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An ethnographic study of the online synthwave community, a community of practice – by a composer and performer

Dr Jessica Blaise Ward
Leeds Beckett University (Schools of Arts)
June 2023

The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

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This thesis is dedicated to my Grandad Phillip Ward, and Father-in-law Robert 'Bob' Geoffrey Foster.

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Abstract

Online music communities are a vital method of genre formation in the 21st century. In a Web 2.0 (or 3.0) virtual space which transcends geographical boundaries, a multitude of artists, audiences, musicians, producers and performers come together to negotiate subcultural capital in a collective capacity. With new subcultural styles, rituals, practices, and cultural disseminations, how can we assess the activities of an online community and their role in the formation of a genre?

This 5-year and 6-month (2017-2023) ethnographic study examined the ecosystem of the online synthwave community, a 21st century style of music which both privileges and reimagines 1980s musical and cultural aesthetics. It includes autoethnographic work, with music composition, production and performance being key tenets of the author's positionality. Paired with an emic viewpoint, this thesis makes visible tacit knowledge of the synthwave creative process, as well as providing rich and experiential subcultural detail about the online community.

The research concluded that the synthwave community is an active community of practice with a defined set of musical, stylistic, technological and subcultural rules. By examining the tensions observable within the outputs, interactions, and discourses of this community of practice, as well as through the author's participation as a creator, the research addresses how online music communities (including creators and audiences) construct and negotiate parameters of an emergent musical style.

The research is (to date) the first ethnographic account of the online synthwave community and provides a first-hand telling of its ecosystem as a community of practice. Ultimately, this research traces the genre formation of an 'internet-based creative practice' (Born, 2018, p.606) known as synthwave. Key implications of the research findings implore the potential for making connections between communities of practice and genre formation in other areas of popular music, particularly of genres which exist primarily (or were formed initially) online.

Keywords: Online Music Community, Genre Formation, Subcultural Capital, Music Technology, Creative Process, Identity

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Appending Audio to the Thesis (artefacts of my ethnography)

All listed Composition Works, Audio Experiments (of Chapter 5) and Music Production Glossary Audio Excerpts are accessible from my personal website:

<https://jessicablaiseward.wixsite.com/blaiserunner/phd-research-information-1>

which includes Spotify links. Should you have difficulties with access, please contact me directly via any of the following:

@blaisejess [Twitter], @blaisejess [Instagram], email: jessicablaise.ward@gmail.com, LinkedIn Jessica Blaise Ward.

List of Composition Works

‘Strangers in the Dark’ (2019) by Jessica Blaise Ward feat. Tobias Joel Ward (available on Spotify

<<https://open.spotify.com/track/4zvp6VOs2IVE0wOKNWb2A4?si=0cf6262331934356>>).

‘Drift’ (2019) by Jessica Blaise Ward

‘Killing Dreams’ (2019) by Jessica Blaise Ward (available on Spotify

<<https://open.spotify.com/track/28PiZqiLzqtt7OlaF1dL1N?si=d3fdb7159443439d>>).

‘Bones’ (2020) by Jessica Blaise Ward feat. Joe Michael Leonard

‘Futures Promise’ (2021) by Jessica Blaise Ward (available on Spotify

<<https://open.spotify.com/track/6PK8IWf7PtdqVH24ljagFD?si=3581e6fb95234d05>>).

Style Parameter Audio Experiments

SP1a ‘*Ostinati* or Sequenced Synth Bass (8ths or 16ths)’

SP1b ‘Drone Bass’

SP2a ‘Plucky Arp’

SP2b ‘Brassy Arp’

SP3a ‘Detuned Saw Lead’

SP3b ‘Bell Lead’

SP4a ‘Lush Moving Pad’

SP4b ‘Brass Pad’

SP4c ‘Brass Synth Stabs’

SP5 ‘Four-to-the-floor Programmed Drums’

Remix

‘The Drone Racing League’ (2019) Gunship Remix by Jessica Blaise Ward and Jan Hajszen

Collaborative Works

'Replicant' (2019) by Superterranea (topline written and performed by Jessica Blaise Ward) (available on Spotify

<<https://open.spotify.com/track/6QEelfDvtfAdTu9rwKeHwo?si=373613dcee484e54>>).

'Worlds Without' (2019) by Superterranea (topline written and performed by Jessica Blaise Ward) (available on Spotify

<<https://open.spotify.com/track/2fKNceF3p8SI12OdEuFxmD?si=a08349fec9c042a4>>).

'Fluorescent Light' (2022) by The Ocean Beneath (topline written and performed by Jessica Blaise Ward) (available on Spotify

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Notes and Abbreviations

Examples, tables and figures in each chapter are numbered in the following format: chapter number, followed by example/table/figure number. For example, Figure 1.1 refers to the first figure in Chapter 1. Similarly, Table 2.1 refers to the first table in Chapter 2. All illustrations and photographs were created/taken by me unless otherwise indicated. With reference to music analysis, notes are indicated by lowercase letters and numbers (according to their pitch e.g. a4), chords and chord sequences are indicated by roman numerals or chord names (according to degrees of the scale e.g. i-VI-VII, or by name e.g. E major), and keys are indicated using upper case letters (e.g. D major, D minor). Interviewees are cited by their full names, artist names, self-chosen pseudonyms or handle names, or anonymously (e.g. Anon 1). Some interviewees are referred to by their initials, such as Rick Shithouse (RS). Please see my Music Production Glossary for sonic examples of music production terms (where applicable).

Other abbreviations include:

OMC – Online Music Communities

DAW – Digital Audio Workstation

VCO – Voltage Controlled Oscillator

VCA – Voltage Controlled Amplifier

VCF – Voltage Controlled Filter

LFO – Low Frequency Oscillator

PWM – Pulse Width Modulation

ADSR – Attack Decay Sustain Release

DCO – Digitally Controlled Oscillator

HPF – High Pass Filter

LPF – Low Pass Filter

DI – Direct Inject

DIY – Do It Yourself

EDM – Electronic Dance Music

EBM – Electronic Body Music

ms – milliseconds

mb – megabytes

Synth – Synthesizer

Omni – Omnidirectional microphone

Ostinato or *Ostinati* - a continually repeated musical phrase or rhythm

Preface



Fig. P.1 and P.2 (Both) My father, Wayne Ward, playing his Roland D-50 in the 1980s
Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.



Fig. P.3 My father, Wayne Ward, in his apartment in July 2020 with his collection of synths
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My interest in synth-based popular music stems from an immersion in all things musical from an early age. Coming from a family of music performers and songwriters, music has always been central in my life. My family's passion for music inspired me to pursue the subject through a formal education, which ultimately led to my career as a popular music researcher and senior lecturer of songwriting.

My Dad, a songwriter and multi-instrumentalist, was a keyboard and synth player in numerous bands throughout the 1980s. Once he had children, he would write songs in his 'studio', a term he used to describe the cellar in our house on Oxford Road. I loved to spend time with my Dad in the studio, and hearing the sounds of his synthesizers coming from that

room were part of my everyday life. As an adult, I now understand that his cellar was in fact a fully functioning home studio, complete with a 24-track mixing desk, primitive version of Cubase, numerous types of microphone, an ample collection of guitars and impressive rack of synths. In 2023, it has been 24 years since we lived at Oxford Road, and my Dad still maintains a home studio in his apartment.

My Mum, Aunt Lisa, Nan and Grandad were performing musicians throughout the 1980s – their favourite repertoire being pop hits from this decade. Having spent my childhood watching them perform from one venue to the next, I eventually became a performer myself. I always had an affinity for singing songs of the 1980s and was particularly inspired by the style of my Mum's singing voice.



Fig P.4 Pictured from left to right: My grandad, nan, aunt Lisa, mum (1980s) Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

I expanded my love of music performance and composition as an undergraduate, studying a BA in Music Production. Having explored the basics of Logic and Cubase during Music Technology A Level with my teacher Mr David Rodgers, I was keen to learn more and produce my own compositions. Ever since that time, I have formed my own version of Dad's cellar – a home studio which is (coincidentally) in the basement of mine and my partner Josh' house.

The research presented in this thesis is the product of a lifetime spent embracing the creation, production and performance of music – three things which remain my greatest passions.

Chapter 1: Introduction & Context

1.1 Position Statement

'Fly for your life'¹, track nine of Gunship's eponymous album, was the beginning of my journey with synthwave. Late one night in 2017 my partner Josh was playing the album in our apartment and I found myself listening closely. I was captured by the bright synths in the introduction, the thunderous reverb on the snare, and the vocal harmonies in the chorus. I asked Josh immediately to 'play that one again' and 'who is this? What are we listening to? What kind of music is this?' It was a much longer conversation at the time, but the short answer was synthwave.

My initial search for synthwave took place via the internet. I did not realise at the time how that search would shape my research journey for many years to come. In 2017, I was studying for an MA in Popular Music and Culture, being particularly interested in subcultural theory and genre theory. I was grasping with the what, the why, the how, and the who of various musical groupings such as subgenres, subcultures, scenes and communities. As a singer, keys player and composer I had always been interested in music genres and their make-up, but it wasn't until my MA that I began to investigate music genres and the idea of genre formation.

Having spent the next day listening to Gunship's album back to back, I had so many questions – what is synthwave? Who is synthwave? Where and how do I find synthwave? I began my search on Reddit, a social media platform which facilitates places for discussions of topics, known as 'subreddits'. Here I found a host of synthwave subreddits, all of which varied in content. Some recommended synthwave Spotify playlists or artists, with Reddit users also discussing artwork styles and favourite synthwave songs. Some subreddits identified as 'subgenres' of synthwave. Others provided advice on how to write or produce synthwave, including recommendations on where to post demos for feedback. As a composer with a background in music production myself, I was particularly interested in this subreddit. The only thing I wanted to do more than listen to Gunship's album again was to experiment with writing my own synthwave song!

Before doing so, I wanted to know more. I began regularly reading content from synthwave subreddits and expanding my listening palette from Gunship to include Kavinsky, NINA, Carpenter Brut, Electric Youth, Trevor Something and others. Of music

¹ 'Fly for your life' (2015) is available from: <https://www.youtube.com/watch?v=Jv1ZN8c4_Gs> (GUNSHIPMUSIC, 2015).

recommendations by Reddit users, a frequent choice, 'Nightcall' (2011) by artist Kavinsky,² was in fact a song I recognised (although I had never heard it described as synthwave previously). The song struck me as having elements of soundtrack music (the payphone sound effect and wolf howl), with a four-to-the-floor drum pattern like disco or 21st century EDM. Expectedly, the song had a prominence of synth parts, with timbres which reminded me of pop music from the 1980s. In fact, the 1980s "feel" of synthwave songs was oddly nostalgic. I reflected that for me, this was likely the result of having been raised by a real 80s girl, my Mum. She was born in 1971, and never really updated her listening habits through the 1990s and 2000s when she was raising her five children. Equally, my Dad has always been a synth-fanatic, and the sounds of his DX7, Jupiter 8 and Juno 6 were familiar sounds when I was growing up.

My thoughts about 1980s-style synths in synthwave songs were not unfounded as, in fact, most Reddit users characterised synthwave as an '80s throwback' or '80s nostalgia' style of music. Intrigued by this privileging of 1980s' aesthetics, I pondered what sort of creative processes and practices were being undertaken to create synthwave-styled music. Lots of popular music from the 1980s was created with hardware synthesizers or samplers, such as the synthpop music by Human League or Depeche Mode. From synthwave subreddits, it became apparent that most creators of synthwave were seldom using those (due to cost, logistics and availability) and were instead exploiting affordances of digital music technology (such as plug-in emulators). With this, I was motivated to explore which music technology practices were being used to create this unique style of music. How were community members engaging with music technology (paired with popular culture aesthetics from the 1980s) to form this genre of music, synthwave?

At the beginning of 2018, I expanded my following of synthwave subreddits to follow synthwave groups on Facebook, Twitter and other web domains. I noticed synthwave artists using a hashtag on Twitter, '#synthfam', communicating a kind of community identity. I saw similar sentiments on Reddit and other social media, where internet users referred to synthwave not only in reference to music and artists, but as a music 'scene' or community. I soon began experimenting with compositions in the synthwave style and was reading synthwave subreddit threads daily. I wondered; did this make me a member of the community?

As time went by, I noticed two common threads of discourse were occurring. The first, a simple question presented with some sort of musical artefact: '*Is this synthwave?*', and the second, any number of questions surrounding the use of Digital Audio Workstation

² 'Nightcall' (2011) is available from: <https://www.youtube.com/watch?v=MV_3Dpw-BRY> (RecordMakers, 2011).

(DAW)-technology or plug-ins in creating synthwave (*'how can I make a synthwave bassline on FL Studio?' 'What are synthwave chords?' 'Which plugin should I use for my lead synth?'*). The responses to *'Is this synthwave?'* were nearly always conflicting, with anything from detailed reasoning (about how to engage with music technology or 1980s' phenomena, plus vague descriptions of nostalgia) to no justifications at all. It was clear to me at this point that a form of subcultural capital was being recognised amongst these websites and groups, or rather, that capital was being formulated and recognised by *members of the online community*.

It had been nearly a year since I had started reading about synthwave online, and I was awestruck at how these internet users (or community members) were engaging independently with, as well as managing or negotiating, the social and subcultural capital of synthwave. Not only were they continually establishing boundaries of what could only be described as a musical genre, but they had a clear group identity as an online music community. What was particularly fascinating was their *sense of community*, which seemed to go well beyond their privileging of the 1980s decade and synthesizers.

As my MA year came to a close, I had only spoken to a handful of people offline who knew about synthwave (such as my friend Liam), but overall this was limited, and their experiences reflected online engagements too. I had spent most of the year musing my ideas and observations about synthwave to my partner Josh, as well as one of my MA tutors Steve Parker. When I expressed to Steve my disappointment that my MA was nearly over (delving also into a short Ted Talk on synthwave), he questioned whether I had ever considered doing a PhD.

My initial findings on synthwave from my MA year concluded this: an online community of internet users were self-managing and curating their own musical space, forming a genre with a clear name and identity traits shown through visual aesthetics and distinct stylistic parameters. This was the tip of the iceberg. How did this online community form? How did their genre boundaries form? What creative processes are required to create synthwave? Who are these internet users or community 'members'? Which members create synthwave music, and how else do people participate in the community? What motivations do members have to engage with synthwave and in turn the online community? What is, who are, and how can we understand the online synthwave community?

1.2 Research Context & Thesis Aims

Section 1.1 illustrated the beginning of my journey with the online synthwave community, presenting the seeds of my research for this thesis. It established key matters of the thesis, of online music communities, communities of practice (Wenger, 1998), subcultural theory

and genre formation. I now expand upon and explore these areas, to provide the context within which my thesis is situated. This includes providing definitions of (as well as historical overviews of) online music communities, communities of practice, and subcultural and genre theory. The issue under investigation is how and why online music communities in the 21st century construct and negotiate parameters of music style and subculture. One online music community, synthwave, is the sole case study for this thesis, and my problem statement extends to understanding how this online community maintains itself, in the definition, promotion, and dissemination of its existence. My study addresses how and why emergent music cultures develop on the internet in the 21st century and contributes to an existing body of work on genre formation in the popular music tradition.

My research responds to a knowledge gap in studies of synthwave, which are limited mainly to undergraduate and MA theses, as well as forums or blogs. My research also responds to a theoretical gap in online music communities of the 21st century, particularly of the potential for these to be considered a community of practice. By extension, autoethnography is limited in studies concerning genre formation and 21st century online music communities (or 'internet-based creative practice[s]' [Born, 2018, p.606]), particularly with reference to creator work such as remixing, composing or performing.

My initial experiences with synthwave (outlined in Section 1.1) demonstrate how advances in both music technology and communication technology of the 21st century have converged with the forming of a music genre. In this thesis I investigate how synthwave has been realised and maintained by an online community, conducting a 5-year and 6-month ethnographic study of its ecosystem. In doing so I explore areas of subcultural theory and genre theory such as subcultural capital (defined in Chapter 2: Literature Review), paired with ideas of music community and specifically music communities on the internet in the 21st century.

This research had two overarching aims. The first was to investigate the musical and music technology parameters ('style parameters') of the synthwave style, including an assessment of how they are realised, recognised and valued by the online community. This was achieved through two objectives: firstly, through my own creative practice (autoethnography) and participant observation of the online synthwave community (virtual ethnography) where I both analysed and created audio recordings of the synthwave style to investigate its key style parameters. In doing so I examined the community's engagements with music technology specifically. A total of 9 musical works (including compositions, remixes and collaborations) and 10 audio experiments (SP1a-5) (autoethnography) accompany the thesis as appendices and are considered artefacts of my virtual ethnography. My second objective was to conduct email interviews (n=70) and one online survey (n=94), to inform of style parameters and their nuances via community definitions. In

doing so I reveal style parameters' contextual and historical significance with reference to 1980s music technology.

My second aim was to examine the ecosystem of the online synthwave community and its genre formation. This was achieved through three objectives. Firstly, through virtual ethnographic fieldwork, email interviews and online survey data, I investigated the online synthwave community's genre formation and subcultural capital, examining facets of their community identity. This included community activities, spaces, values and practices but focused also on their connection to 1980s' popular culture, and their engagements with music technology (specifically virtual synthesizers) to formulate a musical and community identity. My second objective entailed use of virtual ethnographic fieldwork, email interviews and online survey data to critically assess tensions and negotiations observable within the outputs, interactions and discourses of the online synthwave community with relevance to their genre formation and community identity (e.g. knowledge legitimisation, community demographics, issues of style authenticity). In doing so I considered the online synthwave community as a community of practice. Finally, through two concert ethnographies, I observed synthwave practices in a live setting.

Whilst gender is not reflected specifically in my aims (though relates to aim two's second objective of tensions and negotiations), it became an important component of my findings as the thesis progressed. However, with my theoretical foci on music communities and genre formation, gender is framed within this discourse only. A focused and dedicated study of gender and synthwave is beyond the scope of this research (although I intend to pursue it in future publications).

The methodological approach of this research accounts for my 5-year and 6-month ethnographic study of the online synthwave community, beginning in September 2017. My position as a participant observer and overt full member (Bryman, 2012, p.441) is notable from September 2018, whereas in the first year (described above as my MA year in 2017) I acted only as an internet user reading content about the community. It was at this time that my interest in researching synthwave formed, and my position might be described by Christine Hine as that of a 'lurker' (Hine, 2000). In 2017 I did not interact with anyone or post anything within community spaces such as Reddit, Twitter etc. Whilst I did experiment with my own synthwave compositions during 2017, it was not until after I had disclosed to the community my position as a researcher (in September 2018) that I actively began interacting with members. Any thoughts or theories I had about the community during my MA in 2017 were mine alone (and eventually formed the basis of my PhD application to Leeds Beckett University, where I was later granted ethical approval for my study).

This thesis examines the history and genre-formation of the synthwave community,³ inclusive of synthwave style parameters and the community's manifestation and ecosystem through 21st century digital communications (the internet). This thesis would interest scholars of popular music studies and music technology or music production, as well as music practitioners, practice researchers and community music researchers. My original contribution to knowledge (detailed in full in Chapter 10: Conclusion) is that this research is the first ethnographic (and autoethnographic) account of the online synthwave community within academia to date (June 2023), including that the research was a long term, sustained study, by a composer and performer. This research has made significant contributions to the study of music communities in the 21st century on a macro scale (the synthwave community's ecosystem), with a longer and sustained timeframe (5-years and 6-months), and within the context of Web 2.0 and Web 3.0. It has demonstrated how an emic researcher of an online music community ought to conduct a study of this scale. My research has contributed to research areas of popular music, musicology, ethnomusicology, practice research (specifically music composition and music production) and (within the scope of a music genre) feminist scholarship. My axiological position was key to this research, and ultimately shaped its findings. The research was conducted through, and can be viewed through the lens of, a female composer, performer and musician.

As an introduction to the key matters of this thesis, I now provide key definitions and a short historical overview of each: online music community, community of practice, and subcultural and genre theory.

1.3 Community

Community was formed as a sociological construct by German theorist Frederick Tonnies ('Gemeinschaft und Gesellschaft' [1887], translating to: 'Community and Association'), and explored later by sociologists Emile Durkheim (*The Division of Labour in Society* [1893]) and Max Weber (*The Theory of Social and Economic Organization* [1947]) (Waldron, 2015 p.1). The germinal concept of community is rooted in Tonnies' ideas of social organisation, and Durkheim's two societal organisms: mechanical (simple) and organic (complex). The former refers to simple societies such as traditional and autonomous villages, while the latter to complex societies where 'no one household, neighbourhood, town, or company can produce everything its members need to survive' (Hornsby, 2013, p.100). In the first half of the 20th century, terms such as 'society', 'culture' or 'peoples' appeared with far greater frequency

³ The online synthwave community is often shortened to 'the community' throughout this thesis. On the few occasions in this chapter where other online communities are described, a distinction is made clear.

than 'community'. The shift to community reflected a greater consideration of wider social and cultural contexts, as opposed to communities being 'unitary isolates' (Amit, 2002, pp.2-3). Community at its core is anthropological and sociologist Weber (1947) proposed two 'ideal types' of institutional structures – the economic and the political. He opposed some of philosopher Marx's views that the ruling class were the only ones with economic power and asserted three further types of legitimate authority in society – charismatic, rational and traditional (Weber, 1947).

Whilst a universal definition of community has been historically problematised (Crow, 2020, p.1) useful indicators of community involve 'a group of people with something in common' which 'may be associated with particular places' (Crow, 2020, pp.1-2). Relevant to community is the idea of social solidarity, 'a shared sense of belonging and commitment' where groups of people 'are bound together in some way (despite their myriad differences of social class, age, gender, disability and other lines of social cleavage)' (Crow, 2020, p.3). Robert and Helen Lynd's (1929) study of 'religion in the life of small-town middle America' pioneered community studies (Crow, 2020, p.2), alongside the work of the Chicago School (Redfield, 1930; Hughes, 1943, cited by Crow, 2020, p.11) and the Institute of Community Studies (ICS) (Crow, 2020, p.14). Criticisms of community studies from this time observe that they were 'insufficiently theoretically informed and overly concerned with small-scale, local issues in a way that left the impact of larger social and economic forces unaddressed' (Crow, 2020, p.14). They were also criticised for holding a romanticised viewpoint of communities, where post-ICS research recognised that 'communities were about competition and conflict as well as co-operation' (Crow, 2020, p.17).

Studies of community in the 1950s and 1960s were considered 'traditional' in that they 'typically devoted more attention to the description of everyday life than to its explanation in terms of abstract theoretical ideas' (Crow, 2002, p.2). With some exceptions, studies of this period were 'predominantly descriptive in character' and generalised or impressionistic (Crow, 2002, p.2). This period of research was followed by a 'dead period' for community studies, the 1970s (Crow, 2002, p.3). A lack of published research at this time was due to an emphasis on conflict within communities, and the concept of community itself having been challenged for 'glossing over' inequalities of social class, gender, race and ethnicity (Crow, 2020, p.18). This period was in turn criticised for its 'partial coverage', particularly of male researchers overlooking or misrepresenting marginalised voices, such as those of women (Frankenberg, 1976, in Crow, 2020, p.15). By this time, community studies considered the notion of social divisions within communities, as well as the idea of 'outsiders' or 'strangers' (Frankenberg, 1976, in Crow, 2020, p.11).

The 1980s marked a new period of community studies, in which studies 'informed by a diverse array of theoretical perspectives and a renewed concern to engage creatively with

empirical data made their mark' (Crow, 2002, p.2). Studies moved past 'backward-looking nostalgic celebrations of disappearing ways of life' and recognised the significance of geographical mobility (Crow, 2020, pp.18-19). This period is considered a milestone ahead of what became the 'old tradition' of community studies, and recognised the advent of globalisation (Crow, 2002, p.4). It also gave rise to new concepts such as Anderson's 'imagined community' (1991), alongside the development of Web 1.0 (coined by Berners-Lee [Singh et al, 2011, p.147]) which fore-grounded virtual communities. For a more detailed account of the history of 'community' and (pre-internet) community studies, I recommend the work of Graham Crow (2002, 2020) and Vered Amit (2002).

