *Living Inside the Speaker* mainly focused on vinyl records (sizes of records and DIY-made product) and stylistic differences between the sound of the South London and Bristol scenes (Madboy, 2006). While Bristol-based DJs shown in the documentary did not want to be identified as purely Dubstep DJs due to the broad influences of Jungle, Drum n' Bass, Dub, and Reggae music, they made it clear that their scene was supposed to stay manageable, small, and underground, in comparison to the more mainstream-oriented South London scene (Madboy, 2006). The love for analog technology (turntables and vinyl) and the willingness to cross over into the digital domain in production and performance displayed similarities with the analog synthesizer members who, in the majority, agree both platforms are important and have their place in the synth world. With the exception of two DJs in the documentary, most performers and producers did not choose to identify themselves as strictly analog (Madboy, 2006).

The Electronic House Music scene of Chicago during the 1980s and 1990s experienced not only an urging of their members to gather, enjoy music, and dance, but also experienced a blending of different cultures (Hindmarch, 2001). *Pump up the Volume* (Flame Television Production Ltd., 2001) explores the history of the Chicago (and later global electronica House music scene) with focus on key figures who helped invent and influence House Music as we know it today, as well as speaks about producers', club goers', and DJs' perception of their own artistry, scene, and identity. Marshall Jefferson (2001) noted in an interview that with the shunning of Disco music in the 1980s, club goers and DJs hungered for a new sound and searched for a new identity outside of the mainstream pop and rock that could be heard in Top 40s radio. This sense of belonging was also underlined by themes of social acceptance (especially through the gay community); the urge to break racial classification of music and production as House music, in the beginning, featured predominantly R&B and Soul music samples (Hindmarch, 2001). Over the years, the motto of the House scene became simply "House Music is bigger than all of us," (Tong, 2001) a clear manifestation highlighting the importance members placed on the sense of belonging to a larger group of like-minded individuals with similar social identity.

### **SYNTH MEET-UPS: GATHERINGS AS SITES OF IDENTITY FORMATION**

Analog synthesizers are known for their tactile features to control sound parameters, such as envelope, pitch, oscillation, and filters, in comparison to virtual counterparts emulating these functions on the computer screen with sampled, digital content. With increasing popularity and the emergence of new synths module makers on

the market, this young scene was in dire need of a forum to exchange and present (I Dream of Wires, 2012). Synth meet-ups would emerge out of nowhere around the country, informally gathering professional users, makers, and enthusiasts to check out new gear, exchange patching ideas, and drum up business for a new line of modules or entire systems (I Dream of Wires, 2012). Since most analog modular synthesizer systems are not available in retail music stores, this would be the only platform (aside from online stores) where modules and systems were readily available for “test-drive” and purchase (Rolando, 2013). Modular synthesizer systems consist of analog circuitry and sometimes even digital computer-based rack modules that can be mounted and wired together with patch cables to route control voltage (CV) signal flow.

While the United States is the pioneer nation of this new synthesizer movement, with annual meet-ups in Chicago, Asheville, Atlanta, New York, and San Francisco, there are similar events around the globe, namely in Tokyo, Berlin, London, Stockholm, and Milan. Rolando (2013) said while the analog modular (eurorack) movement is gaining in popularity, it is still an underground-type scene and is not as widespread as people may believe. However, as I already determined, even though there may be a sentiment for a true underground by individuals, the reality is all interview participants in my documentary acknowledged a semiotic relationship between the two.

This perception of underground sentiment can also be witnessed within the Bristol Dubstep scene in the aforementioned Madboy (2006) documentary. Despite Dubstep’s growing popularity, especially in bigger British cities like London, the Bristol scene underlined the importance of maintaining smaller scale happenings on a local basis to

avoid blending into the mainstream (Skream, 2006). Events like Dubloaded formed the main outlet for active (DJ and producer) and passive (casual and regular event goers) scene members and were of importance in the exchanging of music that could not be commercially bought or heard in regular music stores (Madboy, 2006).

Moogfest attendees and performers Russom and Smith (Founder and CEO of Dave Smith Instruments) both noted that large-scale events like Moogfest enable a broader audience to be exposed to the analog synthesizer and electronic music world (Russom & Smith, 2014). Smith stated that while smaller synth meet-ups serve a specific portion of analog synthesizer enthusiasts, or as he called them “the hardcore crowd,” Moogfest is most likely of bigger value to promote companies like Moog Music Inc. and his own brand (Smith, 2014).

Christian Birk (founder of the Atlanta Synthesizer Club) established that local synth meet-ups often encourage more reclusive artists and members to become more active within the community (Birk, 2015). This statement echoes the findings of the Brony documentary by Seagalof. The members of the Brony Movement, which started out as just a few hundred people and by 2012 reached a global membership of four thousand, were characterized as highly creative and intelligent, however displayed socially awkward traits and no interest to necessarily mingle or exchange in public forums (Seagalof, 2012). The shared sense of commonality, understanding, and values enabled every fan or enthusiast to be part of something bigger (Seagalof, 2012).

## **DESIGN AND IDENTITY**

The artists in *Synthesized* expressed a strong correlation between their instrument

choice and their chosen identity as analog synthesizer users. *Musical Identities* (Hargreaves, MacDonald, & Miell, 2002) provides me with the framework to understand the meaning and importance of the musician's ability to identify themselves through ritualized behavior, as well as values and attitudes toward their craft and their style of music. This is of particular importance for my documentary film, as I observed a great deal of influence on my research subjects in regards to instrument design, rehearsal and performance behavior and ritual, as well as what instruments are favored. "...music can be used increasingly as a means by which we formulate and express our individual identities" (Hargreaves, et al, 2002). Musical tastes and preferences mean so much more to musicians than just a simple statement; it becomes an expression of values, attitudes, and their own view of reality (Hargreaves, et al, 2002).

Robert Fantinatto and Jason Amm's 2012 documentary film *I Dream of Wires* features interviews with designers and builders, which gives us great industry perspective from innovators. "What started out as a 'vintage-revival scene' in the 90s has grown into an underground phenomena with a growing market of modular obsessives carving ever more wild and innovative sounds and interfaces" (I Dream of Wires, 2012). This statement is aimed at the filmmakers' attempt to explore the identities of the artists and users featured in interviews and observations. The strongest examples in the documentary talking about the relationship between design and identity are segments about synth meet-ups and the new generation of designers and builders. Elements such as the designing of modules with cartoon-like figures and bright colors, as well as newer concepts such as tube-driven synthesizers, are all indicators of a form of communication and

representation of identity. Effect pedals and modules are pushed to the extreme in design and name to separate themselves from the norm of existing designs (Ronaldo, 2012). Metasonix Vacuum-Tube Music Synthesizers are another example of communicating a new identity of the synth scene. Eric Barbour, the founder of Metasonix in Lakeport, California, not only integrated his knowledge and power of tube-driven technology into audio effect pedals and synthesizer modules to attract customers, but also to stand out from the norm (Amm, 2012). Using atypical vacuum tubes, such as the ones made for TV sets and cheap FM radios, he created unique, high-distortion effect machines, synthesizers, and drum machines, which attracted the likes of Trent Reznor (Nine Inch Nails), U2, Nikki Sixx (Motley Crüe), Hans Zimmer (movie score composer of *The Lion King* and the *Dark Knight* trilogy) and Atari Teenage Riot (German Industrial, Digital Hardcore music pioneers), to name a few (Metasonix, 2010).

Vacuum tube technology differs from regular transistor based instruments in that they can be operated in the overload region (past the threshold of 15-20dB) without adding unpleasant distortion (Audio Archive Online, 2015). Another key factor for Barbour was that it had a nostalgia factor, which appealed to many analog synthesizer enthusiasts (I Dream of Wires, 2012).

Users and professional audio magazines, such as *Electronic Musician*, praised the product line as a “colorful approach to design, employing an all-tube audio path in the quest for unusual and sonically extreme products,” (Electronic Musician, 2013, p. 92).

Design and character attributes heavily influenced behavior and identity choices of members within the Brony community as well (Seagalof, 2012). Bright colors and

character traits of the cartoon figures appeal to most and the documentary maker notes that best-selling items are dictated by the most popular pony character (Seagalof, 2015).