1.3.1 Online Music Communities – Web 1.0, 2.0, 3.0, History of OMC, Practices of OMC

Janice Waldron – a music educator who studies virtual communities and online learning – contended how 'in the 1990s, widespread Internet use disrupted these earlier ideas of what defines and bounds "community"' (Waldron, 2015, p.1). Such online communities at this time were notably pre-social media and generally a 'forum and or/bulletin board focused on or based around a specific interest' (Waldron, 2015, p.9). This period (the 1990s up until the advent of social media in 2004) is considered Web 1.0, 'a system of interlinked, hypertext documents accessed via the Internet' (Singh et al, 2011, p. 147). Web 1.0 is characterised as 'read-only', with few content creators and minimal user interaction (Singh et al, 2011, p. 147). The advent of social media such as Facebook (established in 2004), YouTube (established in 2005), Reddit (established in 2005) and Twitter (established in 2006) changed the nature of online communities in the 21st century and is characterised as the beginning of Web 2.0.

Web 2.0 focuses on 'users and their active participation' and is a period of web usage coined initially by Dale Dougherty (O'Reilly Media) and Craig Cline (Media Live) (Singh et al, 2011, p.148). A Web 2.0 site 'gives its users the free choice to interact or collaborate with each other in a social media dialogue as creators (prosumers) of user-generated content' (Singh et al, 2011, p.148). This may take place 'in a virtual community, in contrast to websites where users (consumer[s]) are limited to the passive viewing of content that was created for them [as with Web 1.0]' (Singh et al, 2011, p.148). Web 2.0 is slightly more centralised than Web 3.0, with Web 2.0 about bidirectional communications through 'social networking, blogging, wikis, tagging, user generated content and video' (Hiremath & Kenchakkanavar, 2016, p.709). A decade after the rise of social media, Web 3.0 is considered a more personalised and multi-user virtual environment (which includes AI). It is overall more decentralised than Web 2.0 with a more sophisticated searching, connecting, creating and storing of knowledge and data (Hiremath & Kenchakkanavar, 2016, p.708). Key

components of Web 2.0 and 3.0 align with facets of online music communities, such as Web 2.0's participatory nature and 3.0's 'semantic web' (more sophisticated search functions and data integration) and ubiquity (content is accessible via multiple applications and devices e.g. smartphones) (Singh et al, 2011, p.151). It ought to be noted that issues of accessibility are still relevant to Web 3.0 (and previous web waves Web 1.0 and Web 2.0 alike). As Christine Hine (a sociologist of science and technology) explained, 'The Internet is a mass phenomenon, but it is not universally available, and there are still some underlying inequalities that structure access' (Hine, 2020, p.6).

Online communities' scholar Preece (et al, 2003) offered a definition of online communities as 'a group of people who interact in a virtual environment' with a purpose, which includes rules and norms (Preece et al, 2003, p.1023). Such purposes may take the form of celebrating a music genre, suggested by Waldron of online music communities. She asserted also that such communities can play a significant role in peoples' lives (Waldron, p.1, in Bartleet & Higgins, 2015). The terming of online communities, like community, has been problematised for the array of factors which impede a universal definition. Preece et al (2003) suggested factors of online communities as community size (fifty people vs fifty thousand), the age of both the community and its members, the culture of members of the community, and the level of interaction with offline (in "real life") activities (Preece et al, 2003, p.1023). The activities undertaken by online music communities also vary considerably, including on which platforms they choose to operationalise participatory activities (Preece et al, 2003, p.1024).

Participatory activities in online music communities may take the form of creating music remixes, reported by Jarvenpaa & Lang of a Nine Inch Nails (NIN) remix community. Through one specific web domain (initialised and overseen by NIN), fans can remix NIN songs with band-provided raw wave files. Fans on the site can listen to others' remixes, including rating and commenting on these, and create various playlists which are then shared on the site (Jarvenpaa & Lang, 2011, p.446). In doing so, the site facilitates 'a firm-sponsored community that fosters collaboration between a commercially successful music band and its fan community' (Jarvenpaa & Lang, 2011, p.442). Such a study is a useful representation of Web 2.0, given its user-generated content and bidirectional communications (between fans and the band). Jarvenpaa & Lang explain some of the limits of the community, in that users are not allowed to take their remixes outside of the community, nor are they allowed to create multi-generation remixes (i.e. remixes of remixes) (Jarvenpaa & Lang, 2011, p.449). The site is largely centralised and ultimately serves to foster controlled creativity and extend the promotion of the band's album material.

Another example of participatory activity in an online community includes Lysloff's 2003 study of chiptune. Chiptune is created by 'mod composers', 'using, emulating or

sampling [...] sound chips' that have a distinctive "bleep" quality from transistor-tones' (Lysloff, 2003, p.242). To communicate or share their music, members or 'mod composers' of chiptune used: 'e-mail, Usenet discussion groups, and bulletin boards' and 'real-time chat systems' (Lysloff, 2003, p.242). Considering the lack of Web 2.0 social media (e.g. Facebook, Twitter, or earlier sites such as Myspace), Lysloff's study is more demonstrative of Web 1.0. However, the usage of early online chatrooms, plus the timeline in which this study took place (late 1990s and early 2000s), indicates the end of Web 1.0 and a move towards Web 2.0. Lysloff describes the demographic of the community as 'predominantly young men, varying in age from late teens to early 30s. [...] generally middle-class white Europeans and Americans, college educated and possessing some basic computing knowledge' (Lysloff, 2003, p.240). Such members considered themselves as members of an online 'scene' (Lysloff, 2003, p.243). This synchronises with research which acknowledges how online communities engender a structured inequality of access (Hine, 2020, p.6), additionally signposting issues of gender representation in early online music communities.

The online music community of vaporwave has been termed an 'internet-based creative practice' (Born, 2018, p.606). Vaporwave is characterised as 'a fully net-immersive phenomenon: the internet has itself become a source of content [...]. Vaporwave is partly "about" cloud tags, hyperlinks and networks' (Born, 2018, p.638). This parody and mimicry of hyper-capitalism and internet technology is at the core of vaporwave, a style which formed in the early 2010s via social media sites Tumblr and Reddit. The former is considered central to the genre's development (Glitsos, 2018, p.103, Born, 2018, p.638), and sociologists Whelan & Nowak maintained the significance of 'online platforms' which afforded vaporwave's 'negotiation and finessing of [...] conventions and [genre] rules' (Whelan & Nowak, 2018, p.460). However, Whelan & Nowak questioned that vaporwave is an identifiable unitary online music community, recognizing the 'messy dynamics' of a genre, particularly those in a digital context (Whelan & Nowak, 2018, p.455). They approach genre as a 'mediated, interactional and discursive process, rather than situating the discourse, community or scene as the locus of analytical and conceptual attention' (Whelan & Nowak, 2018, p.455). Whelan & Nowak challenge the ontological basis of 'community' with relation to vaporwave (Whelan & Nowak, 2018, p.455). In doing so, they de-emphasise groupness of vaporwave and assert its main purpose as a vehicle of critiquing capitalism (Whelan & Nowak, 2018, p.460). Such a study has implications to the present research, which views synthwave as a cohesive and identifiable online music community. Terms such as style, scene, genre and subculture are further examined for their relevance to online music communities shortly.

Glitsos (2018) described the year 2013 as the popularisation of vaporwave, with creators sharing compositions on music-facilitating websites such as Bandcamp and

SoundCloud. *Floral Shoppe* (2011) is considered a seminal album of vaporwave, with musical characteristics which take their lead from cultural themes of capitalism, consumerism and internet technology. The music features synthesisers or 'representations of synthesised texture[s]' with a 'sluggish' tempo average of 70-90bpm and 'sedative tones of the shopping centre soundtrack' (Glitsos, 2018, pp.102-103). Music samples are 'drowned' in reverb, which give vaporwave its 'melting' quality (Glitsos, 2018, p.100). Glitsos contended how vaporwave's musical influences 'emerged from a host of heavily intertextual electronic musics available since the turn of the millennium' (Glitsos, 2018, p.102). Aspects of music production are too reflective of vaporwave's sedative, parodic-consumerist qualities, with: 'empty tinny beats and hollowed out drum tracks' that strip the EQ mid-section of tones in denial of a "thick" or "good-bodied" mix' (Glitsos, 2018, p.109).

Like synthwave, vaporwave is an internet-born 'digital music genre' (Born, 2018) that formed exclusively online, with its own distinct identity traits shown through visual aesthetics, musical style parameters and cultural meanings (Glitsos, 2018, p.102). Similar to Born (2018), Glitsos refers to vaporwave as an 'internet genre', due to it having solely emerged on and through digital platforms (Glitsos, 2018, p.103). Vaporwave's main demographic is suggested as 'techno[logy] savvy, digital natives' who likely include Millennials (Schembri & Tichbon, 2017, p.198).

With relevance to developments of the web, anthropologist and musicologist Georgina Born suggested that vaporwave is demonstrative of Web 2.0 (Born, 2018, p.634). Perhaps in its inception (the early 2010s) this was a valid claim, though I would argue that vaporwave carries markers of the semantic web (Web 3.0) in the late 2010s and early 2020s. The community has grown outwards from its primary website Tumblr since the early 2010s, and vaporwave now exists across YouTube, Twitter, Facebook (to name only a few) and other social media sites. Vaporwave content is also created and accessible via smart devices, with vaporwave artists now engaging in live streams and other Web 3.0 phenomena. Vaporwave's online community is highly decentralised in terms of its boundary management, unlike the Nine Inch Nails' remix site (Jarvenpaa & Lang, 2011) which is ultimately controlled and curated by the band.

Waldron explains that online music communities' participatory activities enact a type of social capital in the form of shared knowledge and information, a factor which is key to an online community's growth (Waldron, p.2 in Bartleet & Higgins, 2015). Social capital is vital in defining a community with regards to its subcultural capital (expanded on shortly). Relevant of types of capital, anthropological discussions of community in the early 21st century 'tend to emphasize difference as a guiding idea in [...] communal frames' (Higgins, 2012, p.135). In this sense, communities are defined not by what they are, but what they are not. Whilst (professor of community music scholarship) Higgins' work is not specifically in

reference to online music communities, he makes an essential point about the definition (or boundaries) of communities as recognised by their differences. Such an idea reflects Bourdieu's 'distinction', which asserts that social divisions are defined by differences: 'through the differentiated and differentiating conditionings associated with the different conditions of existence, through the exclusions and inclusions [...] through all the hierarchies and classifications inscribed in objects (especially cultural products). [...] Social divisions become principles of division, organizing the image of the social world' (Bourdieu, 1984, pp. 470-471).

For example, a cultural similarity between synthwave and vaporwave is their affinity for nostalgia; however, differentiated by decade. Where vaporwave associates their nostalgia mostly with 1990s (and only sometimes inclusive of the 1980s) (Glitsos, 2018, p.103), the synthwave community associate nostalgia exclusively with the 1980s (newretro.net, 2019). This is a useful example of Bourdieu's difference or distinction, in that what synthwave or vaporwave are *not* support each community's recognized identity. A notable difference between synthwave and vaporwave is vaporwave's use of Japanese symbols for titling music or artist names (Schembri & Tichbon, 2017, p.201). The differences between vaporwave and synthwave have been argued extensively by the synthwave community, acknowledging even each other's differing colour schemes (newretro.net, 2019). These matters are discussed through social media forums within the online community and are often in response to blogs and articles written about synthwave. Examples of these include: 'What is Synthwave?' (Cram, 2018a),⁴ 'Everything about Synthwave' (Solaris, 2018),⁵ 'Synthwave Styles' (Freewave, 2018)⁶ and 'What's the Difference Between Vaporwave and Synthwave' (newretro.net, 2019)⁷. These blogs discuss subgenres of synthwave, with some naming exemplar synthwave artists also. Newretro.net discusses visual aesthetics of synthwave, as well as referencing key synthwave media such as the *Drive* (2011) movie. The next section presents Wenger's communities of practice as a theoretical framework to assess online music communities.

1.3.2 Communities of Practice

Anthropologist Jean Lave and computer scientist Etienne Wenger coined the term community of practice while studying apprenticeship as a learning model (Wenger-Trayner,

⁴ Though not its original upload by Cram, this article is accessible from: <<https://electrozombies.com/magazine/article/what-is-synthwave/>> [Accessed September 2022].

⁵ Solaris' article is no longer accessible due to the website being inactive.

⁶ Available from: <<http://synthwavestyles.blogspot.com>>.

⁷ Available from: <<https://newretro.net/blogs/main/whats-the-difference-between-vaporwave-and-synthwave-outrun>> [Accessed September 2022].

2015, p.4). Their 1991 text *Situated Learning: Legitimate Peripheral Participation* documented how practitioners learn through social relationships in the workplace, known as 'situated learning' (Lave & Wenger, 1991). In his 1998 text *Communities of Practice*, Wenger expanded and refined the concept, defining it as: 'a special type of community' which has three dimensions (mutual engagement, a joint enterprise and a shared repertoire). Importantly, Wenger emphasised how practice is the source of coherence which unites such a community (Wenger, 1998, p.72), and that community is resultantly 'not a synonym for group, team, or network' (Wenger, 1998, p.73).

Of the three dimensions in communities of practice (abbreviated to CoP and CoPs henceforth), mutual engagement refers to what community members do and in what context, how they are 'engaged in actions whose meanings they negotiate with one another' (Wenger, 1998, p.73). The second dimension, joint enterprise, 'keeps a community of practice together' (Wenger, 1998, p.77) through collective negotiation, mediating power through a production of practice which takes into account a CoPs 'rules, policies, standards, goals' (Wenger, 1998, p.81). The final dimension, shared repertoire, refers to a CoPs 'routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions [...] which have become part of its practice'. It refers also to the styles by which members express their membership and identities (Wenger, 1998, p.83).

In 2002, Wenger co-wrote *Cultivating Communities of Practice*, which expanded *Communities of Practice* (1998's) focus on individual learning and identity to suggest that businesses might create and cultivate CoPs to improve their competitiveness. Wenger et al (2002) revised the three dimensions of a CoP, demonstrating how the concept has evolved over time. They defined three core characteristics: the domain (a common ground with a sense of community identity), the community (a social structure of engaged members which facilitates learning) and the practice (the shared repertoire or knowledge maintained by the community) (Wenger et al, 2002, pp.28-29). These characteristics engender 'aspects of participation' which motivate members to join such a community, such as caring about the domain and wanting to see it developed. Other motivations include being part of a community and having a community to interact and connect with (Wenger et al, 2002, p.44).

Broadly, Wenger et al (2002) defined CoPs as 'groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise of this area by interacting on an ongoing basis' (Wenger et al, 2002, p.4). Such knowledge is recognised as 'continually in motion', dynamic and changeable (Wenger et al, 2002, p.10) (much like that of musical genre). Wenger et al suggested types of CoPs, such as 'homogenous [composed of people from the same discipline or function] or heterogenous [brings together people with different backgrounds]' (Wenger et al, 2002, p.25). Other named factors of the CoP are related to community size, lifespan, location, formation, and level of

recognition or visibility (Wenger et al, 2002, pp.25-27). The authors also stated seven principles for community design, asserting how 'the goal of community design is to bring out the community's own internal direction, character, and energy' (Wenger et al, 2002, p.51).

The seven principles question how a CoP can realise itself, and include: 'design for evolution, open a dialogue between inside and outside perspectives, invite different levels of participation, develop both public and private community spaces, focus on value, combine familiarity and excitement, and create a rhythm for the community' (Wenger et al, 2002, p.51). Important to note of these principles is how communities evolve with new members who bring 'new interests and may pull the focus of the community in different directions' (Wenger et al, 2002, p.53). The principles also recognise how participation levels in a CoP can differ, with some members taking leadership roles while others maintain a 'peripheral' and observatory position (with everything in between) (Wenger et al, 2002, p.56). CoPs are 'vibrant communities' (Wenger et al, 2002, p.61) which maintain their 'rhythm' through 'the syncopation of familiar and exciting events, the frequency of private interactions, the ebb and flow of people from the side-lines into active participation and the pace of the community's overall evolution' (Wenger et al, 2002, p.63). Such communities become a 'place' with 'a pattern of [...] ongoing activities' (Wenger et al, 2002, p.61).

Activities by CoPs include problem solving, requests for information, seeking experience, reusing assets, coordination and synergy, discussing developments, documentation projects, visits, mapping knowledge and identifying gaps' (Wenger-Trayner, 2015, pp.2-3). Wenger-Trayner (2015) reported that the concept of a CoP is being applied across sectors, concerning: organisations and associations, government, education, the social sector, international development and the Web. In particular, and with relevance to online music communities and the present research, 'New technologies such as the Internet have extended the reach of our interactions beyond the geographical limitations of traditional communities. [This] expands the possibilities for community and calls for new kinds of communities based on shared practice' (Wenger-Trayner, 2015, pp.4-6). Wenger-Trayner recognised notions of power in CoPs, in that with communities of this kind 'decisions need to be taken, conditions need to be put in place, strategic conversations need to be had. [...] Whether you call them leaders, co-ordinators, or stewards, someone needs to do it [...] and it is as well to recognize them for the role they play' (Wenger-Trayner, 2015, p.6).

A CoP is demonstrable in Hennekam et al's (2020) study of female composers using online communities to build and support their careers. The writers took CoP as a theoretical framework with which to examine how 'women composers acquire knowledge and skills and develop their careers' (Hennekam et al, 2020, p.217). The study asserted that CoPs can be 'big or small, local or global, face-to-face, online or blended' (Hennekam et al, 2020, p.221), with this particular research identifying an 'online environment as a network'. Such a network

was posited as a 'beneficial alternative' to in person networking activities where women had experienced a number of gendered challenges (Hennekam et al, 2020, p.220). The study contended that the 'online environment can provide a safe place where women can connect with other women' (Hennekam et al, 2020, p.221). It was concluded that an online CoP should be 'supplemented by other opportunities to learn, connect and share best practices, preferably in a blended (online and offline) format' (Hennekam, 2020, p.227). Hennekam et al's work demonstrates how practices and activities of an online community have the potential to support the challenging of gendered spaces in offline settings, a phenomenon also represented in Farrugia's (2012) research of female DJs in the EDM tradition.

Farrugia's study of female EDM DJs, and particularly the Sisterdjs online network, demonstrates markers of Wenger's community of practice. Sisterdjs was formed in '1996, at the height of the listserv activity' (Farrugia, 2012, p.75), with Farrugia's participant observation of it having taken place in 2001-2004 (Farrugia, 2012, p.77). This period would be considered Web 1.0, with Web 2.0 being defined by the rise of social media from 2004. Farrugia's participant observation of the Sisterdjs mailing list acknowledged its presence as an online music community, 'in the sense that meaningful personal communications were exchanged, and new social formations were created in this virtual space' (Farrugia, 2012, p.74). She noted in particular, how 'these exchanges increased the social and subcultural capital of its participants' (Farrugia, 2012, p.74), which translated to capital offline (Farrugia, 2012, p.80). Accordingly, Farrugia described how female DJs participated in these online spaces to enhance their DJing experiences offline (Farrugia, 2012, p.75), and that the space was 'one of the earliest women-centred EDM spaces online' (Farrugia, 2012, p.76). Her study recognises issues of gender-representation within the EDM tradition, and how women formed and utilised an online community to challenge their marginalisation and accrue subcultural capital within this domain.

This section has provided a short history of community studies, and contextualised online music communities through waves or phases of the internet (Web 1.0, Web 2.0, Web 3.0). Implications of online communities (including notable parameters such as size, community lifespan, demographic, culture, participatory activities and intersection with 'offline') were discussed through case studies chiptune, NIN remixes and vaporwave. Wenger's CoP was also examined for its application to online music communities, such as those by female composers and female EDM DJs. Mention of social and subcultural capital intersected all of the above case studies, and I now expand upon this, alongside subcultural theory, to discuss such a framework's implication to the present research on synthwave. I begin by presenting a short history of subcultural theory, extending this to genre theory and genre formation – both which are essential to the present research of the online synthwave

community.

1.4 Subcultural Theory, Online Music Communities & Genre Formation

The term 'subculture' (Hebdige, 1979) emerged in the 1950s with studies by the Chicago School of deviant and undesirable groups (Jensen, 2018, p.406). Subcultural groups were considered to be a reaction to harsh social conditions, and represented working-class boys developing masculine identities (Miller, 1958). The second wave of subcultural theory developed in the 1970s at the CCCS (Contemporary Centre of Cultural Studies). The CCCS discarded the idea that lack of social status was the main motivation of participation in subcultures, and no longer viewed subcultures as youth groups that were exclusively 'pathological, criminal or deviant' (Jensen, 2018, p.407). Instead, subcultures were viewed as creative collectives by young people, who sought to 'answer' society's problems through group symbolism and unity (Jensen, 2018, p.407).

Representing an ideological shift, and to better reflect contemporary youth cultures of the 21st century, post-subcultural theory offered 'theoretical alternatives to the CCCS framework' such as the neo-tribe (Maffesoli, 1996; Bennett, 1999) and the notion of 'scenes' (Bennett and Peterson, 2004). Originally developed by French sociologist Michael Maffesoli (1996), the neo-tribe addressed 'new patterns of sociality associated with the onset of postmodernism' (Bennett, 2011, p.495). In contrast to subcultural theory's focus on groups united by sociological categories of class or race (for example), the neo-tribe recognised 'taste, aesthetics and affectivity as primary drivers for participation' (Bennett, 2011, p.495).

Music scenes have been conceptualised by Bennett and Peterson (2004), who suggested three types. Defined broadly as 'informal assemblages' which give rise to 'situations where performers, support facilities and fans come together to collectively create music' (Bennett & Peterson, 2004, pp.3-4), scenes may be local, translocal or virtual. The local scene includes 'focused social activity [...] over a specific span of time' in a specific geographic location (such as London's local Salsa scene) (Bennett & Peterson, 2004, p.3). Local scene activity observes how 'producers, musicians, and fans realize their common musical taste, collectively distinguishing themselves from others by using music and cultural signs' (Bennett & Peterson, 2004, p.3). Where local scenes are geographically dependent, translocal scenes are geographically scattered and based around a specific genre or lifestyle. Members 'interact with each other through the exchange of recordings, bands, fans, and fanzines' (Bennett & Peterson, 2004 p.8), and the music festival is an example of one such scene. Finally, the virtual scene 'involves direct net-mediated person-to-person communication between fans' (Bennett and Peterson, 2004, p.11).

Sociologist David Hesmondhalgh disregarded subculture, scenes and neotribe, in favour of music genre. Whilst not 'offering genre as an alternative master-concept', he suggested that genre is a necessary way in which 'to think about the relationships between music and the social' (Hesmondhalgh, 2005, p.32). He asserted how genre 'provides the means to discuss musical collectivities' more successfully than scenes or neo-tribes (Hesmondhalgh, 2005, p.35). Sociologist Fabian Holt too recognised how genre is always 'collective, musically and socially'. He explained, 'Conventions and expectations are established through acts of repetition performed by a group of people, and the process of genre formation is in turn often accompanied by the formation of new social collectivities' (Holt, 2007, p.3). Such 'collectivities' may take the form of online music communities, as with the present research on synthwave. Holt recognised that genres are 'fundamental to understanding musical culture' (Holt, 2007, p.4).

Importantly, Holt observed how the boundaries of genre are unfixed, and dependent upon discourse which plays a major role in their making (Holt, 2007, p.3). He noted that in everyday discourse, 'terms such as genre, style, and idiom are often used interchangeably' (Holt, 2007, p.12). The difference between style and genre has been subject to debate by a number of scholars within the fields of musicology and popular music studies. Such terminologies are recognised as important to consumers by Johansson (2016) 'if genetic categories were not important [...] we could simply use the term "music" without any further categories' (Johansson, 2016, p.46). Fabbri highlighted some of the geographical issues with different genre names, such as Italy's different assumptions of 'Pop' and 'Rock' music (Fabbri, 2008, p.132). He defined a musical genre as 'a set of musical events, real or possible, whose course is regulated by a definite arrangement of socially accepted rules' (Fabbri, 2008, p.136). His definition shows similarities to that of musicologist Tagg, who specified genre as 'a larger set of cultural codes that also include musical rules'. Tagg discerned style as 'musical-structural rules' that imply an 'emphasis on the musical code' (Tagg, 2012, p.267). Style is hence one characteristic of the more holistic genre, the latter which has 'shifting borders' where 'discursive, cultural, musical, and social processes advance, mediate and inform each other' (Whelan and Nowak, 2018, p.455).

Whelan & Nowak describe their 'genre work' of style vaporwave. They define such work as 'an empirical investigative framework for exploring and analysing how local statements and practices work to assert, dispute, or finesse a particular and singular meaning and coherence for a musical style' (Whelan & Nowak, 2018, p.452). They observe how genre work 'serves to delineate boundaries around a genre' which 'thereby populates the inside of a genre' (Whelan & Nowak, 2018, p.452). Their 'genre work' is grounded in research by Hesmondhalgh (2005) and Holt (2007), though they deviate from the former by de-emphasising ideas of music collectives. Instead, they view vaporwave as an online

phenomenon which acts as a vehicle for providing a commentary on capitalism. Whelan and Nowak recognize, however, the significance of vaporwave's position in online contexts, noting how: 'the relation between written description and dialogue and the genre is especially consequential in the online contexts where music such as vaporwave circulates' (Whelan and Nowak, 2018, p.452). An understanding of style and genre is crucial to understanding the ecosystem of the online synthwave community, which is a manifestation of genre formation in a digital context (the internet) of the 21st century. One thing that Wenger's community of practice and theories of genre clearly share, are unfixed boundaries which are dependent upon discourse and dialogue. Such discourse carries with it subcultural and social capital.

Subcultural capital is akin to Sarah Thornton's (1995) definition, which denotes that it 'confers status on its owner in the eyes of the relevant beholder'. Thornton also ascribes subcultural capital as being 'in the know' and having the potential to acquire 'hipness' or varying levels of reputation (Thornton, 1995, p.27). Online community members must be 'in the know' about song components of synthwave to create it, as well as having an understanding of the genre more holistically. Subcultural capital is here also reflective of Bourdieu's (1986) 'social capital'. Bourdieu describes social capital as a collective of the 'actual or potential resources [whether tangible or intangible] which are linked to possession of a durable network' (here the synthwave community). Social capital is 'maintained and reinforced, in exchanges' and the size or scope of which is dependent 'on the size of the network of connections effectively mobilized' (Bourdieu, 1986, p51). This type of capital refers to the synthwave community's proliferation by its members both on and offline, who mobilize its social (or subcultural) capital through creation of associated resources – here music, videos, graphics, webpages, events and community activities. Social capital relates to cultural capital, which Bourdieu defines as familiarity with a culture including its values and merits (Bourdieu, 1984). This can be understood in reference to Thornton's being 'in the know' (1995).

My use of subcultural capital, whilst rooted in Thornton's conceptualisation, acknowledges literature which criticises the term for romanticising issues of class and lacking consideration for the perspectives of women (Jensen, 2018, pp.410-411). As such, my use of subcultural capital reflects that of sociologist Jensen (2018), who proposes reconceptualising subcultures as sociologist Bourdieu's (1986) fields. This allows us to think of 'the social position of agents that participate in the field/subculture' who 'have an impact on what becomes recognised as subcultural capital' (Jensen, 2018, p.415). This definition is apt in my consideration of synthwave community members, who I contextualise with reference to Rice and Ruskin's (2012) 'individuals'. These individuals have agency to influence synthwave subcultural capital. Individuals such as 'innovators', 'key figures',

'average musicians' and 'non-musicians' (Rice and Ruskin, 2012) make up the online synthwave community, an online virtual music community which is interchangeably referred to by its members as the synthwave 'scene'. In favour of online community, the concept of scene is not one adopted by this thesis, but I acknowledge members' usage of the term as meaning 'situations where performers, support facilities and fans come together to collectively create music' (Bennett & Peterson, 2004, p.3). In other words, this thesis does not assess synthwave's position as a scene, examining it instead as a music community. Like subcultures, scenes have also been criticised for their 'gendered epistemology' which inadequately deal with the experiences of women (Hill, 2014, p.174). In my usage of subcultural theory, this is something I find difficult to ignore. I also question a one-size-fits-all approach of the Chicago School or CCCS-style subcultural theory to underpin a study of an online music community, which functions in digital contexts of the 21st century.

With relevance to these issues, I signpost Rosemary Hill's work on female fans of metal, which argued how subcultural theory is a dominant framework with a 'systematic reduction' of women's experiences (Hill, 2014, p.173). Moving away from subcultures or scenes, she proposed the terms 'community of imagination' and 'imagination community' (rooted in Anderson's 1991 imagined community concept) to describe her research on metal fans. She recommended the former particularly for theorizing online communities, though accepted some limitations. 'Community of imagination' does not take into account 'the ways in which communities are structured or the cultures that develop', nor does it allow for the consideration of 'power, tradition and inequality' within the group (Hill, 2014, p.182). For my purposes, the 'community of imagination' focuses too much on 'the relationship of fans to the objects of their fandom' (Hill, 2014, p.182), and lessens the focus on the place of the music creator or producer. Her 'imagination community' is a slightly better fit, in that it acknowledges that the idea of community is idealistic and portrays ideals which are not necessarily reflective of reality. The term highlights how communities are 'thought of as harmonious', but that 'equality harbours biases and gendered and raced values' (Hill, 2014, p.183). She proposes that 'imagination community' opens up 'the space to consider power structures, hidden ideas and discriminatory practices' (Hill, 2014, p.183). Again, her focus is on the experience of fans rather than creators within a community, but the ideological roots of her 'imagination community' are a useful basis through which to understand community with the present research.

A final note on my usage of subcultural theory relates to accessibility. Whilst concepts within post-subcultural theory have widened the scope through which drivers of participation can be viewed, the framework has been criticised for potentially ignoring structured inequalities which 'inform young people's access to cultural commodities and their ultimate use of such commodities in the fashioning of identities' (Bennett, 2011, p.500). I

make particular reference here to my earlier point about accessing the internet: 'The Internet is a mass phenomenon, but it is not universally available, and there are still some underlying inequalities that structure access' (Hine, 2020, p.6). Such a point is vital in recognising a level of privilege by those who are able to engage with, and participate in, online music communities. This is what makes terms such as 'scene' and 'neo-tribe' slightly problematic. Whilst these terms supposedly acknowledge agency, choice, and individuality on the part of members (Jensen, 2018, p.409), such agency might be significantly affected by that individual's level of accessibility, be it financial, time-related, or other factors.

Section 1.2 has provided a contextual summary of key matters related to this thesis of communities, particularly online music communities, and communities of practice. By extension, I have debated frameworks of subcultural theory and their ability to act as a lens through which to view music collectives such as online music communities. Relevant to this are issues of genre theory and genre formation, which are significant in the examination of online music communities, related to subcultural capital and the genre's dominant (or otherwise) discourse.

1.5 Chapter Summaries

The thesis is structured as follows. Chapter 1, 'Introduction & Context', introduces the research for this thesis, stating overarching thesis aims (and objectives) and providing context and background of the study relating to community, communities of practice, subcultural theory, genre formation and the concepts of web 1.0, 2.0, 3.0.

Chapter 2, 'Literature Review' reviews literature on online music communities, internet-mediated genres and communities of practice. It also includes a short section on existing research on synthwave.

Chapter 3, 'Methodology' explains the methodological approach of the thesis, outlining an ethnographic approach with virtual ethnography, participant observation and autoethnography.

Chapter 4, 'Defining the Synthwave Community of the 21st Century', uses virtual ethnography, email interviews and an online survey to provide a chronological reading of the online synthwave community. I assert the community's privileging of 1980s culture and aesthetics, and assess tensions and negotiations of synthwave subcultural capital with relevance to synthwave's genre formation and the community's collective identity. In a discussion of synthwave milestones, I establish two 'key figures' (Rice & Ruskin, 2012), 'Rick Shithouse' and 'Iron Skullet', who contributed to the community's formation and development. Significant milestones of the synthwave community include the formation of synthwave subgenres in the 2010s and recognition outside the community since the mid

2010s (owed to key media synchronisations). The chapter seeks to characterise the online synthwave community and its history, providing important context for future ethnographic chapters.

Chapter 5, 'Synthwave Creative Processes' explores the online synthwave community's engagements with music production and technology, particularly in using plug-in emulations of 1980s analog and digital synthesizers for creating the style. The chapter both establishes (through virtual ethnography) and demonstrates (through autoethnography) key considerations in the synthwave creative process. The chapter outlines how the community engages with music technology to privilege 1980s culture and emulates sonic markers from this decade.

Chapter 6, 'A Gateway from Metal to Synthwave under the influence of John Carpenter: the Darksynth subgenre' analyses the darksynth subgenre, examining its artists, stylistic features, issues of gender and musical and cultural influences. It provides an account of synthwave subcultural capital, particularly of the community's regard for American film maker and music composer John Carpenter. Whilst Carpenter is more broadly acknowledged by the community for his links to soundtrack music and speciality with synths (two facts which synchronise key identity components of the online synthwave community), it is the darksynth subgenre which takes musically from his soundscapes. In an analysis of darksynth, the chapter includes virtual ethnography, interview data, one case study song analysis and one autoethnographic composition.

Chapter 7, 'Female Topleiners: Popwave and Gendered Practices of Synthwave' examines popwave, a synthwave subgenre uniquely represented by female and non-binary artists. Through their role as toplineers and collaborators, paired with their skills in music performance and production, female and non-binary artists have made a significant contribution to synthwave with the popwave subgenre. In an analysis of popwave, the chapter includes virtual ethnography, interview data, one case study song analysis and one autoethnographic composition.

Chapter 8 'Live Music Synthwave Practices' examines synthwave style parameters and subcultural capital through live music practices. The chapter uses two live concert ethnographies as the basis for analysis through which to observe style parameters of synthwave in a live setting. As a continuation of research of darksynth (Chapter 6) and popwave (Chapter 7), one representative artist from each subgenre is observed in a live setting.

Chapter 9 'Discussion' draws together my findings from chapters 4-8, integrating portions of the literature review.

Chapter 10 'Conclusion' concludes my study, presents my original contribution to knowledge and proposes recommendations for further research.

Chapter 2: Literature Review

Theoretical implications of this thesis concern online music community and communities of practice (hereafter CoP) (Wenger, 1998), with particular reference to ‘internet-based creative practice[s]’ (Born, 2018, p.606) or ‘internet genres’ (Glitsos, 2018, p.103). This relates to music genres which have formed in the age of the internet (also referred to as Web 1.0, 2.0 and 3.0) but considers also CoPs which orbit around existing genres (or ‘pre-internet’ genres) (Waldron, 2009; 2012, 2013). As such, my literature review concerns music genre (extending to subcultural theory), online music community and CoPs. I also give consideration to online music communities which may not specifically relate to genre theory (Hesmondhalgh, 2005; Holt, 2007; Tagg, 2012) but do exhibit signs of a CoP. For clarity, and as my discussions outline shortly, not all online music communities are CoPs (i.e. online music communities are not synonymous with CoPs).

Specifically, I consider studies of music communities in terms of how they formed (through what mechanisms), how they are distinguishable and recognisable (their identity and values), how and where community activities take place (inclusive of their significance, as well as being considerate to offline activities), and what outputs or artefacts (whether musical or otherwise) are affiliated with, or emanate from, the music community. I consider Wenger’s CoP important for its applicability to genre formation in a digital context. In other words, I acknowledge that an online music community of the 21st century can be viewed as a CoP, as it forms its genre around knowledge, capital and tangible musical outputs. For this reason, I outline studies of music community and genre formation which discuss knowledge legitimisation and style authenticity, as well as those which highlight issues of membership and community identity.

The theoretical implications of this chapter are structured as follows. Firstly, I examine studies of online music communities which do not necessarily orbit around a musical genre. Rather, these examples demonstrate the presence of, considerations with and activities of online music collectives (characterised by some authors as internet-based scenes or virtual scenes). These studies are predominantly from the first decade of the 2000s, or very early 2010s, and characterise the periods of Web 1.0 and early Web 2.0 (Section 2.1). With more contemporary literature from the late 2010s, subsection 2.1.1 considers studies of music genre which might be considered internet-mediated, in that said genres were either formed online or operationalise some sort of ‘internet-based creative practice’ (Born, 2018, p.606). Studies discussed do not necessarily consider their respective genres as online music communities, but in all cases recognise a stylistic and genre collective (such as that of vaporwave [Glitsos, 2017]) (Section 2.1.1). Secondly, I discuss the

limited examples of existing research on synthwave (Section 2.2). Lastly, I discuss online music communities alongside Wenger's CoP, outlining studies which have utilised Wenger's theory to assess such communities (Section 2.3). A notable portion of this section includes the work of Janice Waldron, a music education scholar.

2.1 Online Music Communities

This section reviews online music communities alongside a chronological account of Web 1.0, Web 2.0 and Web 3.0, to make clear the context within which, online music communities have operated over time.

One Web 1.0 study of online music communities (conducted by ethnomusicologist Lysloff [2003]) described the activities by mod composers. This study assessed how 'locality and community' are established on the internet (Lysloff, 2003, p.234) through users of 'digital music modules' and 'trackers' to formulate an online community of 'mod composers' (p.235). Lysloff's 'internet fieldwork' (p.235) took place in the late 1990s (Web 1.0) (p.234), in response to his assertion that there is 'not enough close-to-the-ground ethnographic study[s]' of what 'the internet makes possible' (Lysloff, 2003, p.233). His position within the research was that of participant-observer, which he paired with interviews via email exchange or electronic chat systems.

To gain access to the community, Lysloff needed to be a mod composer himself, and as such was tutored by 'a young composer from Israel who called himself TrackZ' (Lysloff, 2003, p.239). The study does not report on the reception by the scene of any of Lysloff's compositions and retains a focus on the activities and operations of the scene more broadly, such as 'coding', 'ripping' and 'remixing' (p.249). The study also does not consider any one genre as indicative of the mod scene, though recognises types of 'electronic music' (p.248). To collect data, Lysloff never left his home due to there being 'no mod scene in the physical world' (Lysloff, 2003, p.244). Through an immersion into the online scene he recognised its 'social order', a hierarchy of 'graphic artists, musicians, programmers, music experts and fans' (p.242). He also recognised types of 'prestige' earned for 'knowledge of tracking and computer-programming', as well as 'music theory and compositional technique' (Lysloff, 2003, p.243). Whilst Lysloff did not frame the mod scene as a community of practice nor as a cohesive genre, he suggested how it may be regarded as a subculture given its 'informational systems of exchange' (p.256), the trading of 'music files' (p.256) and rituals of inclusion and exclusion (p.249) such as 'virtual banishment' (p.252). Of knowledge legitimacy and community practices, he reported how composing is judged based on 'tracking' ability and experience, the length of time you have been a member of the community, and your 'popularity' (Lysloff, 2003, p.242). Overall Lysloff concluded that the

mod scene is an online music community with distinct forms and practices (Lysloff, 2003, p.256).

Though Lysloff recognises the mod scene's subcultural tenets, his study does not utilise genre theory (likely because he does not consider it a cohesive or singular genre in the first instance). However, sociologists Lee and Peterson's (2004) study of the Alt Country 'internet-based scene' does explore the way that 'virtual interactions can be the source of music genre formation' (Lee and Peterson, 2004, p.187). Their study also demonstrates how an online scene can intersect with offline activities (such as 'Twangfest' [p.196]). This is unlike Lysloff's mod scene, which does not include affiliated 'offline' or 'real life' activities. Lysloff's study is also different in terms of scene activities, reporting composition activities where Alt Country does not. The Alt Country 'internet-based scene' (known as 'Postcard2' or 'P2', 'the most active listserv devoted to alternative country [...] established in 1995' [p.190]) is instead fan-centred, 'musicians do not present their music on P2. Rather, [...] P2 is focused on fans' reactions to the music and not on creating and experiencing the music itself' (p.201). Despite this, the scene still recognises 'certain [musical] characteristics' of alt country, and Lee and Peterson concluded how this 'internet-based scene' plays a 'significant role in shaping the development of alternative country music' (p.202).

Lee and Peterson observed 'P2' for 'twenty-four months between 1998 and [2003]', participating in the group by posting messages. They accessed archives, 'communicated off-list with other members about questions relating to P2' and 'occasionally talked with other list members at performances and other public events [such as Twangfest]' (Lee and Peterson, 2004, p.191). Finally, they triangulated this data with 217 survey responses (p.191). Some of these methods synchronise with my own for this thesis, however, both Lysloff and Lee and Peterson's studies are uninformed of social media and Web 2.0 phenomena, due to the time period of both studies. They do, however, highlight key areas of focus for online music communities, of: community activities, online/offline boundaries, member hierarchies and subcultural rituals or capital, and perceived style or genre collectives. Finally, and with relation to the present research, Lee and Peterson's study is limited overall in that P2 is purely a music community of fandom. Equally, Lysloff's study is limited autoethnographically, he reports minimally on his position as a composer in the community (beyond stating he was tutored by member TrackZ).

A further study of online music community is that of Jarvenpaa & Lang (2011) (the former a business and technology scholar and the latter a scholar of information systems). Whilst their Nine Inch Nails (NIN) case study is also fan-centred, it does begin to consider the fan as creator within a Web 2.0 context. Particularly, the study investigates how boundaries of online music communities are formed and are managed to render creative content, such as those of fan-created NIN remixes. Through an 'abductive reason[ing]

strategy' that uses 'inference to the best explanation (IBE) as its method to develop (theoretical) explanations for the observed phenomenon' (p.445), the authors also 'collected qualitative data from the discussion forums [and] communicated via email with site administrators' (Jarvenpaa & Lang, 2011, p.445). Structured online interviews with 'participating community members' were conducted as part of the study, and the authors participated actively in the remix community, 'preparing music remixes and posting comments to gain experience on the sites' (p.445). The study demonstrates how community boundaries form alongside community goals, which has an impact on other community boundaries such as those of (community and individual member) identity, (individual members' creator) competence and (user interface) efficiency. With the NIN site, identity was shown to be of particular importance in terms of community goals, but as potentially creatively limiting due to numerable remix rules. This is a result of the band's usage of the remix site as an extension of their own brand identity, with the balancing of 'commercial and community interests' limiting community growth and autonomy overall.

Jarvenpaa & Lang recognise the NIN remix site as an online music community, and their study demonstrates this phenomenon in a Web 2.0 context. The study also goes beyond fan-centred communities to consider the role of creators within online music communities. Jarvenpaa & Lang recognise key implications of online music communities in the 21st century, in that: 'OCs [online communities] represent a new type of organisation where ideas, resources and members flow in and out and boundaries are highly permeable and dynamic' (Jarvenpaa & Lang, 2011, p.441). Despite an apt consideration of boundaries in online music communities conceptually, they do not consider the boundaries of a genre. They also do not comment on their own participation of remixing within their case study communities, despite reporting this as part of the methodology.

2.1.1 Internet-Mediated Genres

One notable neighbouring style to synthwave is vaporwave, considered by Glitsos (2018) as an 'internet genre' which 'emerged solely on and through digital platforms' (p.103). Other studies since the mid-2010s have made similar assessments, considering vaporwave a 'digital music subculture' (Schembri and Tichbon, 2017), an 'internet genre' (Glitsos, 2017, p.103), a 'nostalgia genre' (Born, 2018, p.633) or 'online subculture' (Born, 2018, p.634). These sources do not exclusively discuss vaporwave as an online music community but do at times include the concept of community in their discussions.

Schembri and Tichbon's (2017) study of vaporwave (the former a subcultural theorist and ethnographer and the latter a psychologist) extends Jarvenpaa and Lang's (2011) considerations of fan creators in an online context. They considered how members of the

online vaporwave subculture are cultural producers of it, using overt participant observation across multiple social media platforms, virtual interviews and analysis of media material (p.191). With 'evidence of Vaporwave creations offering a cultural discourse' (p.199) Schembri and Tichbon found that vaporwave participants are 'working consumers [who are] actively, reflexively and creatively taking on multiple cultural roles' within the online subculture and can hence be considered 'cultural curators' or 'cultural producers' of it (Schembri and Tichbon, 2017, p.203).

As part of their study, Schembri and Tichbon (2017) analysed 'key player' (Rice and Ruskin, 2012, p.305) vaporwave artists (and songs) with relation to aesthetics and themes of the genre, notably of capitalism, nostalgia and consumerism (pp.197-198). Whilst some descriptions of music production are included (e.g. p.197, p.199), these function as "light" paramusical (Tagg, 2012, p.229) analyses and serve only to communicate the aforementioned themes of the genre in relation to creator practice. These descriptions would not be considered musicological, nor do the authors include autoethnographic work in writing and producing vaporwave.

Only some of Schembri and Tichbon's interview participants consider vaporwave a 'genre' (p.200-201), and the authors are equally less consistent in using this term. They more fluidly debate vaporwave's existence as a 'music genre, subculture, community and movement' (p.204). One of their interview participants who argued against vaporwave as a genre described it instead as: 'a niche, fluid, online community of creators' (p.203). Interestingly, this participant did not view himself as part of the vaporwave community any longer, due to the continued 'politics' which are 'draining, restrictive and boring', particularly with reference to 'copy-cats who ride on the coat tails of original creators' (Schembri and Tichbon, 2017, p.203). These comments highlight issues of perceived style authenticity within the community, which have developed a perceived original era of the style, and a perceived period after or outside of this.

There exist similarities in Schembri and Tichbon's (2017) methodology to my own research, in that the authors firstly conducted covert observation of social media sites where community activity was taking place, before the study formally began a short while later (pp.194-195). Equally, their analysis of 'key players' (Rice and Ruskin, 2012, p.305) and highlighting of vaporwave musical works show similarities to my work, as do the authors' considerations of subgenres within the vaporwave subculture ('hardvapour' and 'dreamvapour' p.203). However, this study ultimately focused more on creator activities by members of the online vaporwave 'subculture, community and movement' (p.204), rather than definitively exploring vaporwave's status as a genre which formed on the internet. An author who does take a more genre theory led approach to vaporwave is Laura Glitsos.

Laura Glitsos, a media and communications scholar and cultural theorist, considered to what end the vaporwave genre is a type of 'memory play' which engages with 'compensatory' and 'ersatz' nostalgia (p.100). Like Schembri and Tichbon (2017), Glitsos analysed vaporwave works, in her case, selecting one case study artist and suffusing analysis with 'online discussions [...] extrapolated from the Reddit.com community' (p.101). Whilst her usage of Reddit as a data site bears similarities to my research, Glitsos acted only in an observer capacity while I acted as participant-observer. Her study is also unlike mine in that she does not include an autoethnographic component in performing or creating vaporwave. Glitsos is in fact a musician and performer, so it is entirely possible that her future research may incorporate a practical approach.