While some DJs began using laptops with software like Ableton Live in their live rig, a sentiment for vinyl was very much dominant (Madboy, 2006; Skream, 2006). Vinyl size in particular was one of the identifiers that all DJs shared; 10-inch records were designated for Dubstep and Jungle pressings and 12-inch records were associated with electronica, as the size and length of the grooves correspond with the playing length of the different song styles (Madboy, 2006).

## **TWO VIEWS OF COMMUNICATION**

The communication through ritualized behavior or the representation and preservation of analog synthesizer technology values, traditions, and history, as part of the artists' identity is one main focus of the documentary *Synthesized*.

“The transmission view of communication is the most common in our culture – perhaps in all industrial cultures – and dominates contemporary dictionary entries under the term. It is defined by terms such as imparting, sending, transmitting, or giving information to others,” (Carey, 1989). In my documentary film *Synthesized*, I am focusing on Carey's ritual view of communication. “A ritual view of communication is directed not toward the extension of messages in space but toward the maintenance of society in time; not the act of imparting information but the representation of shared beliefs,” (Carey, 1989). This view of communication enables and supports societal transformation and is characterized by Carey in terms of sharing, participating, and fellowshiping as a group (Carey, 1989). Important elements of this form of

communication are commonness, communion, and a sense of community belonging (Carey, 1989). These elements are also important to my creative project and exploring the group's sense of belonging and fellowship. Commonality in use of the same instrument and technology, as well as terminology, unites all social group members but separates them from the outside world. It is this sense of belonging through shared interests and the passion for analog synthesizers, which influence the members' behavior, communication, and social life.

Identity communication through commonness and representation of shared beliefs can also be found with the Bronies. The members created their own terminology specific to their social group with terms like "20% cooler" referring to self-improvement (a statement which a show character, Apple Jack, employs), "O'C" short for original character and "Ponymerch" for My Little Pony merchandise items (Seagalof, 2012). Furthermore, events like Bronycon or smaller local meet-ups also strengthen the member's willingness to gather, exchange, and communicate on a level that may not have been possible due to social barriers or lack of social acceptance and understanding (Seagalof, 2012).

Clarke (1976) points out that new trends always generate new looks and sounds, and even create rituals that are specific to a certain scene. This statement can be applied to observations with the Bristol Dubstep DJs in *Living Inside the Speaker* (Madboy, 2006). The DJs organize weekly events like "Dubloaded," which became ritualized over time in its playing order of musical styles: Electronica, IDM, and Techno (up-tempo and chaotic) would usually open the evening, and Jungle (complex time-signature based) and

Dubstep (slower tempo) close out the event (Skream, 2006). Madboy (2006) further notes during an interview that Dubstep music also produced a certain look, especially with DJs and producers, (slouch wool cap, baggy pants, and Rastafarian outfits and haircuts) and stylistic sound (darker tones, slower beats, harsher synth, and wobble bass lines) (Madboy, 2006). All these identifiers are used to represent their Bristol Scene and communicate they are not part of the more mainstream oriented South London Dubstep Scene.

Ritualized behavior and communication can also be witnessed among modular synthesizer users in particular. The patching and dialing in of CV signal flow is often perceived by some members as a preparatory act prior to performance or rehearsal (Russom, 2014). Others do not perceive the actual contact with the instrument as a ritual, but more so the regularity of scheduled rehearsals and planned time to engage in music-related activities throughout the week (Gaeta, 2015).

Futrell, Gottschalk, and Simi (2006) probably deliver the best example of the relationship between a scene and communication with their work “Understand music in movements: The white power music scene.” While the article is focused on right-wing extremist movement identities and music functioning as a driving force to explain ideals and organization, it also provides us with evidence for our claims that the analog synthesizer social group is a scene or movement. The authors argue that the members of a scene do not experience a musical performance as a discreet event, but more so as an interconnected chain of situations that all participants can relate to and identify with at large (Futrell, Gottschalk, & Simi, 2006). Furthermore, it is established that the

emotionally laden experience of a gathering or performance can be split into three dimensions: local, trans local, and virtual (Futrell, et al, 2006). This furthermore underlines Carey's ritualized view of communication. The White Power Music Scene clearly seeks to do more than just convey a simple message through music with their audience; they promote a certain way of life, represent their own reality, and strive to maintain their traditions and values within the mainstream society (Futrell, et al, 2006).

Questions in regard to style and design appeal, as well as ritualized behavior and the importance of synth meet-ups, were either just touched on or completely ignored , therefore I aimed to document these subjects in detail as part of my creative film project.

### **SECTION SUMMARY**

In summary, previous research and documentaries have focused on scenes, movements, and subcultures spanning 40 decades during the 1970s, however, there are no specific records of detailed explorations of analog synthesizer users, their organization, urges for sense of belonging to a larger group, or how they characterize their own identity. Through interviews and observation, I am providing a better understanding of how the members perceive the importance of synth meet-ups in order to exchange, gather, fellowship and share commonalities. While authors and researchers highlighted subcultures and scenes of various social groups such as Neo-Nazis, Skinheads, Ravers, Dubsteppers, Bronies and Punks, there is clearly a gap of exploration with the analog synthesizer scene and the synth meet up groups. By reviewing synthesizer related documentaries from the last three decades, it came to my attention that, while all films highlighted either the electronica music or synthesizer scene and their

technology, there was an absence of in-depth information in regards to the actual representation of the interview participant's identity and their channels of communication.

In the production process I aimed to take note of any observations I made in regards to stylistic appearance that appealed or especially stood out to interview participants or event goers at Moogfest. The bulk of these observations were collected and became part of my B-roll footage. Especially DIY synth kits and oddities like long-gone, vintage instruments seemed to catch their interest. Furthermore, I questioned the interview participants about their perception of style, design and sound influence as well as their emotions about ritualized behavior. Footage of the modular marketplace at Moogfest as well as observations at the Atlanta Synth Meet-Up were collected and serve as establishing shots.

### **SUBCULTURE OR SCENE?**

The overall desire to belong to and associate with like-minded individuals is natural for social-beings like us humans (Hecht, 1980). My documentary explored whether this association happens with the artists' perception of feeling closer affiliation to a local scene or a larger subculture. Overall, this concept may seem odd to many artists, as creative minds seek to produce in a reclusive manner and away from being publicly judged. However, (local) communities, which are usually part of a bigger (trans-local) scene, enable all participating members to be either an active or passive part of the group (Birk, 2015). A similar structure also applies to the relationship between a scene and subculture. A scene is a cluster of people with a culture, either distinct or hidden,

which differentiates them from a larger culture (subculture) to which they belong (Chaney & Blei, 2012). Through these dynamics a certain degree of codependence can be determined, which is important for the preservation and maintenance of distinct code, language, culture, traditions, and beliefs.

## **MEANING OF STYLE**

In *Synthesized* I am not exclusively exploring meaning, symbolism, and the appeal of brand and design, but I am also drawing conclusions on what common attributes and choices represent to the artists. Hebdige (1979) argues that “subculture is a subversion of normalcy” and, despite his statement that a subculture, scene, or movement can be potentially seen as negative (the Punk scene of the 1970s, for example, with their demand of public anarchy), he also makes a strong argument that subcultures bring together like-minded individuals who feel neglected by societal standards and allow them to develop a sense of identity (Hebdige, 1979). Furthermore, Hebdige (1979) establishes that scenes or subcultures communicate their identity through commodities with meanings attached to them. In the context of my documentary, this view directs my attention to design choices of the instrument and possibly even stereotypes of dress and behavior of the members of a particular social group.

In the process of reviewing documentaries like *I Dream Of Wires* (Scribble Media, 2012), *Bronies: The Extremely Unexpected Adult Fans of My Little Pony* (BronyDoc, Inc, 2012), *Living Inside the Speaker* (Madboy, 2006) and *Pump up the Volume* (Flame Television Production Ltd., 2001), I noticed common themes that united the members and their respective social groups. One of these themes was that participants

in all groups were seeking attachment, either actively (going to meet-ups, raves, conventions, workshops, and festivals) or passively (connecting through the Internet and/or solely producing without face-to-face contact) to like-minded individuals. Furthermore, certain identifiers like instrument choice (vintage or new, digital or analog), design (colorful, abstract, minimalistic, organized, clean), music (old school, new, innovative, playful, freestyle), medium (vinyl, computerized, visuals), and fashion (casual, costume, formal, hipster look) heavily influenced the members' perception of their group and shape their identities.

Since these themes were not represented in more depth in previous works, it was of importance to address them in my documentary work, as it is connecting to related issues. The interview participants were directly asked about their feelings and opinions toward subjects like instrument choice (preference over instrument makers, technology detail, design, and style), identifiers (identification through, used technology or a certain built, or brand name), and sound (preference of one sound over another). Some of the subject responses were reflected through their answers but also observed by watching the interaction with their instruments/gear or simply by what was available in their environment (studio or stage). I approached these subjects by providing open-ended questions, allowing the participants to answer freely or even express themselves through their technology. One moment in the documentary that reflects identifiers for the sentiment of analog vintage synthesizers is when Omar Torres guided me through his studio gear, explaining in detail when he obtained it, the level of rarity and how he interacts with. Torres also gave a verbal explanation, but I believe that his excitement and

his interaction with the technology underlines how strongly he perceives analog synthesizers and what meaning the instruments have to him as a user.

## **SCENE AND MOVEMENT**

In *Synthesized*, the rallying force behind the community or scene is not only the production or performance and sounds but also the technology (analog and digital) as well as the associated artistic beliefs and perceptions that motivate to seek association with like-minded individuals and groups.

The concept of a music scene is often characterized as a movement in which music is the organizing and rallying force (Futrell, et al, 2006). It is this rallying force that is of importance for most musicians to identify with a scene or ideology on a local, trans local, or virtual level (Bennett & Peterson, 2004).

Oppenheimer (2006) states in his article on the revival of the analog synthesizer that small groups spread across the globe are mainly the driving force behind the resurrection and, ultimately, the ones who will attempt to preserve this vintage music technology. This new interpretation of vintage analog technology ultimately shapes the self-perception for some analog synthesizer enthusiasts.

In my case of analog synthesizer enthusiasts, I would argue these communities exist within a larger scene (we can call it the electronic music movement) where the majority is producing and performing on a digital platform or with digital/analog hybrid boutique synthesizers (dominant culture), but the minority chooses to embrace the analog environment (counterculture), using more vintage-inspired gear (Chaney & Blei, 2012). The group is clearly united in their sentiment for analog synthesizer technology and

celebrates it by hosting small-scale synth meet-ups, improvisational concerts, sound labs, and workshops (I Dream of Wires, 2012).

## **MAINSTREAM AND UNDERGROUND**

Mainstream and underground are always portrayed as though they are in a constant struggle with each other (Thomas, 2014). However, *Synthesized* emphasizes what most people do not realize – that even though those individuals in both worlds live in their own reality supporting their own values and ideals, mainstream and underground exist in a symbiotic relationship (Reed, 2014). This relationship enables both realities to profit from each other and coexist. In the example of the synth world, we see a mainstream-oriented event like Moogfest that promotes instruments that are primarily used by underground or independent artists, which in return inspire mainstream artists to use the technology in their production work. The so-called discourse of mainstream versus underground may in fact be an actual symbiotic relationship. In *I Dream of Wires* (2012) the new scene of analog synth users is labeled as an “underground movement.” However, artists like Trent Reznor of Nine Inch Nails, Detroit Techno artist Carl Craig, and Vince Clarke of Pop icons Erasure can hardly be ignored, as they are now considered part of the mainstream music scene.

Notions of mainstream and underground may shape the user’s perception of themselves and their culture, as in the example of the Bristol Dubstep music scene; however, the dependence on each other is never fully explored. DJs Madboy and Skream acknowledge, when interviewed at one of their outings, that there are two different styles of Dubstep music: the Bristol style (labeled by its members as the original Dubstep roots)

and the South London style, which is more commercial and mainstream-oriented in its club culture and sound (Madboy, 2006). Both DJs made it clear in the interview that this discourse between mainstream and underground definitely shaped their production style, way to perform, sound and therefore their self-identification (Madboy, 2006; Skream, 2006). What is not mentioned in this documentary is that even though both Dubstep styles co-exist and that there may be a strong resistance from the underground toward the mainstream, the South London scene most likely is in existence because of the Bristol scene. In return, it is possible that people who listen to the South London style are most likely to also get interested in listening to the more rooted, dirtier Bristol Dubstep.

The House music scene provides yet another alternative perspective on the symbiotic of mainstream and underground. Chicago House Music legend Marshall Jefferson states in one of the interview segments in his studio that the root members of the scene had to sample vocals and melody sequences from mainstream recordings to create a fresh, new approach to dance music. Thus the new, recycled product of underground music was fed back into the mainstream with the rising popularity of House (Jefferson, 2001). Therefore I am observing displays of a degree of dependence on the mainstream, as it used it as vehicle to drive their own agenda to build their new identity. Similar elements of dependence can also be applied to the analog synth scene then with examples of instrument designers and builders enjoying the fact that mainstream acts do enjoy their instruments as much as their underground/Indie counterparts (Troberg, 2013). According to Smith (2014), he does not differentiate between mainstream and underground; he sees both sides and their willingness to adopt and promote analog synth

technology. In addition, there was mention of the influence of supply and demand that will need to be included in the discussion. Brian Crabtree, CEO and founder of Monome instrument controllers, stated that the popularity of analog instruments was not necessarily rooted in the interest of independent musicians or a hardcore group of analog synth enthusiasts but more so dictated the music instrument's industry to pick up on the hype (Crabtree, 2014). Crabtree noted that, even though there is a resurgence of analog music technology, it all comes down to dependent factors of demand, supply, and the willingness of users across mainstream and underground to spend the money (Crabtree, 2014).

*The Mainstream Post-Rave Club Scene as a Secondary Institution: A British Perspective* by Lynch and Badger (2007) explores the importance of perception between mainstream and underground with the example of the Post-Rave Club Scene. In addition to the mainstream and underground conversation, both authors add aspects of religion and its significance in the electronic dance scene culture. Lynch and Badger argue that the mainstream of post-rave dancers is a secondary institution supporting a new social form of religion that is less strict and more open to alternative marriages and lifestyles. This new self-realization and self-expression can furthermore be seen as an underground identity splitting off the Post-Rave-Club Scene (Lynch & Badger, 2007). The concentration of the article is clearly focused toward a subculture, born out of the mainstream, observing how the members of that new scene perceive themselves and their identity. Similarities can be drawn here between the analog synths scene of the late 1970s

(where Moog's instruments were spread across most genres and on numerous hit albums of mainstream media) and today's scene of new analog enthusiasts and converts.

### **SECTION SUMMARY**

Since most of the literature and documentaries were acknowledging the relationship between mainstream and underground as a discourse or area of conflict, it left me with the question of how and if both realities are existing on a symbiotic basis. By asking the participants directly and through examining flyers and online advertisements, I was able to establish this relationship of dependence and if there was any pure sentiment or pretentiousness. While I was not able to capture observations of this subject, I added visuals into the documentary using photographs and screenshots of synth maker advertisements, as well as mainstream and independent artists who are using analog synthesizers like DEVO (New-Wave Punk icons), Trent Reznor (Nine Inch Nails), John Mayer (songwriter and guitarist), the Locust (Hardcore Punk band), James Blake (British post-dubstep artist), Arcade Fire (Canadian, Grammy-award winning Indie band), and Johnny Greenwood (guitarist in Radiohead).

## CHAPTER 3

### RESEARCHER'S EXPERIENCES

Before I reflect on the actual pre-production, production and post-production process, I would like to give a personal account of my background as an artist, filmmaker, and researcher. I will draw from my own experiences of other music associations and social groups that I have been with over the last 20 years. This will assist me in comparing and analyzing my own exposure with the synth group, as well as drawing conclusions from the collected interviews and observation data.