Glitsos approaches vaporwave as a 'popular music genre' (Glitsos, 2018, p.101), stating that 'vaporwave can be read as a genre' (p.102) or an 'internet genre' which 'emerged solely on and through digital platforms' (p.103). Her position towards vaporwave as both a genre (or 'internet genre') and online community is comparable to my position with synthwave. As she explained: 'What makes vaporwave most distinctive is perhaps the community of artists and listeners who use the same platforms on which the music is exchanged to discuss the "meanings" of the music itself and the kinds of affective strategies involved in its production and consumption' (Glitsos, 2018, p.102). Despite this, the focus of her analysis is on nostalgia and memory play, and the data collected from Reddit focused on the 'listening experience' of vaporwave (p.114), rather than explicitly the operations of an online community. She concluded that the genre of vaporwave is 'a process of audio-visual collage that deploys the act of remembering as a central feature and concern' (Glitsos, 2018, p.114). Another scholar who considers vaporwave a genre is Georgina Born, an anthropologist and musicologist.

Georgina Born's study of internet-mediated musics considered five genres with 'substantial internet-based manifestations that are central to their communicative practices, the social formations they assemble [and] aesthetic dimensions' (Born, 2018, p.602). Defining these as 'internet-based creative practice[s]' (p.606), her paper aimed to 'advance genre theory in relation to music [...] for the internet changes what a music genre is in the twenty-first century' (p.602). Her methodological approach combined 'empirical and interpretative work' with Issue Crawler (IC) software, 'a tool for analysing and visualising networks of hyperlinking on the world wide web' (p.602). The IC results offered 'a visualisation that enables us to examine the novel musical, discursive, social and material practices that have emerged in association with the five genres, thereby providing a richer account of the genres themselves' (Born, 2018, p.603). IC was used in conjunction with Born's own theory of musical mediation, which have four 'planes' or tenets. The 'planes' can be summarised as, first: diverse social relations in musical performance, practice,

ensembles, or divisions of labour (such as a band, club, audience or recording studio), second: imagined communities or virtual collectives (such as online music communities), third: how social identity formations may refract into music (identities concrete or abstract), and fourth: social and institutionalised forms which facilitate the production, reproduction, and transformation of music (Born, 2011, p.378).

In her analysis of vaporwave, Born asserted how it 'embodies the participatory, user-generated content of web 2.0', with a 'weak separation between producers and audiences' (p.634). She explained how participants engage in 'surreal practices riffing implicitly on notions of DIY [and] the amateur' (Born, 2018, p.634), and that participants ('Artists, fans, critics and labels – inasmuch as such distinct roles exist in vaporwave', p.636) are committed to 'defining, honing and reproducing the vaporwave aesthetic (p.636). Born also recognised a sense of anonymity afforded by the internet and utilised by those who engage with vaporwave, with 'pseudonymous avatars' (p.638) and names of 'unpronounceable strings of symbols and characters, or Japanese translations of English phrases' (p.634).

Born's methodology is distinctly different to mine, namely that no interviews are conducted as part of her study, and no music analysis (beyond aesthetic descriptions), or autoethnographic data are included. The limitations of Born's IC software support a longer termed study when researching online music communities or 'internet-based creative practice[s]' (p.606), which my research accounts for. Specifically, the data for my research was collected over a 5-year-6-month period, while Born admits her IC software was only run once (per genre for each of her five genres). She suggested: 'running the IC software regularly at intervals would improve understanding the practices of a single evolving genre (p.642). Her IC software might also have been triangulated with interview data, to provide further explanations for IC findings. Again, my study accounts for this, triangulating virtual ethnography with interview data.

Born's study values mechanisms of the internet in the formation of a genre, which makes her study extremely relevant to my research. She recognises key facets of the online community such as online/offline activities (which for vaporwave there were few at the time p.634), as well as collective identity issues of 'underground' vs 'mainstream' (and like other writers of vaporwave, Born finds the 'underground' status ironic p.640). She rightly concluded that 'the exponential growth of internet-based creative musical practices necessitates a new approach to the theorization of genre' (p.606). Born also recognised the Anglo-American nature of 'internet-based creative practice[s]' (p.606) such as vaporwave (despite vaporwave appropriating images of East Asia p.642). Her views synchronise with mine that, 'the identity of music genres have become more complex online [...] a constellation of non-sonic mediations – discursive, visual, social, material and technological – characterises each genre' (p.641).

2.2 Existing Research on Synthwave

At the time of writing (November 2022) there remains limited research of synthwave within academia – and there was little or no peer-reviewed work when I began researching it in 2017. Since that time, I have noted three undergraduate theses (Kataja, 2017⁸, Miranda, 2018⁹, Hornyak, 2019¹⁰) and one MA thesis (Kraujalis, 2020¹¹), all of which are outside the English language, and all consisting mainly of secondary research (their sources being mostly non peer-reviewed blog articles, many which have been identified by this thesis e.g. Solaris [2018] and Preston Cram's [2018-] synthwave articles). There is one contribution to a book series (Sora, 2019), one article with a very partial mention of synthwave (Ballam-Cross, 2021), and one conference paper (Merlini, 2020¹²). This does not include my own conference contributions since 2017, some of which are available to view.¹³

The sources outlined above range broadly in their approach to researching synthwave. Hornyak's (2019) title translates to 'Anytime but now. The Cultural Environment of Synthwave'. It debates synthwave alongside concepts of hauntology and nostalgia, whilst exploring synthwave's ties to 21st century media across film and game. Ballam-Cross' (2021) article follows a similar trajectory of synthwave's 'reconstructed nostalgia' (Ballam-Cross, 2021, p.70), while Merlini's conference paper too considers synthwave in relation to cinema and 'retrofuturism' (Merlini, 2022). Kraujalis' (2020) title translates to 'Synthwave music style: strangeness and hyperreality', considering synthwave a 'postmodern musical movement' or 'hyperreality' (Kraujalis, 2020, p.4). Having translated large portions of the Hornyak's (2019) and Kraujalis' (2020) articles, as well as having reviewed Ballam-Cross' (2021) article and Merlini's (2022) conference paper (both in English), I noted that none utilise any primary research methods in their investigation of synthwave, nor consider any theories of music community in their assessment.

Miranda's (2018) title translates to 'Relationships between image and electronic music: the visuality of the synthwave genre', focusing on synthwave artist Perturbator (of the

⁸ Original language is Finnish. Available from:

<https://www.theseus.fi/bitstream/handle/10024/127262/Kataja_Arttu.pdf?sequence=1>.

⁹ Original language is Portuguese. Available from:

<https://repositorio.ufrn.br/bitstream/123456789/38080/1/RelacoesEntreImagemMusicaEletronica_Miranda_2018.pdf>.

¹⁰ Original language is German. Available from:

<<https://kups.ub.uni-koeln.de/53592/1/Anytimebutnow2019.pdf>>.

¹¹ Original language is Lithuanian. Available from: <<https://gs.elaba.lt/object/elaba:62219318/>>.

¹² Merlini (2022) Available from: <<https://bit.ly/3fKwG1p>>.

¹³ 'Metalheads in the Synthwave Community' by Jessica Blaise Ward Available from:

<<https://www.internetmusicking.com>> (May, 2022), 'Style and digital music genres: Combining music style parameters with the paramusical' by Jessica Blaise Ward Available from:

<<https://drive.google.com/file/d/1l6t6J0j2tHx6OyjiDGvYrKu9iSwj4NsY/view>> (January 2020).

darksynth subgenre). This undergraduate thesis includes graphic illustrations as part of the research design and as an explorative and interpretative exercise of synthwave's links to black metal. Like Miranda (2018), Sora's (2019) work is also rooted in the darksynth subgenre of synthwave. Through theories of persona (e.g. Auslander, 2016; Frith, 1998; and Moore, 2012) and proxemics, he investigated the expression of instrumental persona by artist Carpenter Brut. Necessary uses of music technology language are present throughout the article, but without the compositional, musicological or autoethnographic components that my research employs. Where Sora refers to 'different synth tones' (p.156) and 'various soft and hardware synths' (p.159) my position as a composer and performer of synthwave expands this insight.

The position of composer is also taken by Kataja (2017) with their undergraduate thesis of synthwave titled 'Electronic Dance Music: Synthwave Single Production'. It documents the author's compositional and production process of writing three synthwave songs, being predominantly focused on the author's development as a producer and composer of synthwave. There is very little contextualisation with which to compare compositions (apart from a few introductory paragraphs about synthwave). My research addresses this in two ways. Firstly, my research includes case study analyses of exemplar synthwave works to compare my compositions to. Secondly, I include a significant amount of historical and contextual data to support my analyses and compositions, gained through ethnographic methods. To summarise, whilst some of the aforementioned sources recognise synthwave's status as a musical genre (or acknowledge key media associations such as *Drive* (2011) and *Stranger Things* [2016-]), none consider synthwave's genre formation alongside its online music community. Moreover, none consider synthwave as a community of practice in the 21st century.

Outside of academia, synthwave can be found across some blogs and personal websites. One such example is the work of Preston Cram, a former synthwave journalist and music reviewer who at one time operated a personal website about synthwave (which is no longer active, but was formerly: <https://ironskullet.com>). Cram's articles served as synthwave community resources, and Cram stated at the end of each, 'All information on synthwave was written using Iron Skullet's original research'. A popular article by Cram was his 'What is Synthwave?' (2018b) article, which documented synthwave's subgenres with exemplar artists, incorporating a chronology of when the subgenres occurred or were established within the 2000s and 2010s. Whilst Cram's website is now defunct, his articles still circulate the online synthwave community through replicated copies. Interestingly, his articles do not recognise the online community which surrounds synthwave, and the closest reference he makes to any sort of music collective is 'the synthwave genre', alongside using terminology

such as 'fans and producers', 'underground', 'mainstream', 'newcomers to the scene' (Cram, 2018a).

A second example of a synthwave blog article is by Solaris (2018), which, like Cram's (2018), is now defunct. Similar to Cram, Solaris (a presumed pseudonym) documented synthwave's subgenres with exemplar artists, incorporating a chronology of when the subgenres occurred or were established within the 2000s and 2010s. He also noted key synthwave instruments such as the 'Korg Polysix' and 'Oberheim OB-X'. He recognised the neighbouring community of vaporwave, distinguishing it from synthwave in that it is: 'not really a subgenre of synthwave [...] [it is] self-sufficient [as a genre]' (Solaris, 2018). Solaris recognised the online community more so than Cram, describing synthwave's 'niche fanbase' and status as 'a genre with its own codes, its own universe, its own influences and references from different media' (Solaris, 2018). He concluded that 'the synthwave genre' or 'the synthwave movement' is 'a complete art form, accessible and understandable by all' (Solaris, 2018).

A third example of a synthwave resource (which functions as an interactive website with a clear user interface rather than a single blog article) is by Freewave (a presumed pseudonym). The site is titled 'Synthwave Styles – A Guide to the Styles of Synthwave and Links for the Community' (2018), and is active at the time of writing (<http://synthwavestyles.blogspot.com> November 2022). The site clearly recognises synthwave as an online music community, and documents not only synthwave subgenres, but also provides community resources such as synthwave playlists, articles, Reddit groups, blogs, internet radio and podcasts.

This section has outlined existing research of synthwave, from a range of different sources. The limited amount of research present in academia (as well as outside it) is a product of synthwave's current lifespan of around 15-20 years (at the time of writing, November 2022).

2.3 Communities of Practice

The work of Janice Waldron, a scholar of informal music learning practices and community music, is particularly relevant with reference to online music communities and communities of practice. Her 2009 study assessed informal music teaching and learning practices of the Old Time (OT) online music community (Waldron, 2009, p.97). In contextualising her study, she acknowledged how music genres had begun to coalesce around online spaces at the turn of the 21st Century: 'Over the past ten years, online communities of practice have evolved in cyberspace formed around different folk music genres, including Bluegrass, Irish Traditional, and Old Time (OT) music' (p.97). Waldron's methodology utilised a

'cyberethnographic technique' (p.101), with her position as lurker (or 'hidden participant-observer') to enable her to test her theory that the OT community is a CoP (p.101). Waldron used Wenger's CoP as a 'a theoretical framework to guide an exploration of a virtual place', and 'focused on evidence of Wenger's four components of learning as social practice – meaning, practice, community and identity – in the OT online community' (Waldron, 2009, p.101).

Whilst the study focused on informal learning practices of the OT community, such as participants awareness of their own learning styles (p.109), Waldron observed many key facets of a community of practice at work. With her data, she recognised 'the three interlocking dimensions required to fulfil practice in CoP' (p.104). One such example is a community thread by OT member Christine, who requested MIDI files from the community to learn a song. This spurred a community discussion about methods to interpret OT works (e.g. tablature, notation, recording CDs, MIDI) as well as about key repertoire (artists accepted into the musical canon) of OT (p.104). When engaging with OT repertoire, Waldron noted how participants 'use, adapt and manipulate technology for music learning; ask for feedback; help one another; freely share resources; ask and answer questions; and demonstrate knowledge and understanding of OT music' (Waldron, 2009, p.109).

With regards to OT music knowledge, Waldron noted types of members who display such knowledge, with categories of 'old timers' and 'newbies' (p.105). She demonstrated an interaction where a 'newbie' was ignored because of their lack of knowledge of OT (the newbie having mentioned blue grass on the OT forum). This caused issues of collective identity for the group, and the newbie was challenged for their mistake (p.106). Waldron also established how knowledge and meaning is negotiated and mediated in the OT community, noting the 'Sugar in the Gourd (SITG) website' as a 'primary congregating space' for members. She concluded that: 'the OT online community constitutes a CoP as [Wenger] defines it' (Waldron, 2009, p.108).

A later study by Waldron (2012) also researched communities of practice, notably of the Banjo Hangout online community. She continued with a cyberethnographic study (p.2), including data from online interviews and questionnaires, vlogs, blogs and chat room conversation. Her study sought to understand how belonging to an online music community can facilitate informal learning for participants (p.3). She noted in particular, the role of YouTube as a function of participatory culture in the community, where YouTube videos 'act as vehicles of agency to promote and engage [with the community, as an] informal music-learning resource' (Waldron, 2012, p.4). She noted how the Banjo Hangout online music community included offline factions, with members discovering their local offline banjo communities through the online community (p.7-8). Waldron concluded that the Banjo Hangout, which is 'maintained solely by members volunteering their time', 'overlaps with

other musical communities of practice based around the same musical genres' (p.11). She highlighted how the community continues to 'grow and expand on and offline, [with] overwhelming evidence of a successful integrated community of practice as a complete entity' (Waldron, 2012, p.11).

Waldron continued research of the Banjo Hangout in her 2013 study, where she compared this online community with another (the Online Academy of Traditional Irish Music) (Waldron, 2013, p.257). This research too, focused on participatory culture and music learning in online music communities, however within the context of user-generated content (UGC) and with reference to 'prosumers' (p.258). Prosumers are those who 'actively produce and consume digital content, instead of being passive media consumers' (p.258). Waldron recognised YouTube as a popular form of UGC which instigates discourse in an online music community, to enable 'participant understanding as meaning(s) [emerge and evolve] through collective discussion' (p.259). She summarised how YouTube videos can 'act as catalysts for discussion on site forums' (p.259). YouTube as a platform was established in 2005 and is framed within the context of Web 2.0 – a progression of the internet which Waldron contends is 'significant in the growth of online communities as sites of participatory culture' (p.260). Waldron asserted how Web 2.0 applications have 'grown to be an integral part of online [music] communities' in the 21st century (Waldron, 2013, p.260).

The Banjo Hangout was founded by Webmaster Eric Schlang on a dedicated web domain (www.banjohangout.org), and members of it: 'post comments, read threads, [and] upload various types of UGC [user-generated content]' (p.263). The Hangout is dedicated to all things 'banjo' and the 'site is divided by genre (Celtic, Old-Time and Bluegrass) and further categorised by topics of interest, for example, music theory, banjo building/collecting, and a place to post mp3s and/or videos' (Waldron, 2013, p.263). One example of a Banjo Hangout participant who creates content is Cathy Moore, 'an experienced Old-Time banjo teacher and musician' who 'has a series of free Old-Time instructional banjo videos on YouTube' (p.265). Of online music communities and participatory learning culture, Waldron concluded that we are only seeing the 'tip of the iceberg' of the 'possibilities a globalised society offers music learning and teaching' (Waldron, 2013, p.272).

Besides teaching and learning, other possibilities of communities of practice are examined by Hennekam et al in a study of female composers building and supporting their careers (Hennekam et al, 2019). This research considered how female composers use online communities of practice to negotiate the traditionally masculine space of music composition. It recognised how 'the online environment can be a supportive and safe space for female composers to connect with others and find support, feedback and mentorship' (p.215). The authors' methodological approach consisted of 225 surveys and 27 semi-structured interviews, with a wide range of composer genres represented in the surveys and

an international reach overall with regards to composer demographics (pp.218-219). One difference between this study and Waldron's (2012, 2013) studies of online music communities is that no particular place, field or website was chosen to source the data. Instead, survey respondents were recruited through social media and by the authors' contacting conservatoires, educational institutions and music and composition related associations and networks (p.218). Survey data revealed that 'the online environment was used to overcome challenges related to learning and networking' (p.219), with overall themes from the data demonstrating how female composers use CoPs to develop their own practice and seek opportunities to advance their careers (p.223). The authors concluded that this CoP acted as a safe space or 'an alternative approach to career development' for female composers, enabling them to 'circumvent some of the enduring gendered challenges' (p.215) within their career field.

Whilst the work of Waldron (2009, 2012, 2013) and Hennekam et al (2019) has theoretical value in relation to my own research, the latter does not utilise virtual ethnography and neither study utilises genre theory. Whilst Waldron's research does give consideration to how genres have coalesced in online spaces within a Web 2.0 context (Waldron, 2009, p.97), her work does not constitute subcultural theory or musicological in nature in this sense. Her work focuses on the issues and potentials of music pedagogy via computer mediated communications, just as Hennekam et al (2019) focuses on the potentials of computer mediated communications for working female composers.

Literature Review Conclusion

In summary, one key theoretical gap I have identified is the application of Wenger's CoP theory to internet-based genre formations of 21st century online music communities. Whilst Janice Waldron's work is closest to my theoretical approach, she examines online music communities primarily pedagogically and almost exclusively within the field of music education. However, some of her considerations of online music communities (e.g. UGC – User Generated Content, Web 2.0, participatory culture, motivation for participation, types of members, online/offline community activities) are relevant to my research. I have also noted that composer autoethnography is underreported in 21st century studies of online music communities, which leaves a gap in literature for tacit knowledge of first-hand experience in being a performer or composer in these types of community. Whilst studies do state being participant-observers of online music communities, they report on these findings minimally, and particularly with relation to creator work such as remixing, composing or performing. The findings from my literature review lead to my methodological design, which is grounded in ethnography.

Chapter 3: Methodology

This section outlines the methodological framework of the research, including research philosophy, relevant fields of enquiry, research methods, sampling techniques and ethics. Being primarily interested in the genre formation of synthwave, this thesis adopted an ontological position which acknowledged ‘multiple realities’ (Denscombe, 2010). Social research methodologist Denscombe termed this as ‘different groups of people [seeing] things differently’, in that realities vary from ‘situation to situation, culture to culture’ (Denscombe, 2010, p.97). Such an approach is apt with synthwave, which is an online music community engaged with by musicians, composers, DJs, producers and fans alike.¹⁴ Synthwave is the sole case study of this thesis. Case study scholar Yin (2009) impressed the importance of ‘binding’ case studies via a unit of analysis (here synthwave’s genre-formation), advising their selection when research questions surround the ‘how’ and the ‘why’ (Yin, 2009, p.4). This suitably leads to an epistemology of interpretivism, a paradigm associated with qualitative methods and characterised by an acceptance of ‘multiple realities’ (Denscombe, 2010). Denscombe outlined some of the priorities of the interpretivist, which include: ‘*How* and *why* things happen: in terms of possible mechanisms, [the] potential causes [inclusive of] *when* and *where* the study took place’. This relates to the: ‘cultural and historical context [and] social values’ which surround the location and time of the research (Denscombe, 2010, p.236). These priorities align with the aims of this thesis, which concerned *how* and *why* the synthwave genre was formed, by an online community of internet users throughout the 21st century (the *when* and the *where*). The consideration of ‘cultural and historical context [and] social values’ (Denscombe, 2010, p.236) were key in situating synthwave in the 21st century, as well as tracing synthwave’s musical and cultural roots from the mid 20th century.

This research is grounded in popular music studies, a field which since the 1980s (and formation of IASPM in 1981¹⁵) has ‘emerged as a globally established and multi-disciplinary field’ (Bennett et al, 2006, p.5). Within the field, styles of popular music are explored from a variety of perspectives; including media and cultural studies, popular music history, music technology, sociology, musicology, and ethnomusicology. Appropriately, my thesis draws on ethnomusicological enquiry, using an ethnographic approach as a primary method to investigate an online music community.

¹⁴ It is because of this assortment of community members that I refer to synthwave artists as ‘creators’.

¹⁵ IASPM – International Association for the Study of Popular Music.

Whilst the 1980s saw a formalisation of analysing popular music (and proposition of appropriate methodologies – such as the work by musicologist Phillip Tagg¹⁶), since the 1990s, popular music scholars have been interested in methods of music consumption by the individual and society, and popular music creative processes. Both of these things have continued to be relevant with advancements in music technology and communication technology. Similarly, with relation to ‘individual characteristics such as identity, biography and personal memories’ (Bennett et al, 2006, p.5), popular music scholars have navigated concepts of the ‘neotribe’ (Bennett, 1999), ‘scene’ (Bennett and Peterson, 2004), music subculture (Hesmondhalgh, 2007), and music community (Glitsos, 2018; Born 2018). These concepts were defined and established in Chapter 1: Context and Chapter 2: Literature Review.

3.1 Ethnography

The primary method of my research is ethnography, a method which originates in anthropology but is applicable to other disciplines such as ethnomusicology. My ethnography encompassed two key facets, virtual ethnography and autoethnography (detailed in Section 3.1.2 and 3.1.3). This section focuses on my use of ethnography in its most traditional application (of interview and concert ethnography) and includes detail of my ethnographic role in the research, which can be characterised as a combination of participant observer and ‘overt full member’ (Bryman, 2012, p.441). A discussion of my ethnographic role is extended to explain my positionality, researcher identity, and researcher access to the online synthwave community. Detail of my ethnographic role and researcher identity is also included in a later section (Section 3.1.2) with specific reference to virtual ethnography.

Ethnomusicologist Nettl described ethnography as two things, ‘doing fieldwork and then rationally organizing and writing about what you found’ (Nettl, 2015, p.248). The concept grew out of ‘the insistence that all domains of a culture are interrelated’ (Nettl, 2015, p.249). Bronislaw Malinowski’s 1922 study *Argonauts of the Western Pacific* is widely considered the first ethnography (Malinowski, 1922), with Merriam’s 1967 study of the Flathead music culture also considered a landmark ethnography (Merriam, 1967; Nettl, 2015, p.252). Ethnography is defined as ‘the study of music in culture [...] with the use of fieldwork’ (Nettl, 2015, p.16), and coined as ‘thick description’ by sociologist and anthropologist Clifford Geertz (Geertz, 1973, p.10). Geertz described the role of the ethnographer, which involves: ‘establishing rapport, selecting informants, transcribing texts’

¹⁶ *Analysing Popular Music: Theory, Method and Practice* (1982) by Philip Tagg.

(p.6), and 'observing rituals, eliciting kin terms [and] writing [a] journal' (p.10). The ethnographer is embroiled in interpreting the webs of culture and faced with 'a multiplicity of complex conceptual structures' (Geertz, 1973, p.10).

Sociologist Karen O'Reilly described ethnography as 'involving direct and sustained contact with human agents within the context of their daily lives (and cultures); watching what happens, listening to what is said, asking questions, and producing a richly written account [...] that acknowledges [...] the researcher's own role' (O'Reilly, 2005, p.3). For example, for her own research of British and Northern European migrants in Spain, O'Reilly spent time in a bar to access 'a group of women whose husbands were all in prison' (p.88). She knew they met in a bar, so she:

'kept going along [...] until they got used to me [her] being there, felt comfortable to say more and more in front of me [her], and then finally they let me [her] join them. They knew I [she] was doing research' (O'Reilly, 2000a, in O'Reilly, 2005, p.88).