Throughout the last 20 years I have been performing Scottish bagpipes, drums, percussion, and electronic music instruments, such as analog and digital synthesizers and drum machines. Upon my introduction to bagpipe music in 1987, I entered into a local community of musicians who shared a passion for Celtic music. This community was part of a larger German association with ties to British and global counterparts. Through exchange with fellow bagpipe musicians, I found that each club, community or network had established its own rules and traditions; however, we were all united through a common passion and interest for Scottish bagpipe music, unique terminology, traditions, and rituals. This not only strengthened my personal goals in regard to my music (seeking structure, fellowship, and exchange) but also shaped my identity as a performer and artist. At that time I accepted these perceptions and assumptions about my role as an artist and active member within the community and scene without further exploration.

Later experiences as a drummer and percussionist introduced me to different types of social groups and clusters in Hamburg, Germany. The concept of a music scene

is often characterized as a movement in which music is the organizing and rallying force (Futrell, et al, 2006). As part of my particular music scene, I experienced music not as a discrete event, but rather as an interconnected chain of events I could share locally and trans-locally (Futrell, et al, 2006). Spending hours in rehearsal spaces with the goal of performing in local clubs and concert venues, I ultimately became part of a rock music scene. My participation as a member of the local Indie Rock scene was very much different from being part of a community or club. The enjoyment of creating and playing music together was the strongest aspect; however, there was an absence of a support system, traditions, and rituals. This change affected the social dynamics of the groups I performed with, as well as my artistic point of view and creativity. My fellow musicians and I were no longer bound by established rules and constitutions, and the scene was operating on a free-form basis, sparking more creativity than ever before, but at the same time still upholding a particular kind of professionalism. My activities in the local music scene made me feel as though I belonged to something bigger than just a group of like-minded artists.

In 2007, I shifted my artistic focus from the acoustic to the electronic music world. When I first recorded and performed locally I was not particularly associated with any scene or group. Demographically, the electronic music genre is fairly isolated in South Carolina. Sporadic DJ Raves and isolated Indie Rock concerts are the main platforms for electronic musicians to perform and exchange in this geographic area.

Asheville, North Carolina and Atlanta, Georgia, in comparison, have vibrant scenes of electronic musicians and enthusiasts that go beyond EDM (Electronic Dance

Music). Asheville is home to Moog Synthesizer Company and Make Noise Modular Systems and invites local and out-of-town musicians to perform experimental and electronica music in many city venues. Annual events are even hosted, such as the Mountain Oasis Summit (Electronic Music Festival, 2012-2013) and Moogfest (Art, Education and Music Festival, 2010, 2011 and 2014), however, Asheville lacks the overall willingness to organize and meet on a regular basis with like-minded individuals, like in Atlanta. Atlanta is home of the Atlanta Synthesizer Club, which promotes analog and digital electronic music, hosts monthly meetings and workshops, as well as connects through social media with its members (like the Atlanta Synthesizer Club Facebook group). Over the last year, I formed strong ties with the Atlanta scene and feel as connected and involved as I was back home in the local Indie Rock community.

These past and new experiences naturally raised my interest in exploring and researching how different or identical all of these communities and scenes are in regards to identity perception, sharing of values, traditions, rituals, and behavior and how they communicate these attributes. In 2014, through exploratory studies in Clemson University's Communication, Technology, and Society Master's program, I decided to research analog synth culture and their perception of identity and communication, which motivated production of this documentary.

### **BUILDING THE ARCHIVE**

An essential early step in the production of *Synthesized* was to build an archive that the documentary would draw from. I built an archive that includes recorded video and audio footage of interviews and field observations at Moogfest 2014, the 2014

Atlanta Summer Synth Meet-Up, the Moog Music Inc. factory in Asheville, and studio visits in Atlanta with Christian Birk and Omar Torres.

I used professional grade video and audio equipment to collect the archived footage. Film was created with a Canon EOS 60D High Definition Video Camera as well as with a Flip HD Handy Cam. Additional audio of interviews and observations was tracked with a Dynamic Microphone and Tascam handheld field recorder. All obtained footage is archived on an external hard drive (for backup) and a 13-inch MacBook Pro laptop computer.

### **ARCHIVING MOOGFEST (PRE-PRODUCTION PROCESS)**

The pre-production process of a film or documentary is as important as the actual production or post-production processes, as it sets the parameters for logistics, story, budget, the production timeline, and making relevant connections.

The pre-production phase of *Synthesized* involved building an archive, which was probably the most nerve-wracking task of the entire creative project production process. One of the major challenges was to find locations and interview participants during the spring and summer of 2014. One particularly challenging aspect of this process was that I had to collect my “data” early enough in the year so I would have enough time during the summer to fine-tune the parameters of the project. It was of special importance to me that I be able to access the interview participants in a subject-relevant environment so I could observe them acting in a somewhat natural manner with their studio gear and provide a “safe” zone.

My months-long research in the spring of 2013 led me to decide on Moogfest 2014 as the first event to collect footage and interview material. Moogfest is a week-long electronic music festival, melting together technology, science, and performing arts. The festival has its' origin in Asheville, North Carolina, the home of Moog Music Inc. and was originally meant to honor Robert Moog's legacy. Over the years, it has expanded into a full-blown, urban music festival, featuring a diverse range of electronic music performers as well as workshops, panels, and lectures (Moogfest, 2014).

After studying the list of event participants I decided to contact the general event management company, AC Entertainment, to gain access to the presenters and artists. However, less than a month later, in March, I discovered that AC Entertainment would not be able to assist me with my inquiry and I decided to contact all selected participants personally. This was a calculated risk I had to take, as I could potentially end up with no participants at all and the documentary would be doomed to fail.

Out of more than 100 participants and presenters at Moogfest, I contacted 40 by email and received 25 replies. Once I made the initial contact, I decided to purchase event tickets. The selected participants were panel lecturers, workshop facilitators, or event and concert performers. The final list of participants included 15 interviews with professional users (artists, composers, and performers), instrument designers, and builders, as well as hobbyists; Neil Harbisson (audio visual artist and first human cyborg/U.K.), Gavin Russom (synthesizer builder and artist with LCD Sound system), Brian Crabtree (inventor of the Monome and synthesizer enthusiast), Felix Faire (visual/audio artist, U.K.), Yoon Chung Hang (MIT lecturer and multimedia artist), Herbert Deutsch (design

and engineer partner of Robert Moog), Lori Napoleon (DJ and switchboard synthesizer builder, NYC), Hans Fjellestad (sound designer and film composer), Dave Smith (co-creator of MIDI), Mitch Thomas (Marketing Director of SoundToys and synths enthusiast), Rick Reid (sound designer), Joleen Toner (electronic musician), and Dorit Chrysler (Theremin artist).

Moogfest 2014 fulfilled all of the requirements I set in the pre-production process. In order to guarantee a broad spectrum of interview data and observation, I set two main conditions:

- A) The target group of research participants should include males and females, preferably of diverse cultural and artistic background and broad age range.
- B) Interviews and observations need to take place in a location or environment relevant to the analog synthesizer social group.

Furthermore, I managed to attend the event within a reasonable travel distance that was dictated by the pre-production schedule during the spring semester on a limited travel budget.

The final challenge in the early archive production phase was to obtain the overall consent from Moogfest and Moog Music Inc. to film and interview in all event locations. While I had the overall support and permission from both organizations, I decided to conduct a bulk of the interviews at a central location in Downtown Asheville, in order to minimize travel distance and to have a fallback plan, should one of the event facilities not be available to host me. The alternative location was teahouse on Lexington Avenue, which was not only a well-known landmark in the downtown area, but also easy to access

from all event location in the city. The teahouse was a fairly small establishment with separate seating areas that enabled me to create a somewhat intimate interview setting, with the goal to eliminate as much background noise as possible.

### **INTERVIEW QUESTIONS**

One of the final assignments before the actual event was to craft questionnaires that were both, general and specific, however open-ended enough to allow the interview participants to answer freely. I considered social standing, demographic, gender, technology, and the current electronic music instrument market, as well as the user's emotions and experience when using analog and digital instruments. I explored basic questions as to how the interview participants were introduced to the instruments, their inspirations in regards to their career, the significance of analog technology, and why it is still in use in the digital age of music performance and production. Furthermore, I engaged in questions regarding the exclusiveness of using analog synthesizers compared to digital software instrument that emulate older technology. In addition, I questioned the participants about their feelings towards the assumption of an analog revival, warmth of sound, nostalgia, and the importance of tactile, hands-on control. A copy of the original questionnaire can be found in Appendix D of this document.

Originally, I estimated an interview length of between twenty to twenty-five minutes for each participant, however, due to last minute schedule changes and long, drawn out responses, most sessions ended around thirty to thirty-five minutes.

## **PRODUCTION AND RESEARCH OVERLAP**

I acknowledge that there are similarities in collecting interview footage and field observations through documentary production and traditional qualitative data collection, as I am following some methods of ethnographic study. My embeddedness in the participants' environment with minimal interference allowed all interview participants to behave naturally and give their narrative and perception of their own reality. Not all participants were comfortable to speak in front of a camera, but understood the need for video and audio recording for the documentary. There is always a certain bias present in any research and my creative project is no different. As the main production took place at Moogfest, some of the interview and observations are clearly centered about this particular brand; however, through interviews with artists and instrument designers who are favoring additional companies I am able to offset the bias. Compared to traditional ethnographic research, where data is collected through questionnaires and in-person or phone interviews and field observations relying on descriptive note taking, I believe the creative approach to data collection that I used in the production was more effective and practical. In an age of multimedia stimulation, the visualization of findings is more likely to strike a note with the viewer than just a paper accompanied by photographic images. It will take the viewers into the action and keep them entertained throughout the documentary. The filming of interviews and observations made for a more transparent and fluent process to collect information and I felt that my creative and artistic skills were a complementary asset in the production process. Artistic vision, as well as the staging of light and sound, was as important as scheduling interviews and observations and

following through with the actual production process. Furthermore, I believe that a multimedia method of research, production work, complements archiving and documentation, as it freezes moments in time for generations to come.

## **PRODUCTION**

The production process is the action that defines the entire project. This is where the filmmaker goes out into the environment and turns theory into practice. Production, as explained earlier in production and research overlap, is the creative process of collecting data in form of interviews and field observations. As with every attempt to collect research data or to produce a documentary film, the researcher and filmmaker needs to expect last-minute changes, difficulties, and challenges. Four of these main challenges during the production process at Moogfest included bad lighting, background noise, tight schedules, and the issue of copyright violations.

Bad lighting conditions in some venues and problems with appropriate audio levels (due to background noise or loud music) needed to be overcome in order to collect useable footage. Changing rooms, adjusting the light, or stepping outside the venue, primarily resolved lighting issues. An additional handheld field recorder enabled me to record audio to enhance interviews with background noise. Most locations at Moogfest were very crowded and did not allow for an intimate interview setting. At the same time, I still wanted to be able to film the artists in their environment, and therefore, the recording of additional audio seemed to be the best solution.

While the venues and event facilities at Moogfest offered good material for B-roll footage and establishing shots, foot travel distances were a larger challenge. In addition, I

had to accommodate the availability of all interview participants, which unfortunately led to the cancellation of five interview appointments. Confirmation of interview appointments and scheduled event times and locations were key to my success in the production process. Most documentary participants agreed to exchange cell or hotel phone numbers, which made it easy to connect. Connecting with the artists in a timely manner, to touch base with them prior to interviews and my willingness to accommodate their busy event schedule, helped immensely to make this production a success.

The final challenge in the production process was Moogfest's condition that I would not be allowed to film any performances of artists without prior consent, as I would be breaching copyright law and/or potentially offending performers or presenters. I decided to film performances in public venues, of event goers who checked out demo gear, or artists who agreed to be on camera during a concert.

A total of four hours of raw footage was collected during Moogfest, of which only one and a half hours of segments were selected to be included in the documentary film.

## **POST-PRODUCTION PROCESS**

As mentioned earlier, every aspect of the documentary production is equally important. The post-production process is no different and, in many respects, is probably as important as the actual filming. Not only does the filmmaker have to think about sound design, edits, score, narration, and the creation of an actual script or narrative to tell the story, but analyzing the footage and the identification of research and information gaps are also of great importance.

## **REVIEWING FOOTAGE**

All archived video and sound clips were separated by themes and saved in different folders to avoid later confusion during the actual editing and timeline-sequence production process. After three review cycles, I discovered information gaps, as well as a lack of performance footage, that would show the gear and the users' interaction with it. I decided at least two additional production trips would be necessary to grow the archive and to have a larger pool of interview and observation footage.

### **ADDITIONAL PRODUCTION TO EXPAND THE ARCHIVE**

#### **ATLANTA SUMMER SYNTH MEET UP**

In June 2014, I visited the Atlanta Synth Summer Meet Up and gathered additional footage of performances and workshops with local artists and enthusiasts. The main goal was to shoot B-roll footage, including close-ups of instruments and performances. Incredibly bad lighting conditions were the main challenge on this particular trip, as the performance venue was an old school building basement with low-light conditions and little-to-no natural light. I was able to adjust the shutter speed on my camera; however, the end results were still grainy. Audio was picked up without any problems directly with the camera; the Atlanta Synth Club offered me a soundboard recording if I needed additional audio in the post-production process.

#### **REVIEWING FOOTAGE PART II**

While the collection of additional performance footage provided a great addition of material to my archive, I realized I needed more footage of original vintage gear. Furthermore, I was seeking additional artist reflection on subjects like synthesizer

history, Robert Moog, and digital and analog technology, as well as mainstream and underground.

In January 2015 I decided on two final production trips to collect additional interview and observation footage, as I needed an appropriate amount of film and audio material showing people performing on the instruments I am speaking about in the documentary.

This included Moog Music Inc., as well as Christian Birk of Atlanta (co-founder of the Atlanta Synthesizer Club) and Omar Torres (sound designer and composer) of Roswell, Georgia.

## **MOOG FACTORY**

During my visit at the Moog Factory I obtained permission to film on the company grounds, at the Moog store to be specific. The large shop windows provided excellent lighting for the production and I did not need any additional audio recording sources, as there were no customers in the store and hardly any background noise. Paul Gaeta, who is the Moog store manager and factory tour guide, provided me with additional interview material that was necessary to fill existing gaps in regards to synthesizer and moog instrument history. Gaeta also provided an incredible array of background information on Robert Moog and the company's iconic, flagship instruments. Furthermore, Gaeta performed on the MiniMoog XL, as well as on several digital-based midi controllers. The latter was especially important, as I had no examples of performances in the digital domain that I could compare to analog performances I had already documented.

Out of two hours of recorded material at the Moog Factory, only thirty minutes worth of selected sequences made the final cut in the film.

## **ATLANTA AND ROSWELL**

Later in the same month, I traveled to Atlanta and Roswell, Georgia, where I would meet with the final documentary participants, Christian Birk and Omar Torres.

Omar Torres invited me into his home studio, which was filled with an array of vintage and modern synthesizers, along with some of the most famous and rarest instruments one could collect. Omar agreed to a regular-style interview in his studio, as well as to explaining his set up and gear. He also performed for about 20 minutes on the core of his synthesizer collection, displaying the variety in sound and functionality. Since Torres had a professional set up with good sound monitors, I did not need any additional audio pick up equipment. The bigger challenge was the large studio windows, which allowed an unusual flood of sunlight into the studio, causing excessive light pollution. I was able to counter some of this challenge by repositioning my camera tripod; however, patches of bright light tainted parts of the footage.

Contrary to the aforementioned issue with Torres' studio, Christian Birk's studio did not have any sources of natural light. I began filming in the late afternoon and I encountered issues with the audio pick-up, as there was a large amount of flutter echo and reverberation in room caused by little-to-no acoustic treatment and wood flooring. Low-lighting conditions also caused some of the footage to be grainy in resolution. However, the bulk of the production proved to be useable and I was able to collect interview and performance footage. A total of three hours of raw footage was collected during the visit

with Birk and Torres, of which only roughly twenty-five minutes of segments were selected for the documentary film.

### **FINAL PRODUCTION PROCESS REFLECTION**

I would like to note that it was of great importance to not only stay highly organized throughout the production process, but also to always expect the unexpected and to be able to stay flexible with accommodating last-minute changes. I would also like to acknowledge that it was crucial after each round of production excursions to revisit my material and to take notes on observations, themes, similarities, and differences of collected information. Additional cycles of review and organization were also an important step in the process, in order to stay organized and structured.