O'Reilly acknowledged here how access to her participants was not something done once but continually negotiated, an important factor of ethnography. Her sustained timeframe (a year) bears similarities to my research, which took place over a 5-year and 6-month period (September 2017-March 2023), with the first year considered purely observatory and the remaining time characterised as a combination of participant observation and overt full member (Bryman, 2012, p.441).

O'Reilly described her 'main [data collection] method of ethnography' as 'participant observation' (O'Reilly, 2005, p.84), asserting how it is 'important for the ethnographer to become part of the natural surroundings of the setting' (O'Reilly, 2005, p.13). O'Reilly explained how the ethnographer 'should participate to the extent that people get used to your presence and start to act naturally around you, but also so that you can then learn from the experience' (O'Reilly, 2005, p.96). Research methods scholar Bryman explained the activities of the participant observer, who 'immerses [themselves] in a group for an extended period of time, observing behaviour, listening to what is said in conversations [...] and asking questions' (Bryman, 2008, p.402). O'Reilly's experience at the bar mentioned previously is an example of overt participant observation, given that: 'overt research is conducted openly, with the researcher's identity being known to all participants' (O'Reilly, 2005, p.60).

My research of the online synthwave community is a combination of overt participant observation and full member (Bryman, 2012, p.441), and my identity was known throughout the course of the study. Of researcher identity, O'Reilly highlighted issues that can impact access to the ethnographic field for the participant observer, such as 'personal attributes; your age, sex, colour or even social class' (O'Reilly, 2005, pp.85-86). Also relevant of

access is a researcher's position as emic or etic, terms which have been used widely since the 1970s to characterise the 'insider-outsider continuum' of ethnographic fieldwork (Nettl, 2015, p.265). My position as a participant observer is notable of my concert ethnographies and email interviews, the latter which employed a snowball sampling technique. My virtual ethnography (and by extension, autoethnography, discussed shortly) adhered more to 'overt full member', in a similar capacity to that of Hodkinson's study on 'goths and their culture and lifestyle' (Bryman, 2012, p.441). Hodkinson's methodological approach bears similarities to the present research, in that he was an 'insider' to the goth scene and utilised a 'multi-method ethnographic approach, which included participant observation, in-depth interviews, media analysis [and] questionnaire' (Hodkinson, 2002, pp.4-5, in Bryman, 2012, p.144). Whilst not a study conducted entirely on the internet, Hodkinson's study did include 'participation on internet discussion groups and other goth internet facilities widened the scope of [the] research' (Hodkinson, 2002, pp.4-5, in Bryman, 2012, p.144). His assessment of the goth 'scene' is conceptually similar to my study of synthwave's genre formation on the internet. Hodkinson's position as a self-identified goth is also notable of his study, and comparable to my own position as a composer, performer and producer of synth-based music, which afforded me continued access to the online synthwave community. My positionality was key to the present research, to fully engage with the creative processes of creating synthwave music in tandem with studying the ecosystem of the online community.

As explained in Chapter 1, the period of time characterised as my MA year (September 2017-August 2018) is considered purely observatory and at this time I acted only as an internet user reading content about the community (a 'lurker' Hine, 2000). In September 2018, I became a participant observer of the community and began to interact with members online (termed as virtual ethnography, discussed in Section 3.1.2). This included contacting synthwave artists directly via channels within the online community (e.g. through email addresses on artists' Bandcamp pages or public webpages, or through direct message or public Tweet on artists' Twitter accounts, etc.) to explain my position as a researcher and invite them to interview.

3.1.1 Email Interviews & Concert Ethnographies

After a month (September 2018) of reaching out to synthwave artists via online spaces, in November 2018 I began conducting email interviews with those who had responded. Throughout my study, a total of 70 interviews were conducted over the course of the research, with a snowball sampling technique used. Due to the nature of my virtual ethnography (discussed shortly) I chose to utilise email interviews. Wood outlined some of the tools that the internet offers the fieldwork researcher, one being the textual format. Email

interviews for example, have time advantages: 'respondents can answer questions at a time convenient to them, and can take as much time as they wish to formulate answers' (Wood, 2008, p.180). Though they lack the 'performative aspect of face-to-face encounter[s]', the 'internet allows space for [interviewee] reflection' (Wood, 2008, p.181). Hine recognised how 'interviews are [...] a powerful tool for an ethnographer', useful also in that they 'contextualize and question autoethnographic insights' (Hine, 2020, p.115). For the present research, email interviews were conducted as an extension of fieldwork, with participants sourced through their engaging with synthwave. Significantly, when given the option for a video conferencing interview or email interview, many opted for, and remarked the luxury of, being able to contemplate their responses via a word document of questions. This had the added advantage for the author of eradicating interview transcription. Equally, 'the opportunity for fieldwork to begin at the [researcher's] desk' (Wood, 2008, p.181) was considered a huge advantage to the research, with logistical access to the field available via any internet accessible device.¹⁷

Two concert ethnographies took place during the course of my thesis, one in November 2019 and one in February 2020. These were chosen to observe live practices of synthwave, including modes of musical performance by synthwave artists, the translation of style parameters in a live setting, and manifestations of synthwave subcultural capital. Chapter 8 documents the findings of these observations, through two concert ethnographies, written in the form of first-person narratives. Concert ethnographies are considered traditional examples of fieldwork within an ethnography, and ethnomusicologist Nettl explained how they are a means through which to understand concepts in a 'complex society' (Nettl, 2015, p.20). He explained how in attending a concert (or 'record store [or] cocktail [party]'):

'you could discover definitions of important concepts [of a complex society] in at least three ways [...] by asking the society's own "expert" [...], by asking members from various parts of the society, in order to determine whether there is a consensus, [and] by observing what people do and listening to what they say to each other' (Nettl, 2015, p.20).

For my purposes, use of live concert ethnographies sought to extend my virtual ethnography, to assess how the virtual and the real intersect. In other words, I sought to understand how, and if, the online music community functioned outside of the internet. With

¹⁷ This was advantageous when the global pandemic of COVID-19 began in March 2020. Due to the nature of virtual ethnography, my research was largely uninterrupted.

reference to Nettl's description above, my main activities at the two synthwave concerts I attended were to observe the band performing onstage (as an audience member), as well as to observe the audience's actions and reactions as they watched the band performing onstage.

3.1.2 Virtual Ethnography

Whilst my methodological approach is clearly rooted in ethnography, it is important to highlight that a large portion of this involved virtual ethnography, different in nature to more traditional ethnographies and hence expanding the definition of the ethnographic field. Ethnomusicologist Nettl frames the field as a location where research is undertaken, e.g. 'in a society or culture or subculture' (Nettl, 2015, p.9). A key difference between traditional ethnography and virtual ethnography is that of location. Where traditional ethnography may take place in a formal setting e.g. a music concert, or a bar (O'Reilly, 2005), virtual ethnography takes place on the internet. Nettl recognised how the concept of the ethnographic field has gradually expanded with the rise of digital communications and the internet, in how 'fieldwork has transcended from historically face-to-face' (Nettl, 2015, p.17).

Prominent names for online ethnography include virtual ethnography (Hine, 1994; later 'ethnography for the internet' Hine, 2020), digital ethnography (Hyorth et al, 2017) and netnography (Kozinets, 2020). My approach reflects mostly sociologist Hine's virtual ethnography/ethnography for the internet (Hine, 1994/Hine 2020) and business scholar Kozinets' netnography (Kozinets, 2020). Notable of Hine's work is how computer-mediated communications 'contribute to the cultural milieu' (Hine, 2020, p.4), while Kozinets' focus on identities and practices by members of online communities is also relevant (Caliandro, 2015, p.663), given the focus of the present research on online music community synthwave. My approach is less reflective of digital ethnography, which places a broader focus upon the 'digital public' (e.g. the holistic social networks of Facebook or Twitter) rather than a cohesive online community or group (Caliandro, 2015, p.668).

My methodology adopts the terms virtual ethnography or virtual fieldwork, skewing towards Hine largely because Kozinets' netnography has 'particular procedures as a nexus of netnographic praxis' (Kozinets, 2020, p.133), not all of which I follow, nor with any great commitment to his distinct terms or framework. I, nonetheless, consider both Hine and Kozinets' respective 2020 texts useful in situating elements of my methodology, and as such draw from these where applicable. I resonated particularly with Hine's 'adaptive' and 'holistic' approach to ethnography, embracing an 'openness to unanticipated aspects of meaning-making' which expected 'multiplicity' (Hine, 2020, pp.87-88). With this, I share Hine's position that the internet as an ethnographic site which is 'device dependent, culturally

embedded, constantly developing, and consists of multiple platforms' (Hine, 2020, p.87). Such factors entail the ethnographer 'exploring connections [...] as they emerge' (Hine, 2020, p.87). With the present research focusing on the ecosystem of the online synthwave community and its genre formation, this is apt in characterising my data collection approach (details shortly).

Seminal work of virtual ethnography was undertaken by Hine in 1994,¹⁸ who believed that traditional ethnography ignored aspects of technological culture (Hine, 1994, p.2). She highlighted some of the main considerations of virtual ethnography: of locating the 'field', of navigating online user identities (Hine, 2000, pp.8-9), of ethical considerations (Hine, 2000, p.23) and how boundaries of the 'virtual' (online) and the 'real' (offline) intersect (Hine, 2000, pp.8-9). Virtual ethnography is characterised by Hine as the 'transferral of ethnographic tradition [...] to the social spaces of the Internet' (Hine, 2008, p.257). Her updated term 'ethnography for the internet' (Hine, 2020) maintained that ethnographic strategies 'can help us to illuminate the contemporary social arrangements that arise in and around the Internet' (Hine, 2020, p.2). These definitions support my use of virtual ethnography to study the ecosystem of the online synthwave community.

The field of study for this thesis encompassed a range of websites and social media sites, and as such the term 'data sites' (as suggested by Kozinets, 2020, p.246) is more appropriate. Data sites included Reddit, Twitter, YouTube, Facebook, Spotify and a variety of distinct web domains (such as those discussed later in Chapter 4). The collective sum of my data sites is referred to throughout the thesis as the online synthwave community. Data was primarily collected via field notes (Kozinets, 2020, p.74), which largely took the form of asynchronous screenshots (some dating back to 2013, but most dating from 2015-2022) which noted interactions by the online synthwave community. Some textual data (such as blog articles or website text) was captured through copy and pasting (to essentially create textual copies of content from 'live' links). This data was stored on my private password-protected laptop for research purposes only. This was done to avoid losing access to relevant data and proved apt when websites such as IronSkullet.com or blogs by Solaris were removed before the thesis' completion. As data amassed, it was gradually and continually thematically organised before key discourses were identified and analysed. This approach was important to examine the boundaries of the online synthwave community's ecosystem (inclusive of musical style, creative processes and genre formation). By considering data less statically, more fluidly and more dependent on emergent context, data additively served as constituent components of a bigger picture. This approach also

¹⁸ Hine's conference paper on virtual ethnography (1994) is accessible from: <https://pcst.co/archive/pdf/Hine_PCST1994.pdf>. Her text *Virtual Ethnography* was published in 2000.

supported the extended timeframe of my study, five years and 6 months. If explained metaphorically, collecting my data was not unlike creating a detective's pin murder board, where new data formed new links and new links lead to richer findings. The extended timeframe of my study is meaningful in ethnography, in that it indicates a researcher has been 'exposed to a wide range of issues of significance in participants' lives' (Hine, 2020, p.55).

It is useful to reaffirm my position as participant observer and full member here, in the context of virtual ethnography. Research methods scholar Bryman explained the activities of the participant observer, who 'immerses [themselves] in a group for an extended period of time, observing behaviour, listening to what is said in conversations [...] and asking questions' (Bryman, 2008, p.402). Whilst 'listening' to conversations took a different form with my virtual ethnography, Bryman's definition captures what my ethnography entailed. Instead of 'listening' to conversations, I observed textual, image and media communications through social media sites (such as Reddit, Twitter, YouTube and Facebook) and websites or blogs, which Kozinets would characterise as 'online traces' (Kozinets, 2020, p.16). Online traces included (but were not limited to) Reddit 'threads', Facebook posts and comments, Twitter statuses and comments, YouTube videos and comments. Online traces were not only written words but included digital artefacts such as memes, images, songs, videos and more. As a participant observer and full member, I too posted about synthwave through social media in the community to allow for 'emerging themes and interpretations to be discussed with participants and for hunches and predictions to be tested out' (Kozinets, 2020, p.55) (see examples later in Chapters 4, 6, 7, 8). My interactions included sharing with the community digital artefacts of my own, such as compositions, performances, images and music playlists. Such digital artefacts are considered my autoethnography.

3.1.3 Autoethnography

My ethnography encompassed also an autoethnographic component, to 'offer insights about issues and contexts that other research methods [were] unable to access' (Adams et al, 2022, p.4). For my purposes, contexts here refer to specific scenarios relevant to members of the online synthwave community, such as song writing and production practices. As such, my use of autoethnography explores the *experience* of being a creator (here composer, songwriter, performer) in the online synthwave community. It is for this reason that I extend my identification as participant observer to 'overt full member' (Bryman, 2012, p.441).

With my autoethnography, I had the opportunity to note tensions and negotiations with synthwave creative processes, engaging with community activities and practices first-hand (such as submitting my songs to synthwave playlists). Hine supported how 'an

autoethnographic perspective allows the very individualized nature of engagement with a reality' (Hine, 2020, p.84), where the autoethnographer can experience 'where pressures to conform come from and how they are mediated' (Hine, 2020, p.83). Pressures noted with the present research included conforming to, or negotiating with, expectations of style parameters of synthwave. My position as autoethnographer also enabled me to experience 'opportunities and restrictions' (Hine, 2020, p.83) within the community, for example of the purchasing of plug-ins or virtual synthesizer libraries. Whilst I was fortunate enough to be granted £400 by the Royal Music Association to purchase one very popular and sought-after (by the community) virtual sound library (the Arturia Collection), I took note that not all creators have access to this. The audio experiments produced as part of my research accompany the written thesis as audio file appendices, as artefacts of my virtual ethnography.

Communication scholars Adams et al state how autoethnographers engage in 'rigorous self-reflection – often referred to as “reflexivity” – in order to identify and interrogate the intersections between self and social life' (Adams et al, 2022, p.4). As a musician, composer, performer (my autoethnography) my representation of the online synthwave community and its ecosystem includes my experience of being a creator *in* it.

My activities as a composer and performer were important to address challenges of the participant observer, mainly of gaining and sustaining access to the online community (Bryman, 2008, p.403). Importantly, my digital artefacts (compositions, performances, images and music playlists) are considered my autoethnography, and in summary, served two purposes. One, to maintain my positionality's credibility (i.e. by being the composer, the performer, etc.) and two, to create artefacts (created by me) which would test theories of my own about the research (particularly of creative processes).

3.1.4 Online Survey

My first year as a participant observer and overt full member (September 2018-August 2019, with September 2017-August 2018 considered an observation year only) was spent interacting with online community members through social media sites such as Twitter, Reddit and Facebook, and conducting email interviews with synthwave artists. Some of this year was also spent writing and releasing synthwave music, considered autoethnography (explained previously in Section 3.1.3). Based on my findings at the end of this time period, during the summer of 2019, I developed and created a survey to be posted to the “general public” of the online community.

Alongside posting my survey in September 2019 (which was posted to various subreddits within the community), I took the opportunity to reaffirm my position in the

community as a researcher. In my post, I disclosed information about myself as a PhD student, composer and researcher of synthwave, along with my student email address. Upon receiving 94 responses, I edited the post to include a link to my personal website¹⁹ (signposting specifically to the page dedicated to my PhD research) and reaffirmed my invitation of receiving questions or contact from anyone regarding my study. I also made clear in this post my online handle name, 'blaisejess' (which is the same across my social medias – e.g. Instagram, Twitter) and 'blaisesummer' on Reddit. This was an ethical decision to support a continued, cohesive and straightforward recognition of my presence and identity as a researcher in the community. Figures 3.1-3.4 demonstrate my initial survey promotion post and interactions. Interactions include comments of support towards my PhD, as well as affirmation from community members through 'upvotes' or 'sharing' my survey post to other areas of the community. The use of Reddit's 'upvotes' (see the red arrow and number 42 in Figure 3.2 [meaning 42 upvotes]) is a means of communication by Reddit users to indicate an agreement with the original poster (commonly shortened to OP on this platform), or otherwise as a statement of positive affirmation.

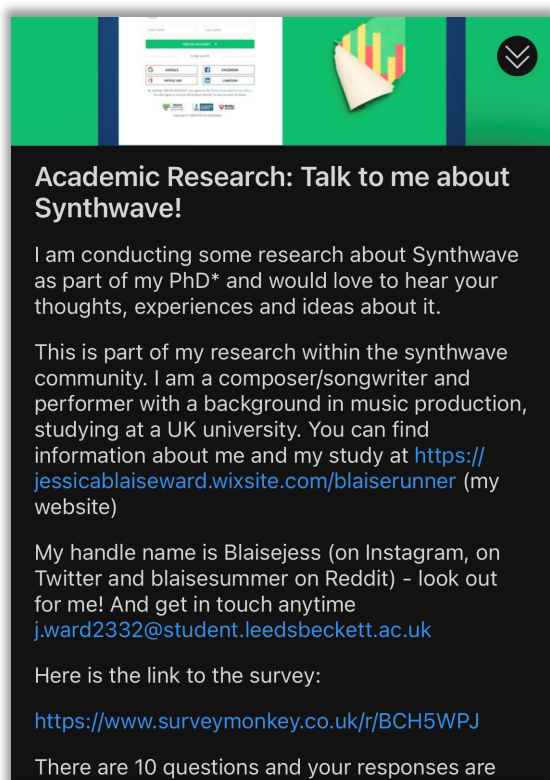


Fig 3.1 (left) [Reddit Screenshot] Promoting my survey (September 2019) and reaffirming myself as a researcher.

Fig 3.2 (right) [Reddit Screenshot] Community members 'sharing' my survey to other areas of the community.

¹⁹ My website is accessible from: <<https://jessicablaiseward.wixsite.com/blaiserunner>>.

My online survey is considered an extension of my virtual ethnography. Social research methodologist Denscombe stated that the principles of surveys have had a 'good effect on mapping out the social world', highlighting that they 'provide a snapshot of how things are' (Denscombe, 2010, p.11). Whilst termed here an online survey, this research strategy may also be considered a web-based questionnaire. Key advantages to this strategy included the lack of travel, venue or specialist equipment required, as well as virtually free costs and instantaneous response (Denscombe, 2010, p.14). My September 2019 survey received 94 responses (with the majority received in the first 48 hours of the survey's publishing). This response rate was aided by the community's support in sharing and promoting the survey, and is a demonstration of how my research was constantly in dialogue with the online synthwave community.

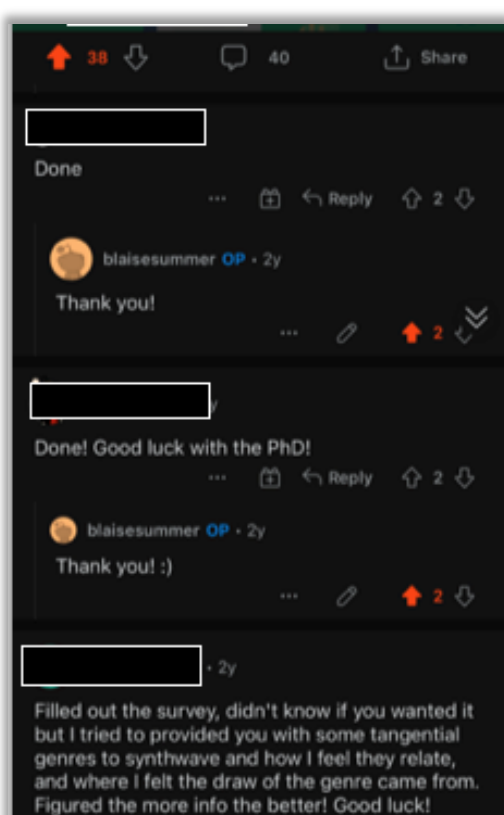


Fig 3.3 (left) and Fig 3.4 (right) [Reddit Screenshots] Responses to the promotion of my September 2019 survey.

As a final point about researcher identity, I permanently (i.e. since becoming a participant observer in September 2018) displayed my credentials as a musician, performer, producer and researcher through my social medias as this research was undertaken. This was done in several ways, for example, through providing a link in my bio on Twitter to my personal website, where information on my PhD can be found, (the fourth tab across in Fig 3.6, below), as well as evidence of my practice as a musician and songwriter (the second and

third tabs in Fig 3.6). I also included the phrase 'PhD SYNTHWAVE' in all of my bios (e.g. Instagram, Twitter, see Fig 3.5 for Twitter example) to make clear my identity as a researcher, with use of block capitals as a deliberate choice. My social media bios also include a link to my artist page on Spotify (see Fig 3.5 for Twitter example) to make my work as an artist visible and easily accessible.



Fig 3.5 [Twitter Screenshot] My Twitter Profile @blaisejess.

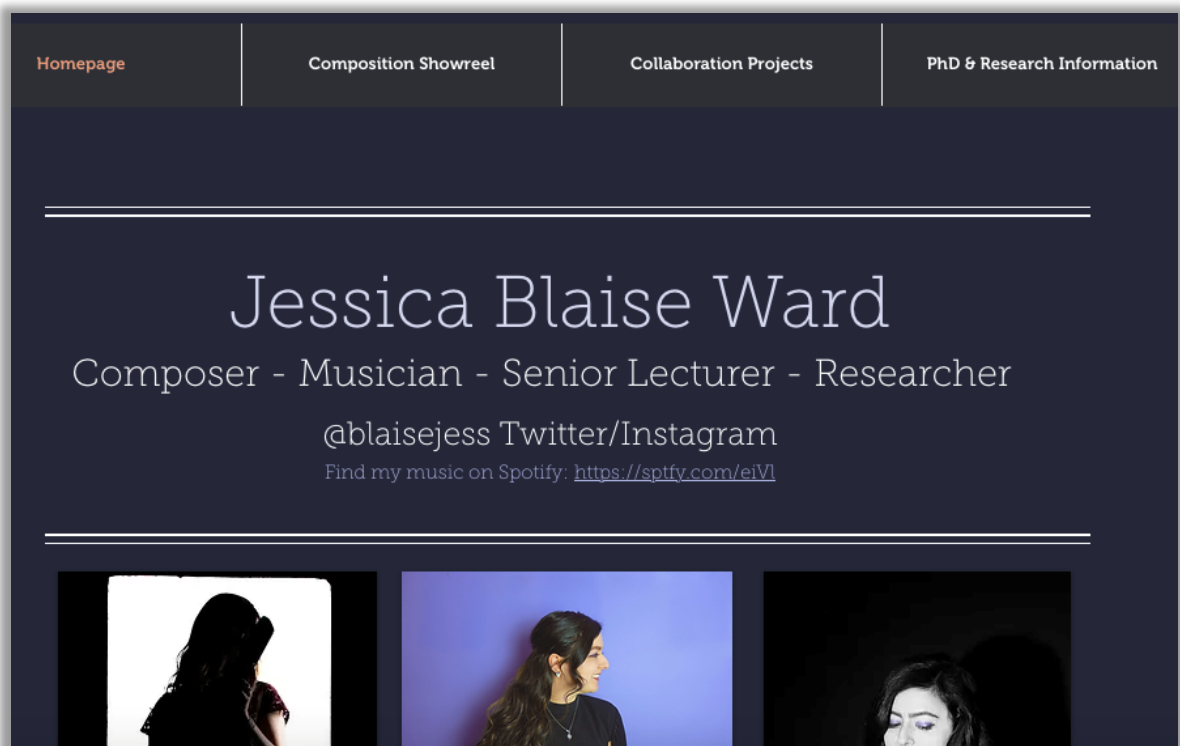


Fig 3.6 My website, PhD & Research Information shown top right.