### **RECOMMENDATIONS FOR FUTURE PRODUCTIONS**

I learned from the previously names challenges that the timely organization was key in order to achieve my production goals. Furthermore, I realize that the pre-production process can be as intense as the actual production and post-production process. I would also recommend to any other researcher/film maker to never rely on third parties to make the final arrangements for interview appointments and film observations. It is always better to have a direct connection with the participants to establish credibility and to give them the opportunity to request additional information on the documentary project. Ethnographic research depends on the direct involvement of the researcher in direct contact with the study subjects in the same manner, as the filmmaker needs to connect with the participants in the documentary. Any communication through

third parties would not provide an accurate representation of the artist's notions and opinions and possibly not assist to build a trust relationship and credibility.

## CHAPTER FOUR

### THE PRODUCTION AS KNOWLEDGE-BUILDING PROCESS

#### **IDENTIFYING THEMES AND CONCEPTS**

The production of this documentary is not only important in providing a new perspective on the subject of the analog synthesizer scene and artists, but also serves as a knowledge-building process in regard to the overlap of creative production and traditional data collection, as well as to reflect on new findings.

The actual pre-production process began in mid-January 2015, by reviewing all collected footage in the archive. When I went through the interviews, I was paying attention to key words, themes, and concepts, as well as common perceptions and points of opposition, according to the material in the literature review. With the idea of a self-narrated documentary in mind, I wanted to have enough interview material lined up to enable the participants to tell their story. Furthermore, I went through a total of two hours of B-roll footage and establishing shots, ranging from location shots to performances and close-ups of gear, instruments, and equipment. B-roll footage in general is used to display scenes of performance, artifact details, and other points of interest. In the case of a creative project, the B-roll footage also serves as sound clip examples for the viewer. It was crucial to the production to include as many sound clips as possible (video and audio) in order to drive the documentary and give the viewer a better understanding of the technology and instruments throughout the film.

## TIMELINE SEQUENCE

Timeline sequence dictates the flow of events and the narrative within the documentary film. The editing process of footage was an extension of reviewing and organizing the archived material as it laid the groundwork for a coherent timeline sequence.

During the editing and timeline submission process in iMovie, I was driven by creative choices that guided me through the creation of the documentary film. These choices were made to improve the flow of sequence, provide more clarity of subjects and themes, and show actual auditory and visual examples of discussed technology and practice. In order to create a sequence-flowing timeline that would be logical and, at the same time, entertaining and relevant to the key themes in my film, I split the documentary into the following parts: introduction, researcher's experience, brief history, analog revival (with sub-categories: analog sentiment, emotions toward analog technology, importance of analog in a digital age, feelings toward digital technology and the coexistence of both worlds), identity perception (with sub-categories: self-perceptions, how beliefs and attributes are shared, identifiers, practices and rituals that are used and shared, how communication is identified), mainstream and underground, discourse/symbiotic (with sub-categories like collaboration and the importance of gatherings, events and meet-ups, and online presence).

It was important to me to establish how my artistic background inspired this documentary from the first scene. Through the video sequence of me playing the bagpipes and the display of several still photographs, overdubbed with narration, I am

telling the filmmaker's narrative of personal experience. I decided to blend the bagpipe into a modular synthesizer sequence, as it would not only make for a smooth transition from one "drone-based" instrument to the next, but also would help connect my past experience with the present and my current creative project. The segment of Richard Devine, performing at the Atlanta Synth Meet-Up, served as an example for the filmmaker's decision to create a documentary based on the analog synthesizer scene. I was inspired not only by the sight and sound at the event, but also by the overall atmosphere and the variety of individuals and their artistic perceptions and expressions.

The history portion of the documentary has been narrowed down to relevant themes and historic key figures (matched to this written thesis component) as well as edited for time. I decided to include a brief profile of Léon Theremin, as it connected the rich past of the analog synthesizer and its pioneers with the present and more recent figures relevant to the film, like Robert Moog, Don Buchla, and Wendy Carlos. This decision enabled me to include video and sound clips of the Theremin, Moogfest, Buchla synthesizer, MiniMoog, and Moog Modular, as well as interviews with Herb Deutsch (Moogfest interview participant) and Paul Gaeta (Moog Music Factory interview). Furthermore, this section enabled me to draw a connection between Robert Moog, Moogfest, and how it ties in with the new analog revival.

The participants' perception of the analog revival establishes what drives their interest in vintage analog synth technology. This sequence of interviews was important to establish sentiment of users and to explore emotions and personal thoughts.

As I was working on interview material focusing on the discourse or dependence of analog and digital technology, I decided to combine both elements together, as the majority of participants displayed sentiment and usefulness for both platforms. The last segment would address identification, as well as collective ideas of technological and artistic values, ritualized behavior, symbolism, and identifiers. Since communication is linked so closely to identification, I also decided to combine interview segments discussing both themes. The symbiotic relationship between mainstream and underground is highlighted toward the end of the documentary. Here, the user's perception of their own identity varied on a larger scale, ranging from some participants identifying with their use of technology of choice and some not seeing any deeper meaning beyond their musical expression.

“Moogfest Impressions,” an interlude toward the end of the documentary, is supposed to draw a detailed summary for the viewer. It shows several moments throughout the week, ranging from outdoor activities, to concerts, to store demo footage, always with the focus on the variety of artists and event crowd. This assists the documentary to establish age range, cultural diversity, and an overall feel for the event.

### **VIDEO EDITING**

The video editing process can be compared to a creative way of qualitative coding. As already described in the production and research overlap section, I was following similar guidelines as I would in traditional qualitative coding and underwent several cycles of review, labeling, categorizing, and clustering.

By inserting segments and clips directly into the movie editor timeline, I accomplished two goals; I was able to explore common terminology, sentiment, expression, value, experience, and other shared attributes (as laid out in the literature section of this document) and, at the same time, created a visual film script that had a natural flow of sequence and the rhythm of the participants' narration. The categorization of clips proved to be important, as I was able to see connections, link themes and concepts together, and consolidate meaning and explanations. Rather than just looking for loose topics, themes, and trigger words, reviewing and editing allowed me as an artistic and creative researcher to work in a more open-ended environment, leaving room for my expression and interpretation of the topics presented.

One of the challenges in the editing process was the realization that not everything filmed could be used. However, since I had a large archive to draw from, it did not affect the production process too much. Some areas were identified as not having nearly as much interview footage as I was hoping for; that was especially the case when the participants were talking about the relationship between mainstream and underground and ritualized behavior. In other areas I had a large variety to choose from – a good example would be the perception of analog technology and digital counterparts. These examples were telling me as filmmaker and researcher that even though all of the participants had a story to tell and wanted their voice to be heard, they may not have an opinion on all the questions in the production process or did not see any level of importance with certain subjects, as their experience and reality is different.

## **FINISHING CREATIVE PROJECT AND NEW INSIGHT**

The production of *Synthesized* was not only an opportunity to enrich my creative knowledge and experience, but to highlight and reflect publicly on the findings of my research, expressed through the participants' narrative and the use of film. The archive building process offered me the chance as a filmmaker to use my creative vision and influences to build on existing knowledge and concepts, rather than just using a scientific approach. The production process felt organic and natural, resulting in a fluent transition from the review process into script and scene flow.

## **REFLECTION ON ARCHIVING AND PRODUCTION**

In conclusion, and to reflect on my own experience of documentary filmmaking, I would like to note that this type of creative approach to research may not be a good choice for everyone. A certain level of artistic vision and skill, as well as prior production technique knowledge, should be in place. However, for me personally, it proved to be the better solution to present the problem of the selected subject, as I was able to express myself and present in a creative manner. I also would like to note that a high level of organization and the willingness to step outside of the box are necessary in order to succeed and derive strong results. As noted in the production process, sometimes it is important not to trust others to make arrangements, but to take matters in your own hands. This philosophy does not only apply to confirming schedules and appointments, but to all time-sensitive tasks throughout the production process. The realization of opportunity and potential were also important during shoots, as some footage was created out of spontaneous reaction.

Furthermore, reliable tools are a must. Camera and audio equipment must be tested far before the actual production process and even the smallest detail, like spare batteries, should be planned out in advance to avoid possible time vacuum and delays.

During the post-production process, it is necessary that a longer time period is set aside as footage review, time sequence creation, sound design, overdub, and narration will always take at least twice as long as originally planned.

### **REFLECTIONS ON NEW INSIGHTS**

Comparing the actual results of my production process with the existing work in the literature review helped me understand there are simply no ways to categorize the participants' opinions and impressions in a black and white matter. Particularly problems of discourse and symbiotic relationship, as seen with subjects like mainstream, underground, and analog and digital, allowed for gray zones.

**ANALOG AND DIGITAL.** One of my main goals was to find new artist perceptions or interpretations of the relationship or co-existence between analog and digital. The majority of interview participants acknowledged, even though they had a big sentiment for analog technology, that they did not label themselves as purists and welcomed explorations into the digital domain. The sentiment for analog synthesizer instruments was mainly driven by the ability to engage in a hands-on, tactile manner, feeling more connected to the instrument. However, digital technology was a welcome addition for most participants, in order to achieve creative results that would not necessarily be possible with analog instruments. In short, "there is a time and place for digital synthesizers" (Thomas, 2014). In general, the interview participants argued it

would be fairly difficult to go entirely analog in a world where we use digital technology on a daily basis, as well as to record, edit, connect, create, and perform. Synth builder Mickey Delp (2014) mentioned the example of digital “mini-computers” in analog Eurorack modules. Resistance toward digital technology was out of creative and ecstatic reasoning, rather than avoiding it for the sake of being different, pure, and true toward analog instruments. One new concept was presented by Russom (2014), who compared his relationship with analog to a natural one like electricity. His reasoning behind this statement was that the flow of electrical current was something real, something natural that could be used to create music. The British audiovisual artist Felix Faire (2014) added that digital, to him, has not a natural but abstract meaning, as you are confronted with ones and zeroes. It was new reflections like these that brought a unique flavor to the topic and contributed to the main goal of presenting new findings.

**MAINSTREAM AND UNDERGROUND.** When I explored the discourse of mainstream versus underground, I received an equally high number of participants agreeing that there is no true underground and that both worlds actually exist in a symbiotic relationship. According to some participants, the blending and dependence on each other is much more dominant than some people would like to admit. Mainstream artists, who buy analog synthesizers as much as their indie music counterparts would actually contribute to the popularity of the instrument, and therefore drive the industry’s demand and supply. In the same context, it was argued that, even though there was an acknowledgement of an analog resurgence, a financial motive propelled an increase in reviving some of the classic instruments from the 1970s and 80s. The interview

participants also acknowledged that they did not see themselves necessarily categorized in terms of indie, mainstream or underground artist and stated that their musically creative output was more of important to them as identifier. Most subjects credited the ability to communicate and connect through the Internet with the breakdown of the discourse of mainstream versus underground.

These new insights were interesting for my documentary, as they reflected a shared sentiment for elimination of labels and terms and sought to embrace both worlds by talking about their dependence on each other and the benefits of using the mainstream to promote the analog synthesizer.

**DESIGN CHOICES, MEANINGS AND IDENTITY.** The relationship between meaning, symbolic, and design appeal is a personal one. While these terms may not be important in regard to of all aspects with the instrument, they needed exploration with my participants to clarify their personal sentiment within the narrative.

Design, as well as instrument choice, played an important part in the artist's expression of their identities. Special instrument attributes (characteristic filters as for example in the MiniMoog) and design choices of vintage gear appealed, in general, more to the study participants, as it fulfilled their urge to feel more connected to the instruments and to identify with iconic instruments of the past. Eurorack module designs, in contrast, rather serve as an identifier for the actual sound of the unit than as a signifier of the user. However, some agreed there is a certain user attraction to purchase modules that may have been designed in an unusual manner.

The meaning behind sound-generating parts of the instruments was for all participants of greater importance than the actual design looks. The Moog filter, for example, was mentioned as one piece of technology that seems to appeal to a broader number of enthusiasts and influences them to be identified with vintage gear. This particular knowledge was manifested, as the auditory satisfaction goes over the artist's visual preference. However, the need for a physical and tactile approach with the instrument tells me that while design may not matter, the actual construction of the instrument in regard to faders, sliders, and knobs very much does.

**COMMUNICATION & IDENTITY.** With communication and identity being two of the main categories to focus on with this documentary, I was hoping for a wide variety of perception to draw from to enrich existing findings. Also, as with the exception of one documentary (*I Dream of Wires*, 2012), I knew that I would be able to provide a more accurate narrative, relative to the present.

New insight in regards to communication displayed that the social group of analog synthesizer enthusiasts caters to active and passive members alike. Synth meet-ups, electronic music events, and sound labs were, in the participants' opinion, not only crucial for collaboration, exchange, and fellowship, but also to give more reclusive members an opportunity to be part of the community. Again, social media and forums were credited with helping to connect members on a local and trans local level. Most participants viewed Moogfest as a promotional tool to keep analog synth technology alive and in the public eye.

It was determined through the interview process that all participants were not able or willing to categorize or label their social group. However, the majority agreed that local groups showed more characteristics of a small-scale community and were a crucial part of a worldwide scene. Two subjects noted they perceived the analog synth user scene as a subculture within the mainstream-oriented electronic culture.

Few synthesizer enthusiasts in this documentary mentioned rituals or ritualized behavior. Arrangement of the studio (speaker and listener positions, as well as studio furniture, for example), preparatory actions (patching and wiring of the synthesizer) and scheduled studio time (twilight, in the morning, and evening, for example), were some of the mentioned examples by participants. However, rituals were not necessarily an identifier for the subjects.

### **CONCLUSION & FUTURE DIRECTIONS FOR RESEARCH**

Overall, when reflecting on the entire process of the documentary production, I would like to differentiate between the filmmaking and the evaluation of the findings.

I find that the production process helped me to understand that data collection can be as effective in a creative way as it would be in a traditional scientific manner. Through the opportunity to use my artistic tool sets, I was enabled to creatively present my research data and bring them alive through film. The challenges may have been different as I was dealing with logistic, artistic, and creative issues, but the solution finding process equally engaged me as a “creative researcher.”

The insights gained through the interview and observation process added not only to the existing pool of information, but also provided an array of new concepts and

perceptions that were not only a snapshot in time (relevant to the here and now) but also documented for future generations of synthesizer enthusiasts.

Lastly, I believe that there are opportunities to expand to different documentary and research territories. Subjects like gender (Are men dominating the scene, or do females also show a broad interest in synthesizer technology?), socioeconomics (Can anyone own an analog synthesizer? Are there any financial obstacles?), demographics (exploring race, age, and social standings, as well as geographic), and marketing research (How does identity perception and perception of the instrument influence buyer and builder decision-making?). These conclusions could potentially affect user, as well as builder and designer perceptions of the scene and the technology itself.