It is also worth noting that those following me within the synthwave community (via Twitter for example) would be able to see my activities during the time this research took place. The contents of my Twitter showcase my work as a vocalist, synth player and songwriter (e.g.

through providing links to my new single, or sharing work undertaken through musical collaborations) and performer (in 1980s style band The State of Georgia, performing vocals and synth). Such activities support my credibility as a musician and performer and support my sustained access to the community. Before my PhD started, my website had originally been created to demonstrate my profile as a composer and an artist, and to be a permanent point of contact should anyone want to know more about my work. My personal website still acts in this capacity today (to date June 2023) and serves as an online showreel for: my previous work writing to brief in industry, my collaborative work as a musician, and solo work as an artist. Given the position of many synthwave members as creators in some capacity (songwriters, producers, DJs etc), I believe that my online portfolio clearly demonstrates my credentials in this vein, which supported my access to the community. When I began my PhD (September 2018), I created a new section on my website especially designed for my research, and included clear contact details for anyone wanting to ask questions about it.

3.1.5 Style Parameter Analysis

Part of my virtual ethnography encompassed also tracing synthwave style parameters. The identifying of synthwave style parameters took place through a cyclical process of immersing myself in the field, identifying key popular synthwave artists, playlists, songs, and then conducting music analysis of a sample of these. Analysis songs were sourced from sites such as Spotify, YouTube or Bandcamp. With an initial sample of around 30 synthwave tracks (which expanded significantly over the course of my ethnography), I began to sketch common style parameters, cross referencing these with community resources such as YouTube synthwave tutorials and subreddit discussions.

For my analysis, I chose to focus on compositions for their 'sonic dimensions' (Butler, 2014, p.15) as opposed to adopting a wholly traditional musical analysis. Whilst I did not discount elements of traditional music analysis (of harmony, melody, arrangement and lyrics) in my assessments, I gave focus to the role of music production and technology in synthwave songs. This took influence from Samantha Bennett's *tech-processual* analytical methodology, which 'examine[s] the contribution made by technology and process to the overall aesthetic of the recording [...] situated in their wider musical genre and aesthetic contexts' (Bennett, 2018, p.134-135). With the present research, the musical genre was synthwave, and aesthetic context the online community. Bennett is a popular music studies scholar, with research interests in sound recording and music technology. She authored *Modern Records, Maverick Records* (2018) and is the co-editor to *Critical Approaches to the Production of Music and Sound* (2018). Her work addresses the importance of sound and music technologies on popular musical recordings, from 'recordist agency' to the

affordances of production technologies (Bennett, 2018, p.133). Her approach is apt for the present research in terms of examining synthwave's creative process, situated within the context of the online community.

With music analysis, I was able to confirm some of my theories about synthwave style parameters (deduced from virtual ethnography). For example, engagements with music technology were prominent in my findings of style parameters, and patterns emerged about which plug-ins or virtual synthesizer libraries were most desirable for synthwave timbres. With the results of my music analysis, I began autoethnographic compositions, to access further findings about *being* a creator in the online synthwave community. This component of the research leaned heavily on the participant in participant-observer, and is considered autoethnographic in nature.

To summarise and clarify a chronological timeline of my thesis' methodology, please see below:

- September 2017-August 2018: Characterised as my "MA Year", I acted as an observer or 'lurker' (Hine, 2000) of the online synthwave community. During this year I wrote synthwave-style song 'Strangers in the Dark', but it wasn't released until 2019.
- September 2018-August 2019: My first year as participant observer and overt full member (Bryman, 2012, p.441). Artist email interviews took place this year (most of this data appears in Chapter 4), and I wrote some synthwave-styled works such as 'Killing Dreams' (written and released in 2019, see Chapter 7 for more on this composition), 'Drift' (2019) (see Chapter 5 for more on this composition) and 'Futures Promise' (which wasn't actually released until 2021 – the song is discussed in Chapter 7). In February 2019, I collaborated with my producer Jan Hajsén on a remix of GUNSHIP's 'The Drone Racing League', which was never formally released. I also collaborated with Brook Downton on a synthwave project known as *Superterranea* (2019) (discussed in Chapter 7).
- September 2019-March 2023: My remaining years as participant observer and overt full member (Bryman, 2012, p.441). My survey was published in 2019. Further artist interviews took place with darksynth and popwave artists (see Chapters 6 and 7 respectively), and I collaborated with The Ocean Beneath for a synthwave song called 'Fluorescent Light' (2022) (detailed in Chapter 7). I attended two synthwave concerts (see Chapter 8).

Virtual ethnography and style parameter analysis via song analyses, took place continuously from September 2018-March 2023.

3.2 Ethical Considerations

Adams et al described the importance of conducting autoethnography ethically, and especially of consent in the autoethnographer's representation of people in their accounts (Adams et al, 2022, p.102-103). Significant examples of those present in my autoethnographic accounts of this thesis include my producer Jan, friend Joe and collaborator The Ocean Beneath (whom appear in my narratives of creative process throughout the thesis). In line with Adams et al's ethical recommendations that 'individuals are given a chance to read and comment on stories in which they appear' (Adams et al, 2022, p.107), all aforementioned individuals were consulted about and approved their parts in my autoethnography. This was achieved through my sending them drafts (via email) of written narratives in which they appeared. Of my ethnographic approach more broadly, my research of the online synthwave community took place in dialogue with its members, and their voices are represented throughout the thesis in a polyvocal strategy of narrative (expanded upon shortly). Immediate examples of my polyvocal strategy are evident by screenshots in Section 3.1.

My ethnography took account of ethical practices in research, and particularly of user identities as outlined by Hine (2000, pp.8-9). Kozinets' outlining of 'the consent gap' was also useful in assuring that I had taken due ethical considerations for an ethnography on the internet. Kozinets defined how 'social interactions [online] [...] become human subjects research [...] the moment that a real person could be identified' (Kozinets, 2020, p.176). He also defined the difference between public and private websites: 'A private site requires registration and a log on with a password in order to access information. A public site, in contrast, is open to any browser, and does not require registration and a log on with a password' (Kozinets, 2020, p.197). As such, many blogs or forums (such as YouTube or Reddit) are public sites.

Reddit in particular, afforded instant anonymity to my participants, given that pseudonym usernames are utilised for this website. Despite this, I chose to redact usernames out of Reddit screenshots to give absolute courtesy to those operating in these spaces. Whilst I am aware that these spaces are technically public forums, Garcia et al observed how many people view public community web-spaces as nonetheless 'private' (Garcia et al, 2009, p.74). Equally, whilst I had made my (real) identity absolutely overt through my communications, social medias and personal website (researchers using their real identities is advised by Kozinets [2020, p.206]), I could not guarantee that every member of the online synthwave community had seen these communications. As such, and to avoid all doubt, I employed a level of 'cloaking' (as described by Kozinets, 2020) whereby 'all online pseudonyms, actual names, and other means of identifying people' were removed

or 'altered beyond recognition' (Kozinets, 2020, p.400). There were a few minor exceptions where individuals either deliberately made themselves known in their (public) communications (e.g. The Encounter aka Nigel on Reddit, Ste Ingham on YouTube, John Carpenter on Twitter, various AMA [Ask Me Anything] posts on Reddit by synthwave artists) and/or were considered key figures who ought to be credited for their work within the community. For those not falling into these categories, where possible I altered or rephrased verbatim quotes (without changing their meanings), so that they could not be linked back to the original post (called 'backtracing' by Kozinets, 2020, p.400). When not possible (i.e. If quotes or screenshots were necessary), I cloaked some of the referencing information e.g. (Anon, Anon Group, 2017), or (Anon, Reddit, 2019) or (Anon, Twitter, 12.2019), rather than specifying all information i.e. exact date, month, year and online group name or social media type.

Although I kept records of the exact subreddits, names of groups and various online spaces where my virtual ethnography took place, I have not named these exact spaces in my thesis, at most naming them (Anon, Platform, Month-Year), e.g. (Anon, Twitter, 12.2019). For one particular private Facebook Group, I obtained moderator permission to gather data, as advised by Kozinets: 'the researcher must explicitly ask for and gain permission in writing from any moderators or relevant administrators of the group to gather data' (Kozinets, 2020, p.199). This was in addition to anonymising all identifying information to those in the group.

3.3 Types of Data & Individuals of the Ethnography

My use of email interviews, surveys, and participant observation represent a mixture of virtual and digital methods. Caliandro recalls the differences between virtual and digital methods, in that 'virtual methods adapt methodological strategies developed offline to online environments', where digital methods 'take the nature and affordances of the digital environment seriously [e.g. recognising] [...] functions like Instagram's tags or Twitter's retweets, [which] structure flows of information and communication' (Caliandro, 2015, p.667 in Denny et al). Examples of virtual methods include those which were originally non-virtual – a survey becomes a web survey, an interview an email interview. Digital methods were more apparent in my virtual ethnography, where 'online traces' (explained previously in Section 3.1.2) (Kozinets, 2020, p.16) were assessed with relation to interactions by the online synthwave community. All of the research for my thesis (inclusive of my virtual ethnography, interviews, concert ethnographies and surveys) was granted full ethical approval by the Leeds Beckett Research Ethics Policy, and all data was stored on a password protected laptop.

Ethnomusicologists Rice and Ruskin describe four types of individuals who appear in ethnomusicological inquiry, listing: innovators, key figures, average musicians and non-musicians (Rice & Ruskin, 2012, p.304). The ‘innovators’, ‘tend to [a] play prominent [role]’ and make hallmark contributions to the history of a genre (Rice & Ruskin, 2012, pp.304-305). ‘Key figures’ ‘play a crucial musical role in the culture – such as being extremely popular, occupying an important position, or being an outstanding representative of the style’ (Rice & Ruskin, 2012, p.305). ‘Average musicians’ are ‘ordinary musicians’ who are an ‘important part of every musical tradition’ (Rice & Ruskin, 2012, p.306). ‘Nonmusicians’ are essentially the audience, though Rice and Ruskin maintain that they ‘deserve to be studied as seriously as performers and composers are’ (Rice & Ruskin, 2012, p.306). Email interviews targeted ‘innovators’ ‘key figures’ and some ‘average musicians’, while online surveys targeted ‘nonmusicians’, to consider members’ perceptions and characterisations of synthwave the genre and its artists. Virtual ethnography noted a variety of all types of individuals. With this diversity of individuals present in the sampling, my ethnography holistically adopted an approach of ‘polyvocality’ as a narrative strategy (Rice & Ruskin, 2012 p.314), which aligns with my epistemological position of interpretivism and ontology of multiple realities. What is important is that my research of the online synthwave community took place *in dialogue* with its members.

Methodology Conclusion

Ethnomusicologist Wood emphasised the potential and significance of researching internet-based music activities, in their having a ‘direct effect on the offline musical world’ (Wood in Stobart, 2008, p.177). This is applicable to synthwave which, whilst having evolved through an online community has, since the mid-2010s received attention outside of the community via key media synchronisations. Only use of virtual ethnography could trace this progression, charting how synthwave grew online. Wood’s comment is also relevant to my decision to include two offline concert ethnographies of synthwave artists. Concert ethnographies also functioned to support my investigations of synthwave’s genre formation, to view or realise ‘how boundaries of the “virtual” (online) and the “real” (offline) intersect (Hine, 2000, pp.8-9).

My ethnographic study of the online synthwave community (which totalled 5-years and 6-months) considers ethnography (and in turn, virtual ethnography) as the main overarching method. Within this, I conducted email interviews, one online survey and two concert ethnographies, adopting a polyvocal narrative strategy to represent the findings. Methodological approaches in virtual ethnography reflect mainly Hine (2020) and Kozinets (2020), with particular considerations of data sites, (internet) user identities, ethics of online

research and intersections with offline activities. Autoethnographic components of the research reflect my position as a creator within the online synthwave community, in reference to my position as a musician, composer and performer. My ethnographic role is considered a combination of participant observer and full member, with an emic viewpoint to the research.

Chapter 4: Defining the Synthwave Community of the 21st Century

This chapter provides a historical overview of the online synthwave community. It presents findings from my virtual ethnography, including email interviews and one survey, as well as reporting on two 'key figures' (Rice and Ruskin, 2012) within the community – Rick Shithouse and Preston Cram. The chapter explores theoretical concepts of subcultural theory and subcultural capital (Bourdieu, 1986; Thornton, 1995; Jensen, 2018), particularly in reference to music communities online (Born, 2018; Glitsos, 2018) and genre formation (Hesmondhalgh, 2005; Holt, 2007).

In an examination of the online synthwave community of the 21st century, this chapter evaluates the cultural beginnings of synthwave; highlighting who, what, where, how and why this genre was formed. Specifically, I examine the community space online, including their activities, values and practices. In doing so, I assess tensions and negotiations of synthwave subcultural capital, with relevance to its genre formation and the community's collective identity. This chapter foregrounds (and in some ways, serves as a pairing to) Chapter 5: Synthwave Creative Processes, which details music practices in creating the synthwave style. The present chapter also serves as a theoretical foundation for all later chapters, which explore specific elements of, and negotiations within, the online synthwave ecosystem.

The present chapter is structured into three parts: firstly, I depict synthwave's chronological development (and common narratives), outlining key milestones. This includes 'key figure' (Rice and Ruskin, 2012) Rick Shithouse, synthwave's musical parentage and subgenre deviations, and synthwave's community practices and community language. Secondly, I present the data from my online survey, revealing aspects of synthwave subcultural capital. Thirdly, I present an online case study of 'key figure' (Rice and Ruskin, 2012) Preston Cram aka Iron Skullet, using him as a lens through which to view synthwave community identity and ideologies.

4.1 The History and Development of Synthwave

Common narratives of synthwave suggest that its musical beginnings originated in the early to mid 2000s. Interviewees commented how 'French House' (Kyle Braunch, 2019), 'French Touch' (Mike Langlie, 2019; LeBrock, 2019), 'electro' (Futurecop!, 2019) and 'electronic dance music' (Miles Matrix, 2020) are formative to the synthwave style. One record label, 'Banger Records' (who Daft Punk were signed to) as well as a number of key artists: Kavinsky, The Valerie Collective (Anoraak, College, Minitel Rose, Electric Youth) were also

suggested as central to the synthwave style in its infancy (ZR, 2019; Kyle Braunch, 2019; Futurecop!, 2019). Other key influences on synthwave were described as 1980s synthpop (Vincenzo Salvia, 2018; Anon 7, 2019) and 1970s and 1980s soundtrack music such as the work of John Carpenter [the *Halloween* franchise] and Vangelis [*Bladerunner* 1982] (Mike Langlie, 2019; Anon 6, 2019). The creator of the term, 'synthwave', was credited to Rick Shithouse by synthwave artist Sunglasses Kid (Edward Gamper, 2019). The former was the blog owner of 'Synthetix FM', a music blog active in the early 2010s.²⁰ The significance of Synthetix FM was affirmed by several synthwave artists that I interviewed, with Sunglasses Kid crediting it as the 'only blog on synthwave' at the time (Edward Gamper, 2019).



Synthetix FM was at that time operated by independent music reviewer (handle name) Rick Shithouse (hereafter abbreviated to RS). RS explained when interviewed that his intentions during that time were to showcase '[19]80s-inspired synth releases' by independent music producers (RS, 2019). He also characterised his affinity for such music: 'I'm in my late 40s now [2019] and was a huge fan of [19]80s synth-based music in the [19]80s. [I] found this new revival of [19]80s sounds really engaging' (RS, 2019). From RS's comments, it is clear that the synthesizer was at the heart of synthwave from the beginning, with the term '[19]80s synth-based music' being RS's preferred name for the style. RS felt that 'the music [was] way too diverse for one genre title' (RS, 2019). However, on the turn of the 2010s decade, a variety of artists began hashtagging their music on Youtube, Soundcloud and MySpace as '#synthwave'. RS was keen to distinguish this engagement with synthwave was on a much smaller scale (online community-wise) than it is now [refers to 2019]: 'there was no scene at this stage, in the sense of an active community online and certainly not in real life' (RS, 2019). Whilst his Synthetix blog is still live, RS declared via blog post in 2018 that Synthetix FM would no longer be updated.

²⁰ Access Synthetix FM here: <<http://synthetixmusic.blogspot.com/2018/01/the-end-of-synthetixfm.html>>.

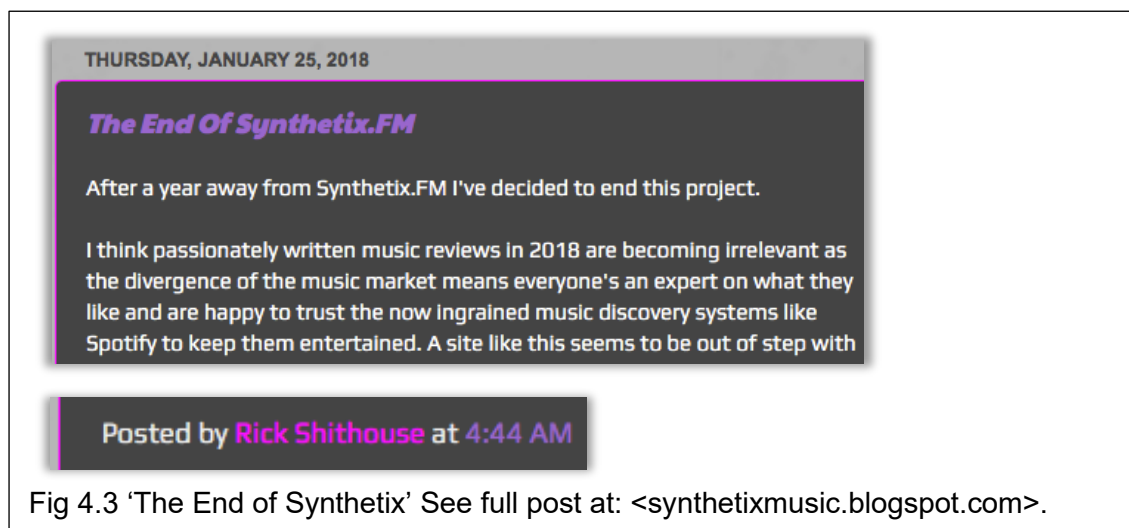


Fig 4.3 'The End of Synthetix' See full post at: <synthetixmusic.blogspot.com>.

According to all interviewees with few exceptions, synthwave's largest milestone occurred in 2011 with action-drama movie *Drive* (2011), with many crediting its accompanying soundtrack as the birth or popularising of synthwave (an 'innovator' – Rice and Ruskin, 2012).

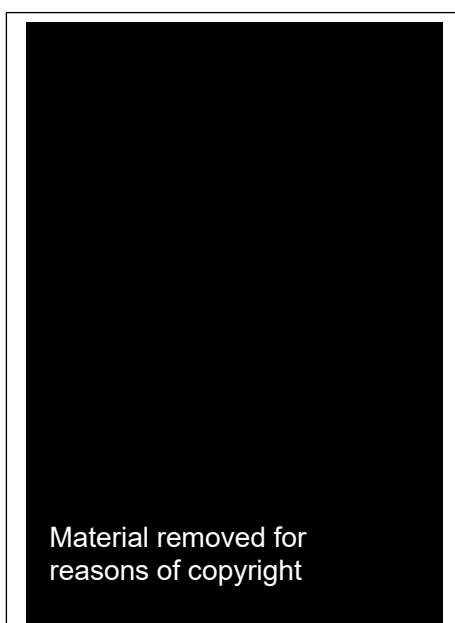


Fig 4.4 Movie Poster *Drive* (2011).

Movie 'Drive' really got me into the genre.

Fig 4.5 [Reddit Screenshot] A Reddit comment about *Drive* (2011) (Anon, Reddit, 2018).

I started off by watching Drive. I loved the movie,

Fig 4.6 [Reddit Screenshot] A Reddit comment about *Drive* (2011) (Anon, Reddit, 2018).

Drive, The Synthwave movie

Fig 4.7 [Twitter Screenshot] A Tweet about *Drive* (2011) (Anon, Twitter, 2017).

11 years ago today #Drive 🎬 was released. One of the best opening scene 🎵.... and song 🎵 by @kavinsky
#synthwave #drive #retrowave

Fig 4.8 [Twitter Screenshot] A Tweet about *Drive* (2011) (Anon, Twitter, 2022).

a.k.a. the movie that got everyone into "outrun" culture and synthwave music.

(I'm just being snarky. It's a great movie.)

Fig 4.9 [Reddit Screenshot] A Reddit comment about *Drive* (2011) (Anon, Reddit, 2018).

This increased synthwave's accessibility in terms of both creators and listeners. Subsequently, by 2013, a markedly increased number of internet users were engaging with synthwave playlists and forums or discussion groups, hosted by social media sites such as

Reddit, Facebook, Soundcloud, Spotify and Bandcamp. Around this time, one particular synthwave playlist ‘Synthwave / Retro Electro’, was gaining significant traction; and its creator developed a name for himself in what many were now terming ‘the synthwave community’. The playlist belonged to a metal music reviewer, Preston Cram, who took the online handle name of Iron Skullet. Cram reflected in interview with me his playlist’s progression:

‘I started creating synthwave-related playlists on Spotify in late 2012 and created my Synthwave / Retro Electro playlist in early 2013. My Synthwave / Retro Electro playlist began picking up new followers pretty quickly and got its first big surge around 2015’ (PC, 2019).

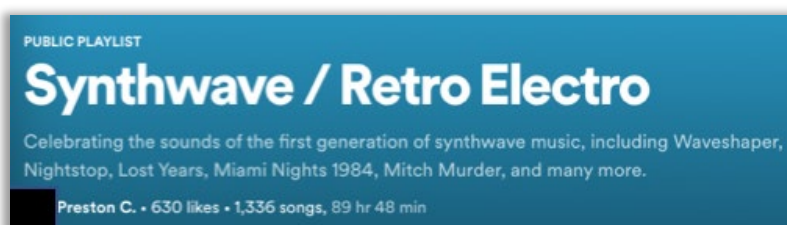


Fig 4.10 [Spotify Screenshot] Cram’s Spotify Playlist ‘Synthwave / Retro Electro’ (Screenshot taken 05.2022).

The choices of songs and artists on playlists such as Cram’s led many members of the community to question the musical parameters of synthwave. These discussions were present across many synthwave online forums or groups. Towards the end of the 2010s, articles were published by several blog owners within the community, including: ‘What is Synthwave?’ (Cram, 2018a)²¹, ‘Everything about Synthwave’ (Solaris, 2018)²² and ‘Synthwave Styles’ (Freewave, 2018)²³. As well as defining core musical traits of synthwave and including example artists of the style, this discourse also moved towards the idea of synthwave subgenres (see Table 4.1), which Cram reasoned was the result of ‘an enormous influx of creators [having entered the community] with different influences and backgrounds’ (Cram, 2018b) since 2015.

Access here: <http://synthwavestyles.blogspot.com/2018/04/freewave.html>

Material removed for reasons of copyright

Fig 4.11 Screenshots (taken 05.2022) from Freewave’s (2018) Synthwave website.

²¹ Though not its original upload by Cram, this article is accessible from:

<<https://electrozombies.com/magazine/article/what-is-synthwave/>> [Accessed September 2022].

²² Solaris’ article is no longer accessible due to the website being inactive.

²³ Accessible from: <<http://synthwavestyles.blogspot.com>>.

Access here:
<https://electrozombies.com/magazine/article/what-is-synthwave/>

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Fig 4.12 'Synthwave Genre Map' Graphic by Iron Skullet (2018a).

Access here:
<https://electrozombies.com/magazine/article/what-is-synthwave/>

Material removed for reasons of copyright

Fig 4.13 'Synthwave Album Map' Graphic by Iron Skullet (2018a).