## APPENDICES

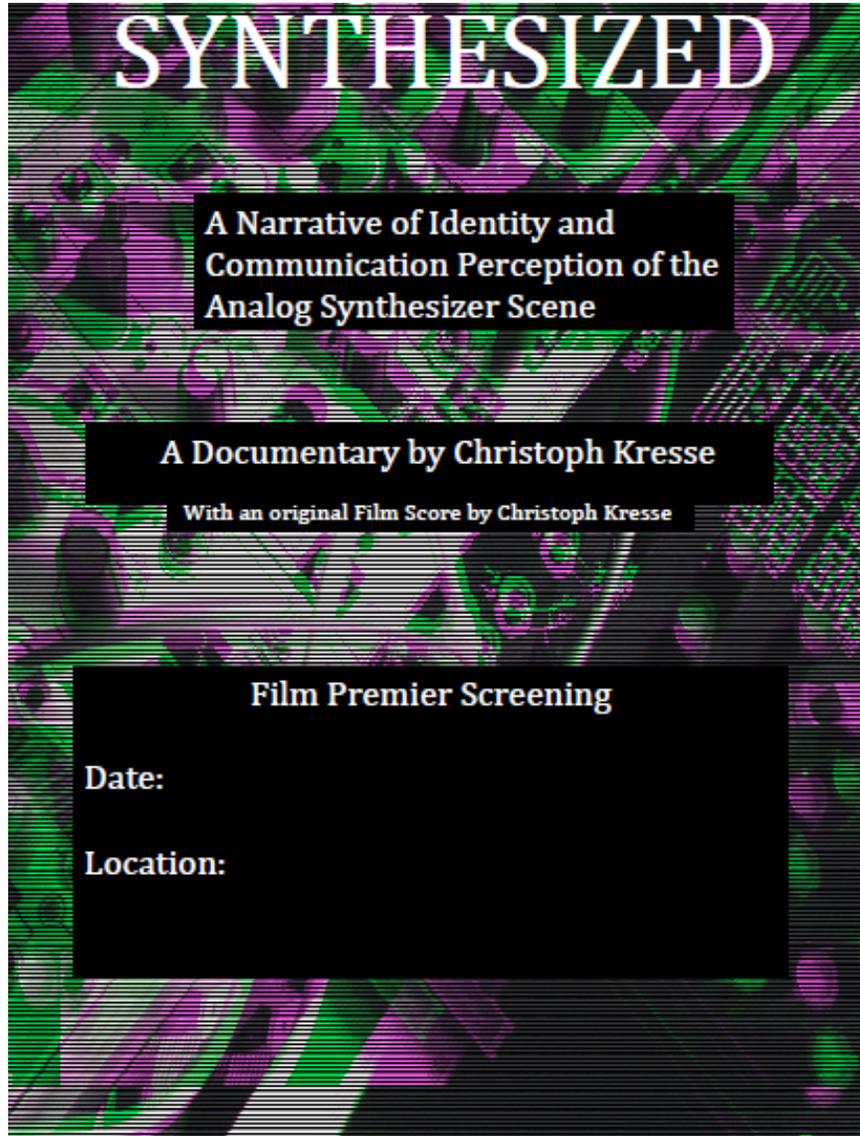
## Appendix A

### Summary of Film Sections

1. Intro: The Researcher's/Filmmaker's Background and Motivation
2. Our History: Brief History of for the Documentary relevant key figures, events and analog synthesizer instruments; Léon Theremin, Bob Moog, Don Buchla
3. Analog Revival: Artists discussing the 2<sup>nd</sup> Analog Synth Revival
4. Analog, Digital or Both?: Artists discussing their sentiment for analog music technology, as well as their relationship to the digital domain
5. Who Am I?: Discussions on identity perception, feelings of association, the relationship between Mainstream and Underground, ritualization and communication
6. Closing Reflection, End credits

Appendix B

Promotional Poster/Flyer



## Appendix C

### Original Score, Music Used in the Documentary

1. Opening Credits: *Synthesized* (Aalto Synthesizer, Reaktor drum machine module: composed, recorded, programmed and produced by Christoph Kresse)
2. The Researcher Background and Motivation: *Macintosh's Lament* (Bagpipes: trad., recorded and produced by Christoph Kresse), *Reflections* (Arturia Moog Modular: composed, recorded, programmed and produced by Christoph Kresse), *Let the Search begin* (Arturia ARP2600: composed, recorded, programmed and produced by Christoph Kresse), *Explorer Sequence* (Arturia Moog Modular: composed, recorded, programmed and produced by Christoph Kresse), *Wendy Carlos* (Arturia Moog Modular: composed, recorded, programmed and produced by Christoph Kresse), *A History Lesson (Moog Style)*(Arturia Moog Modular: composed, recorded, programmed and produced by Christoph Kresse), *Logical Progression* (Arturia Prophet V: composed, recorded, programmed and produced by Christoph Kresse), *Buchla Shuffle* (Massive Synth sequence: recorded, programmed and produced by Christoph Kresse).
3. Analog Revival: *Water* (Massive Synth sequence: composed, recorded and performed by Christoph Kresse), *The Ghost in the Lake* (Little Bits synthesizer: composed, recorded and performed by Christoph Kresse), *The Physical Sense of Music* (Arturia Moog Modular: composed, recorded, programmed and produced by Christoph Kresse), *Old meets New* (Aalto Synthesizer: composed, recorded, programmed and produced by Christoph Kresse), *Fear and Loathing in Asheville*

- (Make Noise Shared System synthesizer: composed, recorded, programmed and produced by Christoph Kresse), *Pocket Operator Jam* (Teenage Engineering Pocket Operator Modules: composed, recorded, programmed and produced by Christoph Kresse), *Eliminate the Screen* (Aalto Synthesizer, Reaktor drum machine module: composed, recorded, programmed and produced by Christoph Kresse), *Analog Vs. Digital Part 1 & 2* (Massive Synth sequence: recorded, programmed and produced by Christoph Kresse), *Time Heals all Wounds* (Teenage Engineering OP-1 synthesizer: recorded, programmed and produced by Christoph Kresse),
4. Who Am I?: *Sequential Identity* (Aalto Synthesizer: composed, recorded, programmed and produced by Christoph Kresse), *Strange Attractions* (Arturia Oberheim synthesizer: recorded, programmed and produced by Christoph Kresse), *Synthtopia* (Massive Synth sequence: recorded, programmed and produced by Christoph Kresse), *Vintage Style* (Arturia Oberheim synthesizer: recorded, programmed and produced by Christoph Kresse), *Night Swim* (Aalto Synthesizer: composed, recorded, programmed and produced by Christoph Kresse), *Sonic Ambience (2015 Mix)* (Arturia Oberheim synthesizer, Teenage Engineering OP-1 synthesizer, Tablas, Arturia MiniMoog: recorded, programmed, performed and produced by Christoph Kresse), *Driving Through Tunnels* (Make Noise Shared System synthesizer: composed, recorded, programmed and produced by Christoph Kresse), *The River that does not make*

*any Sound* (MicroKorg Synthesizer, NI Maschine: recorded, programmed and produced by Christoph Kresse)

5. Closing Credits: *Synthesized Part 2* (Arturia Oberheim synthesizer: recorded, programmed and produced by Christoph Kresse)

## Appendix D

### Participant Questionnaire Sample

1. How do you perceive the new revival of the analog synthesizer?
2. Why do you think there is such a fascination with an older technology like the analog synthesizer?
3. Playing an old vinyl record is not just listening to music it has become like a ritual; from studying the cover art and liner notes to placing the record on the player platter and dropping the needle and creating the right ambience. Do you think there are similar rituals when it comes to playing with a modular system?
4. Would you consider yourself an analog synthesizer purist or do you allow crossover into the digital domain when you produce music in perform?
5. What would you say are the identity characteristics of the synthesizer subculture?
6. What is your opinion about hyper mediated and simulated analog synthesizers?
7. How would you describe your role within your subculture?
8. Is there a hierarchy within the synthesizer subculture and if so, how is it organized and communicated?
9. How does your scene communicate with each other and with outsiders?
10. What role do synths meet ups play in your scene?
11. Do you think synths meet ups are the best way to communicate within your community and with outsiders? If so, how?
12. If music and sound are a way of communication without words, in what role do you see yourself? As the sender, using the modular as a tool to communicate? Or is the modular the actual sender and you are just manipulating the message?
13. What is your strongest argument towards using a modular over a hybrid or software synthesizer?
14. Using digital, software based synthesizers enable the user to work within a more predictable environment (using Presets etc.). A modular produces a more unpredictable and ever changing environment. How does this affect the communication process between the sender and the audience?
15. Is there a stereotype or cliché for a synthesizer enthusiast? If so, why? If not, why not?
16. Some artists and technology geeks are always labeled as introverted and generally not open to communicate much with outsiders of their scene; would it be a fair assessment to say that they are using a modular to express themselves and to communicate within their scene and with outsiders?
17. Vocalists communicate with their audience through lyrics and emotions expressed in a song. How do you think is communication by means of a modular synthesizer equal or different to that? Can you communicate emotions as clearly as through words?

Appendix E

Documentary Film Link

<https://drive.google.com/file/d/0B06dy53hDg8eM25rNzFacUdZSU0/view?usp=sharing>

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