Table 4.1: Exemplar Synthwave Subgenres²⁴

Synthwave 'Subgenre'	Musical description	Representative Artists
Outrun (Cram, 2018b) (Solaris, 2018), (Freewave, 2018).	'fast paced racing-themed music influenced by the old <i>OutRun</i> video game from 1986' (Freewave, 2018).	Kavinsky, Mitch Murder, Lazerhawk, Miami Nights 1984 (Cram, 2018b).
Dreamwave (Solaris, 2018), (Cram, 2018b), (Freewave, 2018).	'[...] slow tempos and cinematic sounding tracks' (Freewave, 2018).	Timecop1983, VHS Dreams, Trevor Something (Solaris, 2018).
Darksynth (Solaris, 2018), Cybersynth (Cram, 2018b), Horror Synth, Cyberpunk (Freewave, 2018).	'[...] prominent electric guitar, and energetic rhythms' (Cram, 2018b) 'faster tempos [...] Many in the Darksynth scene have metal backgrounds' (Freewave, 2018).	Perturbator, Carpenter Brut, Mega Drive (Freewave, 2018).
Popwave (Cram, 2018b), Vocal Synthwave (Freewave, 2018).	'A key feature of popwave music is the inclusion of post-millennium vocal styles' (Cram, 2018b).	The Midnight, FM-84, Gunship, NINA, Timecop1983 (Cram, 2018a), Michael Oakley.
Retro Electro (Cram, 2018b), Retrowave (Solaris, 2018).	'[...] pulls the classic hip-hop sound into the present day and infuses it with modern production and the strong melodic sensibilities of the synthwave genre' (Cram, 2018b).	Damokles, Beckett, Digikid84 (Cram, 2018b).
Italo Disco (Solaris, 2018), Nu Disco (Cram, 2018b).	'synthwave-disco... more focused on dancefloors' (Vincenzo Salvia, 2018).	Vincenzo Salvia, Andy Fox (Solaris, 2018).
Cinematic Synthwave (Cram, 2018b).	'[...] nearly indistinguishable from the film scores they emulate' (Cram, 2018b).	Meteor, Crockett, Scandroid (Cram, 2018b).

²⁴ 'Subgenre' refers to a style derived from synthwave, with synthwave understood as the overarching genre. See the end of Chapter 6 (Fig 6.23) for my 'Family Tree' of synthwave.


Sweatwave (Freewave, 2018a).	'upbeat, features heavy use of guitars, often a few vocal samples, and is perfect vintage 80's styled workout music' (Freewave, 2018).	Powerglove, Silverhawk, Starcadian, Vincenzo Salvia, Mitch Murder (Freewave, 2018).
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Table 4.1 illustrates a bias for male artists as representative of synthwave, which Cram, Solaris and Freewave demonstrate in their respective blog articles. Given synthwave's roots in EDM and French House, along with a historical bias of music producers being male (Kearney, 2017, pp.79-80), this is somewhat anticipated. Within the synthwave community overall, representation for women was certainly scarcer in the first half of the 2010s but improved with the advent of popwave in the latter half of the 2010s (explored in Chapter 7). This subgenre is unique in its representation of female and non-binary artists. Despite this, Freewave's 'Vocal Synthwave' (another name for Popwave) picture shows a male artist (Scandroid) (see Fig 4.11). Popwave is the only synthwave subgenre which has vocals by default, with all other subgenres being typically instrumental. It is also important to recognise that some subgenres shown in Table 4.1 are granted more credence by community members (such as outrun, popwave, dreamwave and darksynth) than others. Such subgenres are generally represented by higher profile synthwave artists, which contributes to their associated subgenre's recognisability. Cram agreed the significance of darksynth in particular, publishing an article to his website domain named: 'Why Darksynth deserves its own genre' (Cram, 2018c).²⁵ Furthermore, community members have often remarked on the appeal of darksynth, highlighting its influence of horror film soundtrack and metal music. Perturbator and Carpenter Brut in particular, are often recognised as figureheads of darksynth. This was supported by a number of interviewees (Miles Matrix, 2020; Jordy Leenaerts, 2019; Liam Emsa, 2019), and Liam Emsa described darksynth's cultural links to 1980s horror or occult imagery specifically (Liam Emsa, 2019). A later chapter explores the darksynth subgenre (Chapter 6).

Besides the development of synthwave 'subgenres', another consequence of the increased number of synthwave community members since *Drive* (2011) was a DIY music culture that formed towards the mid-2010s. DIY here refers to a 'cultural practice [...] driven by motives of creative and aesthetic gratification' (Bennett & Guerra, 2018, pp.9-10) which here resituates the ontology of the 'amateur' (Kaitajarvi-Tiekso, in Bennett & Guerra, 2018, p.103). This reflects synthwave creators' views within the community, where diverse levels of traditionally musical and music production ability are present. It is also reflective of the differing priorities of synthwave creators, some of whom demonstrate little to no concern with

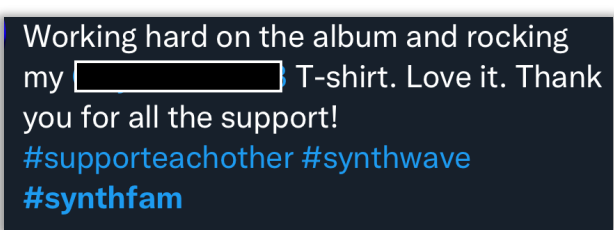
²⁵ Though not its original upload by Cram, this article is accessible from:
<https://electrozombies.com/magazine/article/why-darksynth-deserves-its-own-genre/>.

artist economics or “making it” as is often associated with the professional artist. For many in the synthwave community, creating synthwave-styled music is merely a community activity for them to partake in. Moreover, in utilising support present in online forums or groups within the community, a collaborative effort and sense of community is strengthened. The Twitter version of the synthwave community for example, use the ‘#synthfam’ hashtag, to visually represent community solidarity.



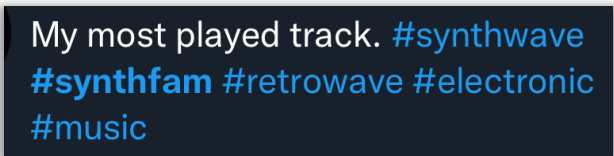
Might be time for a [#synthwave](#) tutorial. [#synthfam](#). Gonna take you

Fig 4.14 [Twitter Screenshot] #synthfam Tweet (Anon, Twitter, 2022).



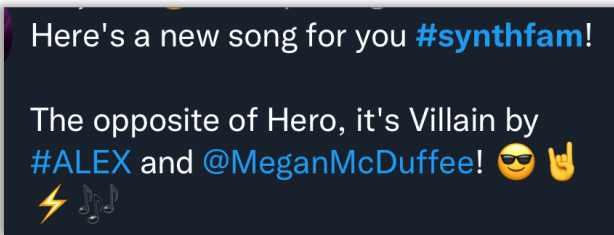
Working hard on the album and rocking my [redacted] T-shirt. Love it. Thank you for all the support!
[#supporteachother](#) [#synthwave](#)
[#synthfam](#)

Fig 4.15 [Twitter Screenshot] #synthfam Tweet (Anon, Twitter, 2022).



My most played track. [#synthwave](#)
[#synthfam](#) [#retrowave](#) [#electronic](#)
[#music](#)

Fig 4.16 [Twitter Screenshot] #synthfam Tweet (Anon, Twitter, 2022).



Here's a new song for you [#synthfam](#)!
The opposite of Hero, it's Villain by
[#ALEX](#) and [@MeganMcDuffee](#)! 🤘🎵

Fig 4.17 [Twitter Screenshot] #synthfam Tweet (Anon, Tweet, 2022).

Support groups across the community are not limited to aiding with aspects of the songwriting process. Groups provide support with music production, sound design, mixing, as well as providing advice regarding online distribution or knowledge of copyright laws. This in turn enables new members of the community to begin creating synthwave, with a streamlined creation support process and accompanying feedback platforms readily available by the online community. Such support often manifests as online threads (e.g. on Reddit) or via comments on video tutorials (created by community members and available on YouTube). Facebook groups also provide support, as well as acting as platforms for

synthwave creators to receive feedback on their work-in-progress or finalised songs. Completed songs may be submitted to, and voted for, in more formalised community spaces, such as The Synthwave Charts.²⁶

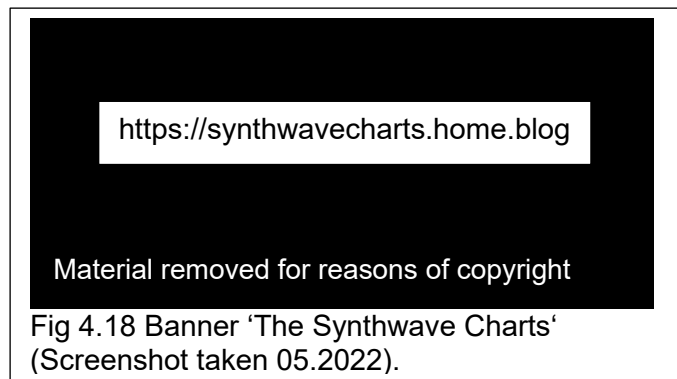


Fig 4.18 Banner 'The Synthwave Charts' (Screenshot taken 05.2022).

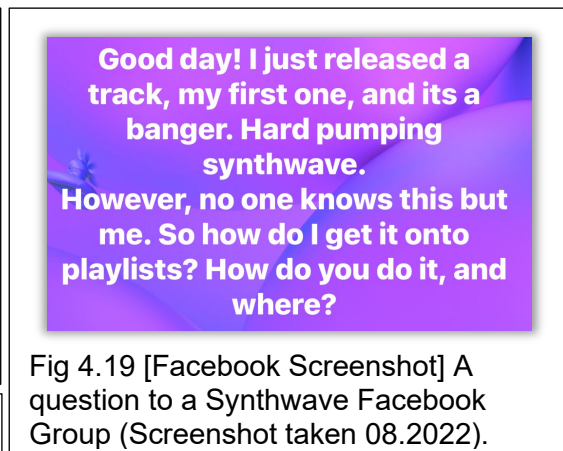


Fig 4.19 [Facebook Screenshot] A question to a Synthwave Facebook Group (Screenshot taken 08.2022).

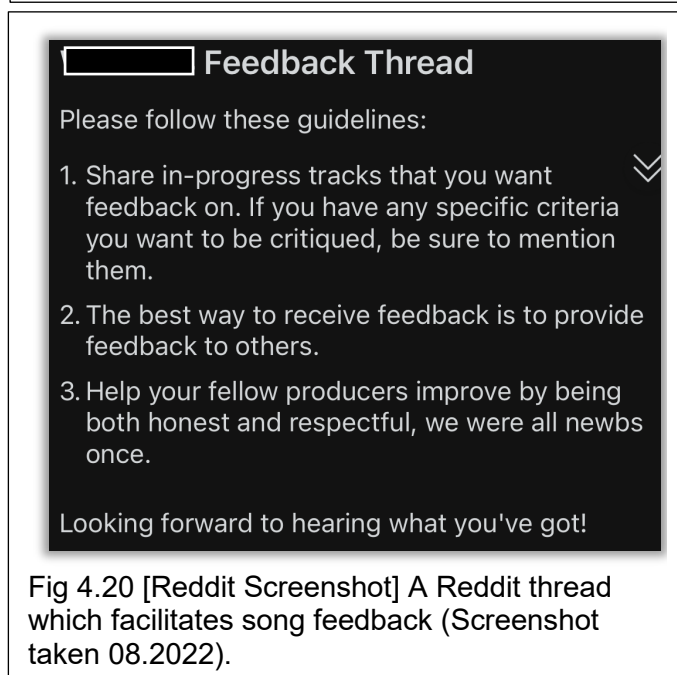


Fig 4.20 [Reddit Screenshot] A Reddit thread which facilitates song feedback (Screenshot taken 08.2022).

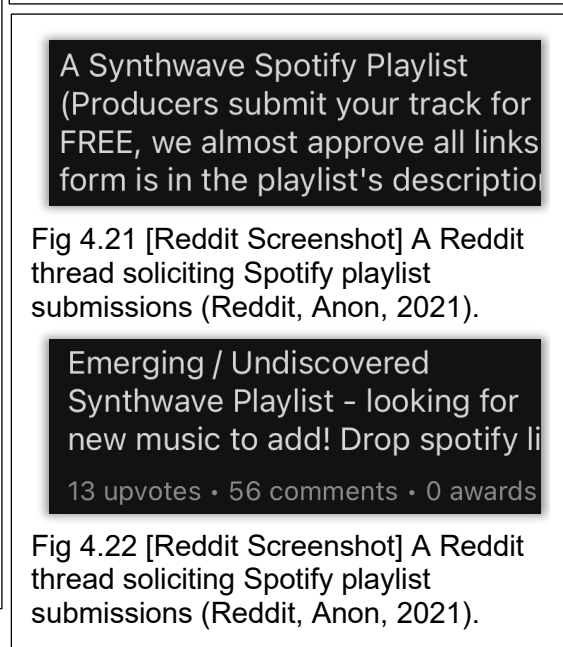


Fig 4.21 [Reddit Screenshot] A Reddit thread soliciting Spotify playlist submissions (Reddit, Anon, 2021).

Fig 4.22 [Reddit Screenshot] A Reddit thread soliciting Spotify playlist submissions (Reddit, Anon, 2021).

I once featured in the Synthwave Charts as part of a collaborative synthwave project called *Superterranea*. I wrote and performed the topline for a track called 'Replicant' (2019), which charted at number 3 in the Synthwave Charts.

²⁶ The Synthwave Charts is accessible from: <<https://synthwavecharts.home.blog>>.

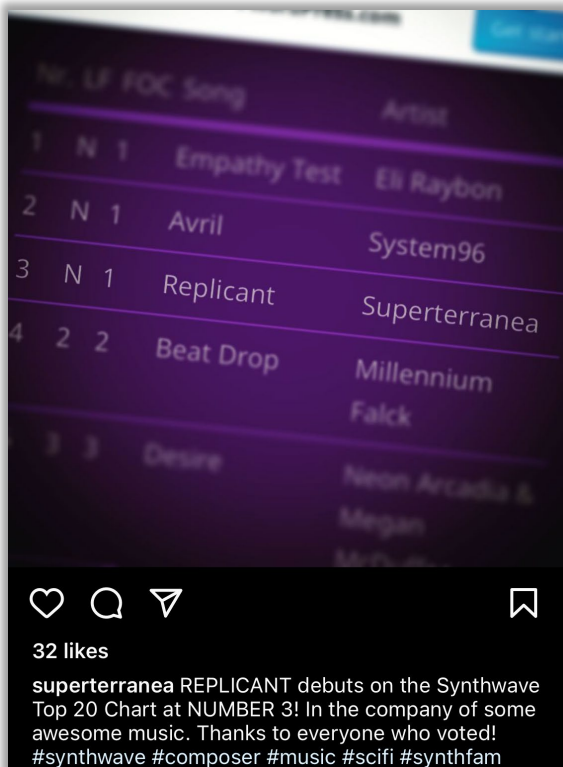


Fig 4.23 [Instagram Screenshot] 'Replicant' (2019) achieving number 3 in The Synthwave Charts (Instagram, Superterranea, 14.04.2019). Image Brook Downton © 2019.



Fig 4.24 [Twitter Screenshot] 'Replicant' (2019) achieving number 3 in The Synthwave Charts (Twitter, Superterranea, 28.04.2019).

- ALL MUSIC WRITTEN + PERFORMED BY BROOK DOWNTON.
- VOCALS WRITTEN + PERFORMED BY JESSICA BLAISE WARD

Fig 4.25 <https://www.superterranea.com> documenting the Superterranea project and its writers (Screenshot taken 08.2022).

A later chapter (Chapter 5: Synthwave Creative Processes) details more in how community resources are created and utilised by its members with regards to creating synthwave music.

Two consequences of the synthwave community's DIY culture can be observed. Firstly, the presence of an established synthwave vocabulary (in reference to style parameters). This was most evident across Reddit group forums where producers regularly discuss their songwriting and mixing processes (please see Chapter 5 for virtual ethnography screenshots). The second consequence was a problematised collective community identity when inclusive of 'amateurs' (Kaitajarvi-Tiekso, in Bennett & Guerra, 2018, p.103) reproducing the synthwave style. This was evident by artists discussing their songwriting values on Twitter and Facebook, where many defended their right to create synthwave (despite not being 'professional') for their love of music and for songwriting as a creative art. This introduced a formal discourse within the community of synthwave music gatekeeping (discussed further in Section 4.2).²⁷

In the absence of a universal understanding of music theory, and with reference to style parameters of synthwave (listed in Table 4.2), a synthwave vocabulary developed within the community. Table 4.3 illustrates how elements of the synthwave style are described by members of the online community, and specifically of how they use DAWs and virtual synths to create synthwave. These methods show how knowledge of music theory or performative skills are not necessarily required for creating synthwave. Table 4.3 is also evidence that community discourse and activity has contributed to shaping the synthwave style, in both its recognition and realisation. Since the focus of this chapter is to document a history of the synthwave community, please refer to Chapter 5 for a full detailed account of synthwave creative processes (which include audio examples of style parameters).

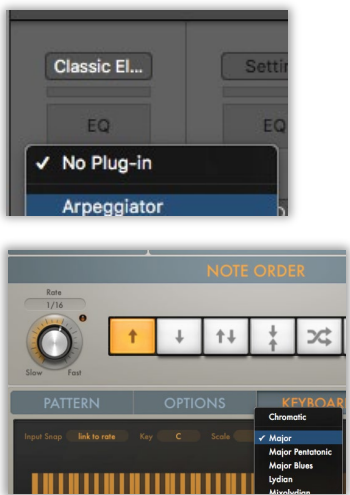
²⁷ This thesis uses gatekeeping in reference to ideas of power and agency within the synthwave community. It considers how entry of synthwave songs, artwork or similar is granted and how (or if) that addition is incorporated to the discourse of synthwave i.e. its subcultural capital.


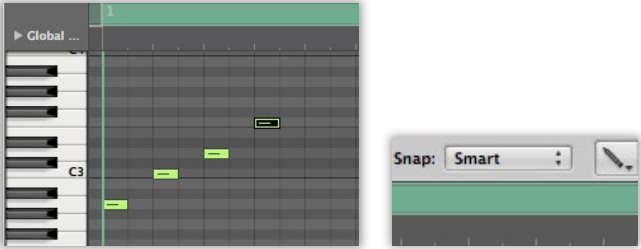
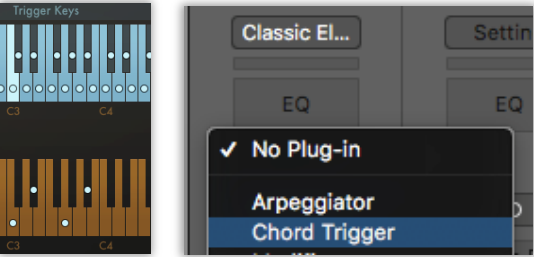
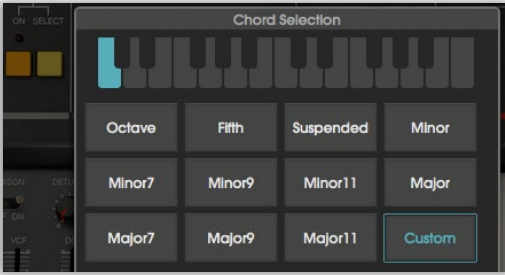
Table 4.2: Synthwave Style Parameters

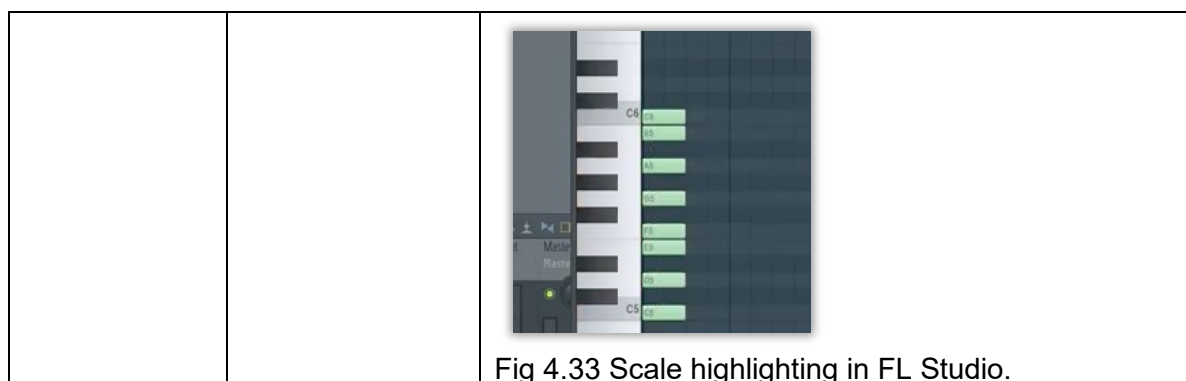
Style Parameter	Description
SP1a	<i>Ostinati</i> or ‘Sequenced’ Synth Bass (8ths or 16ths)
SP1b	Drone Bass
SP2a	Plucky Arp
SP2b	Brassy Arp
SP3a	Detuned Saw Lead
SP3b	FM Bell Lead
SP4a	Lush Moving Pad
SP4b	Brass Pad
SP4c	Brass Synth Stabs
SP5	Four-to-the-floor Drums
SP6	Saxophone solos
SP7	Electric guitar melodies
SP8	Spoken monologues
SP9	Use of vocoder
SP10	Movie style sound effects

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Table 4.3: Synthwave Community Vocabulary & Method

Composition Component	Style Parameter	Method to create style parameter through DAW or synth
Arpeggio / Broken Chord	‘arp’ (SP2)	<p>Can be triggered by a note-generator (root note only required to realise full arpeggio).</p>  <p>Fig 4.26 and 4.27 Logic Pro X: Arpeggiator settings. Top (select Arpeggiator) Bottom (Arpeggiator settings).</p>

		 <p>Fig 4.28 Arturia's Jun-6 V Arpeggiator.</p>  <p>Fig 4.29 and 4.30 'Drawing' in MIDI notes on the Piano Roll (left) with the pencil function (right).</p>
Chords / Harmony	'pads' (SP4)	<p>Singular root notes to be played and chords triggered.</p>  <p>Fig 4.31 (both above) Logic Pro X: Chord trigger settings.</p>  <p>Fig 4.32 Arturia's Jun-6 V Chord Selection.</p>
Hook / Lead Melody (diatonic)	'lead' (SP3)	<p>Scale selection feature which 'lights up' the notes in a chosen mode or scale to signify to the user which ought to be used.</p>



As shown by Figures 4.26 and 4.27, an ‘arp’ can be created via Logic Pro X’s built in arpeggiator, enabling users to only play root notes to trigger full arpeggios. This removes the need to have knowledge of the chosen chord’s notes. The ‘pad’ can be triggered in a similar fashion, by selecting a key and playing root notes to achieve the chords. The ‘lead’ can be created using DAW FL Studio’s scale highlighter, which allows the user to choose a scale and have the corresponding notes highlighted visually by the DAW’s MIDI editor. DAWs such as FL Studio and Logic Pro X also enable the moving of pitches up or down with the MIDI grid, which allows experimentation without the performative aspect of using an instrument (e.g. MIDI controller synthesizer). These affordances support creators who have limited knowledge of music theory or music performance abilities. Some members have explained how DAWs and virtual synths are more convenient in this respect, in that they cannot move notes or change key swiftly with a hardware synth. Equally, DAWs are considered logistically more useful, in that if a plug-in malfunctions, it can be reinstalled; where a hardware synth would be more challenging to fix. For a detailed discussion of virtual synths and hardware used by the online synthwave community, please refer to Chapter 5 Synthwave Creative Processes.

Some of this community language crosses over with elements of EDM, a style which interviewees agreed synthwave has substantial musical links to (Miles Matrix, 2020; Johan Bengtsson, 2019; Kyle Braunch, 2019). However, synthwave and EDM’s treatment of these terms (or language) does in places differ. The ‘arp’ for example, is not treated with the same significance as a song component when used in EDM (as it is with synthwave). Synthwave ‘pads’ likewise differ to EDM ‘pads’, where the synthwave style refers to use of chords, and EDM instead refers to sample pads or trigger pads on drum machines (e.g. Korg’s MikroKONTROL [Butler, 2014, p.130]). The ‘lead’ synth melody reflects synthwave music typically being instrumental (and hence the lead melody taking the place of a lead vocal). Ultimately, during the mid-2010s, the DIY culture of the synthwave style was accelerated by affordances and the accessibilities of DAW technology and virtual synths.

In the mid 2010s, the synthwave community saw both an increase in members as well as increased recognition by people outside of the community. This was due to some key synchronisations to movie, video game and TV (see Table 4.4).

Table 4.4: Key Synchronisations: Synthwave Music as Soundtrack	
Synthwave Artist	Movie, Video Game or TV (Year Released)
Various: Kavinsky, Electric Youth (+ more)	<i>Drive</i> (2011) [Movie]
Various: Moon, Perturbator (+ more)	<i>Hotline Miami</i> (2012) [Video Game]
Blood Dragon	<i>Far Cry 3</i> (2013) [Video Game]
Le Matos	<i>Turbo Kid</i> (2015) [Movie]
Various: Magic Sword, Megadrive (+ more)	<i>Hotline Miami 2: Wrong Number</i> (2015) [Video Game]
Mitch Murder	<i>Kung Fury</i> (2015) [Short Film]
S U R V I V E	<i>Stranger Things Season 1</i> (2016) [TV]
Various: Carpenter Brut, Waveshaper (+ more)	<i>Furi</i> (2016) [Video Game]
Fixion	<i>Mother Russia Bleeds</i> (2016) [Video Game]
Magic Sword	<i>Thor: Ragnarok</i> (2017) [Movie]

One television show, the *Stranger Things* (2016) series, was particularly prominent in raising the profile of the synthwave style; due to the series' immense popularity and success. The series was greatly accepted into the wider discourse of synthwave because of the story's chronological setting in the 1980s (a decade considered key subcultural capital of synthwave).

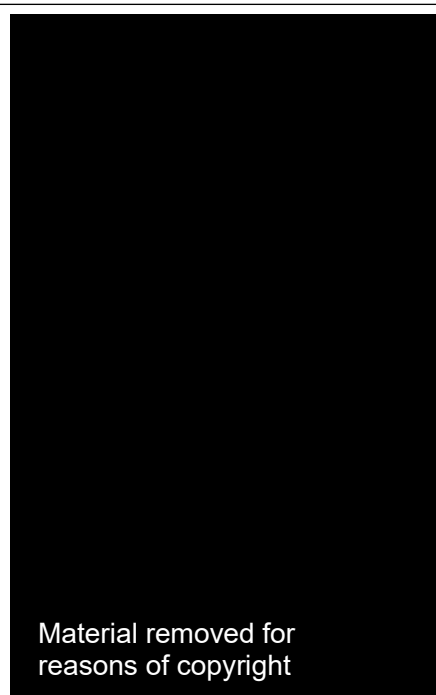


Fig 4.34 *Stranger Things* (2016) Season 1 Poster.

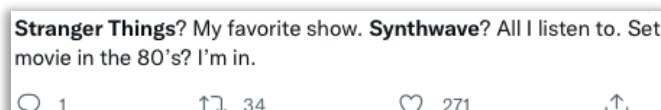


Fig 4.35 [Twitter Screenshot] A Tweet about *Stranger Things* (2016) and synthwave (Screenshot 08.2022).

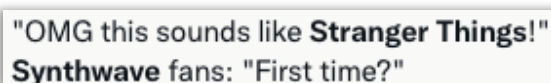


Fig 4.36 [Twitter Screenshot] A Tweet about *Stranger Things* (2016) and synthwave (Screenshot 08.2022).

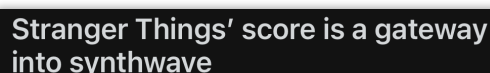


Fig 4.37 [Reddit Screenshot] A Reddit thread about *Stranger Things* (2016) and synthwave (Anon, Reddit, 2016).

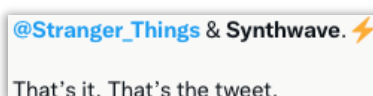


Fig 4.38 [Twitter Screenshot] A Tweet about *Stranger Things* (2016) and synthwave (Screenshot 08.2022).

In addition to key synchronisations of synthwave to television media, the mid-2010s saw many synthwave artists begin to perform live²⁸ on worldwide tours (artists such as Magic Sword, GosT, Christine, Carpenter Brut), raising the style's profile further. Many of my interviewees commented on these developments, and characterised the latter half of the 2010s as synthwave going 'mainstream' (Miles Matrix, 2020; Jordy Leenaerts, 2019; Vincenzo Salvia, 2018) or heading towards 'major [...] releases' (LeBrock, 2019). One interviewee remarked, 'the future of synthwave is too big to be contained in a Facebook Group' (Jon Reilly, 2019). Another significant milestone for synthwave was in 2019, when a documentary called *Rise of the Synths* was created. It was directed by Iván Castell, narrated by film composer John Carpenter, and featured interviews with synthwave artists who described their journeys with the style. John Carpenter is revered by community members for his work as a film music composer, and knowledge of his work is considered key subcultural capital of synthwave. Some of this is due to Carpenter's legacy as a film music composer from the 1980s (a decade which is privileged by the online community), and also due to Carpenter's work with synths on his soundtracks. Chapter 6 explores how John Carpenter has engaged with synthwave artists and audiences.

²⁸ I expand upon live synthwave practices in Chapter 8.



Fig 4.39 Poster for *The Rise of the Synths* (2019).

The rise of the Synths

@RiseOfTheSynths

A documentary about #Synthwave.

Fig 4.40 [Twitter Screenshot] The *Rise of the Synths* Twitter account (Screenshot 08.2022).

Through the story of Synthwave, the film explores these questions: "Why now, this nostalgia for the 80s? Where does it come from?"

Fig 4.41 theriseofthesynths.com (Screenshot 08.2022).

I want to try to capture (and recreate) the universe of these artists, mostly created and influenced by the 80s pop culture. It's a

Fig 4.42 [Reddit Screenshot] Ivan Castell Reddit AMA (Reddit, Ivan Castell, 2017).

GUNSHIP @GUNSHIPMUSIC · May 16, 2016

Stoked to be a part of the The **Rise of the Synths** kck.st/26xKcH8 #GUNSHIP #Synthwave

Fig 4.43 [Twitter Screenshot] A Tweet by GUNSHIP (16.05.2016).

John Carpenter (@TheHorrorMaster) Narrates 'The **Rise of the Synths**'; Watch Online This \

Fig 4.44 [Twitter Screenshot] A Tweet about *The*

Section 4.1 has provided an overview of synthwave's historical development (including common narratives). In doing so, I have outlined community definitions of synthwave subgenres, explained concepts of DIY culture, and described synthwave vocabulary and indicative style parameters. I have observed synthwave's DIY culture, problematising the inclusion of 'amateurs' (Kaitajarvi-Tiekso, in Bennett & Guerra, 2018, p.103) to the synthwave community. This is explored further in Section 2.2, through a case study of 'key figure' (Rice and Ruskin, 2012) Preston Cram, aka Iron Skullet. Section 4.2 explores ideas of synthwave subcultural capital, presented through the analysis of 94 survey responses.

4.2 Synthwave Survey (September 2019)

In September 2019, 94 survey responses were collected through a survey named 'Synthwave'. The survey was posted on four different synthwave subreddits simultaneously, and all responses collected within 48 hours. Survey questions were aimed specifically to understand:

1. the synthwave community's depiction of the style (and associated subcultural capital)
2. synthwave's significance as a musical style to the community (including community member engagement motivations) and
3. community member demographics.

The 10 survey questions are listed in Table 4.5, of which questions 2, 4, 5, 6, 7 and 8 yielded the most results.

Table 4.5: Synthwave Survey Questions (September 2019)	
Q1.	Please indicate your consent in completing this survey.
Q2.	What year were you born?
Q3.	What types of music do you like?
Q4.	This survey was posted on an online Synthwave forum. What does Synthwave mean to you?
Q5.	If any, what Synthwave communities or groups do you interact with? Why do you interact with them?
Q6.	Name 5 of your favourite Synthwave artists. Why have you chosen to name those 5 artists?
Q7.	What do you associate with (or as) Synthwave?
Q8.	If any, in what ways do you create (whether music, artwork, anything else) in relation to Synthwave?
Q9.	How much do you agree or disagree that nostalgia for the 1980's is a big part of Synthwave?
Q10.	Thank you for taking the time to answer these questions. Is there anything else you would like to add about Synthwave?

The survey results revealed a number of key themes, which are presented sequentially below. Theme one was ideas of nostalgia and engagements with 1980s pop culture, theme two was ideas about technological progress, escapism and capitalism in 21st century society, and theme three discussed notions of DIY and professionalism. Theme four was community member engagement motivations and community member demographics. Themes one and three include relevant triangulation with data from my virtual ethnography and autoethnography.

Theme 1: Nostalgia and engagements with 1980s pop culture

The first theme from the survey respondents was of synthwave's relation to the 1980s decade (as well as some comments about childhood nostalgia). When asked 'Q7. What do you associate with [or as] synthwave?' nearly half of respondents named the 1980s (decade) or 1980s music. A quarter of respondents named nostalgia or positive/childhood memories, an intriguing notion when considering the age demographics of respondents. The youngest participants' birth year was 2003, whilst the oldest 1975. The average birth year was 1995, and the majority of respondents were born in the 1990s or early 2000s (hence, most respondents did not live through the 1980s). To have nostalgia for the 1980s without having experienced that decade aptly captures Appadurai's 'ersatz nostalgia' (in Boym, 2001). It also bears resemblance to cultural theorist Boym's 'reflective nostalgia', which 'lingers on ruins, the patina of time and history, in the dreams of another place and another time' (Boym, 2001). Of restorative nostalgia's 'homesickness', Boym asserted: 'never mind if it's not your home, by the time you reach it, you will have forgotten the difference'. Respondents recognised a lack of 'restorative' nostalgia (Boym, 2001), and clarified their nostalgia for, 'the imagined [19]80s' (Survey Anon, 2019), or their having nostalgia for, 'a glamorous, dreamy [19]80s era that never really existed' (Survey Anon, 2019). Respondents stated that the 1980s which they hark back to is idealistic: 'Synthwave is a genre that aims to capture a feeling of nostalgia for a time that never was. [It is] a fictionalised version of a 1980s future' (Survey Anon, 2019).

Some respondents clarified what was meant by nostalgia with examples of music, movies or social phenomena – much of which made direct reference to 1980s films or icons of 1980s popular culture. Examples included: *Bladerunner* (1982), *Miami Vice* (video game) (1986), 1980s movie soundtracks, *Halloween* (1978) director John Carpenter, 1980s sci-fi, cyberpunk, futurism, *Drive* (2011) and video game 'Hotline Miami' (2012).

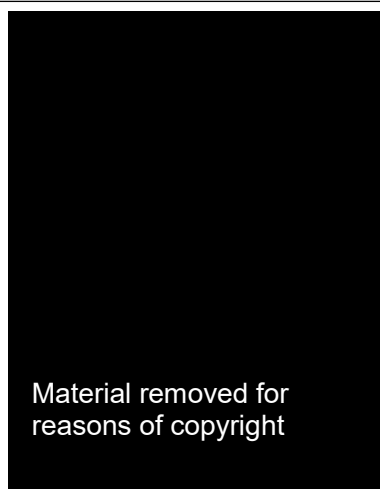


Fig 4.45 *Bladerunner* (1982) Movie Poster.

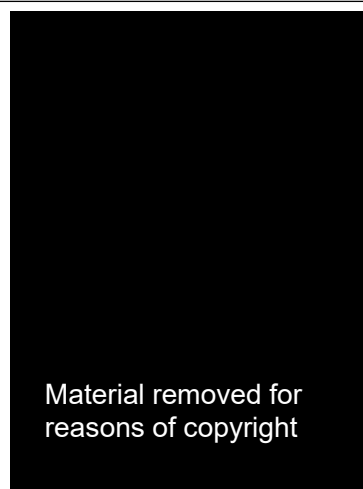


Fig 4.46 *Hotline Miami* (2012) Video Game.

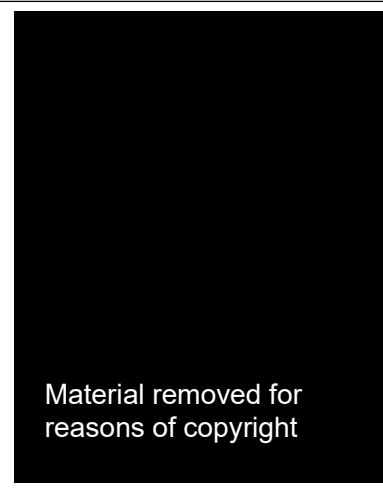
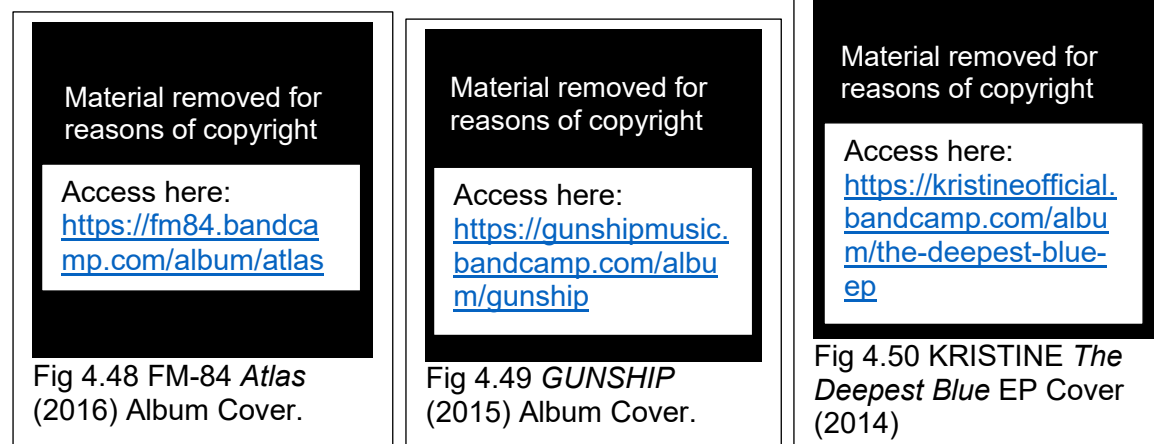
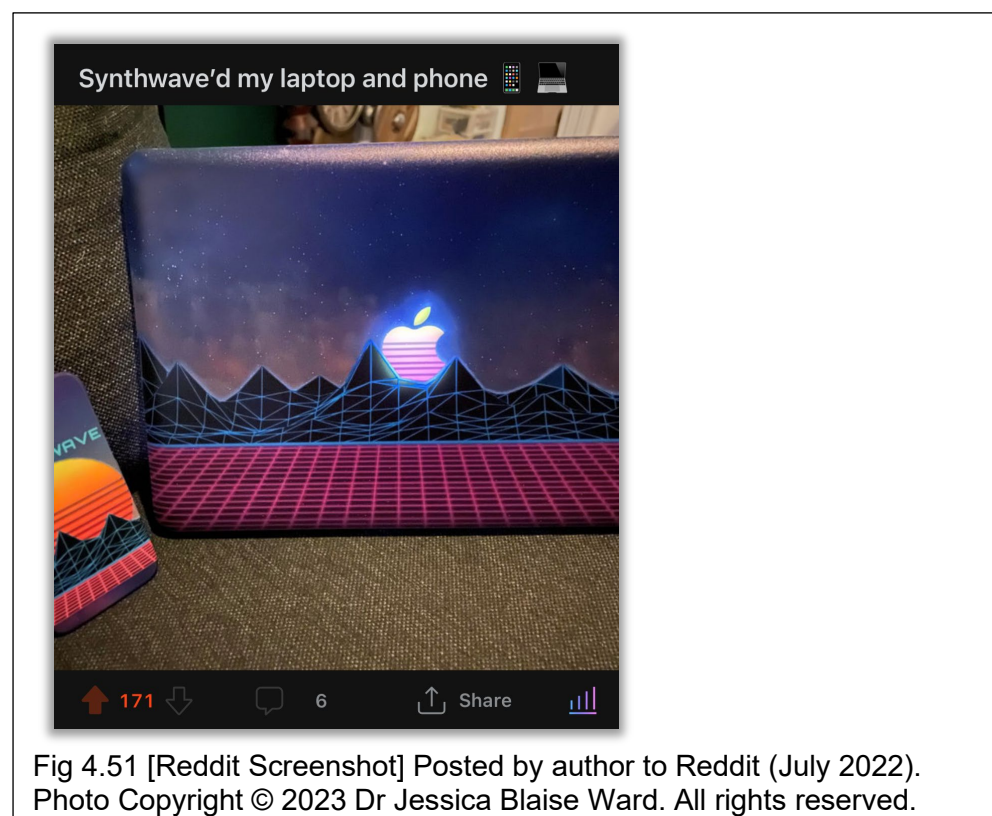


Fig 4.47 *Miami Vice* (1986) Video Game.

Other responses simply listed keywords e.g: ‘retro/vintage’, ‘neon colours [...] purple or orange’, ‘grid-patterns’, ‘sunsets’, ‘beaches’, ‘Miami’, ‘letterman jackets’, ‘varsity jackets’, ‘Wayfarer sunglasses’, ‘visual art’, ‘driving’, ‘night-time cities’. These keywords describe icons of 1980s pop culture (e.g. 1980s films, fashion and imagery, with some evidence shown above in Figures 4.45-4.47), suggesting these visual markers are important to synthwave. My virtual ethnography illustrates the importance placed on the gridded sunset in particular, which forms a lot of synthwave artwork.



To test the importance of these visual identifiers of synthwave, I used them in a custom design for my laptop case and iPhone. I posted the results on various synthwave Reddit pages, which were met overwhelmingly positively, receiving 171 Reddit ‘upvotes’ in less than two days.



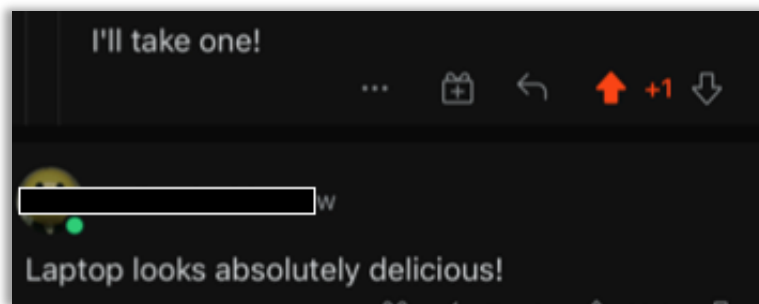


Fig 4.52 [Reddit Screenshot] Responses to 4.51 Reddit post (July 2022).

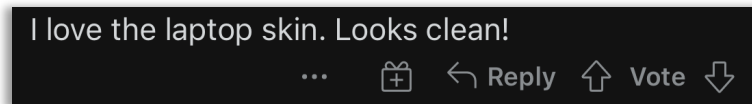


Fig 4.53 [Reddit Screenshot] Responses to 4.51 Reddit post (July 2022).

I also tested the significance of the sunset grid design by posting a photo of my birthday cake from 2019, which my partner Josh designed and made based on synthwave community imagery. Like my custom phone case and laptop skin, my cake was met with upvotes (and kind birthday wishes!) suggesting that it was in keeping with synthwave subcultural capital.



Fig 4.54 [Reddit Screenshot] Posted to Reddit by author (06.2022). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.



Fig 4.55 Photo of author's birthday cake (12.2019). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

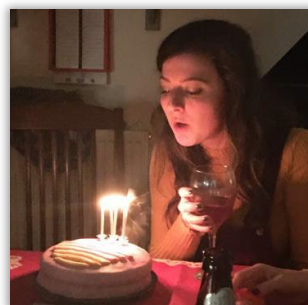


Fig 4.56 Photo of author with the birthday cake (12.2019). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

Respondents of Q4, 'What does synthwave mean to you?' explained that the 1980s decade is the most important attribute of the synthwave style: 'I think it's impossible to remove nostalgia for the [19]80s from synthwave' (Survey Anon, 2019). This respondent defended the idea of 'ersatz' nostalgia: 'I don't believe someone has to have actually experienced the [19]80s to have it [the nostalgia]' (Survey Anon, 2019). Another respondent reflected, 'I think it's funny that we're seeing a resurgence of the culture of the [19]80s. Even though I was born in 1998, synthwave still brings out a bit of nostalgia in me, probably from watching old VHS tapes back when I was a kid' (Survey Anon, 2019). As well as childhood, some ideas about different generations were hinted at by respondents, one outlined: 'Synthwave is a genre that harnesses the [19]80s for today's [younger] generation' (Survey Anon, 2019). A 1995-born respondent reflected specifically: '[synthwave] music reminds me of the crap I used to hear in the cheap [19]80s/[19]90s VHS movies my mom would rent' (Survey Anon, 2019). Another respondent offered their thoughts more broadly: 'I think that, for a lot of the people who grew up in the [19]80s, it [synthwave] is very reminiscent of their past lives, and for the younger generations, the remnants of the [19]80s [that have] been available to them as kids [e.g.] materials that have been collected by their parents through the years' (Survey Anon, 2019).

Other responses to Q4 characterised the feelings or emotions that listening to synthwave provided. Many described synthwave as having a specific purpose to them; as 'background music' for driving, studying, working out, or dancing. Others described it as motivating ('[I] wanted some mostly lyric-less and high energy music to help keep me motivated' [Survey Anon, 2019]), supporting research that nostalgia (here enacted through hearing synthwave music) supports goal pursuit (Sedikides & Wildschut, 2018, p.52). Another described the sense of purpose that being a synthwave playlist curator gave to them. Some respondents declared synthwave's status as a '1980s throwback' style (Survey Anon, 2019), or virtual subculture.

Theme 2: Ideas about technological progress, escapism and capitalism in 21st century society

The second theme drawn from survey responses was that of technological progress, as well as ideas of escapism and a resistance to capitalism and 21st century life. A number of responses received from Q7 'What do you associate with synthwave?' described a backlash against contemporary capitalism and technological advancements, framing synthwave music as a form of escapism. One respondent commented, 'It's [synthwave is] an escape and a critique of our hyper capitalist reality' (Survey Anon, 2019). Another described: 'It [synthwave] represents escapism in the dawn of the digital age' (Survey, Anon, 2019). Some

of the comments about escapism and capitalism extended to cyberpunk themes found in sci-fi films, of: 'anti-corporate morals of [19]80s sci-fi films such as *Blade Runner* (1982), or *RoboCop* (1987)' (Survey Anon, 2019). In his text about nostalgia and hauntology, sentiments about the digital age are recognised by visual cultures scholar Mark Fisher: 'those 30 years have been a time of massive, traumatic change [...] with globalisation, ubiquitous computerisation and the casualisation of labour' (Fisher, 2014). In line with comments about escapism in the 21st century, one respondent specified the lack of privacy in today's digital society, expressing their admiration for synthwave artist Trevor Something who practices anonymity and refuses to tour. Another respondent commented specifically on the issue of climate change in the 21st century: 'The present is not that great, just think about climate change [...] That's why living in the past and feeling nostalgic feels great, at least for me' (Survey Anon, 2019). A similar toned response commented on the state of music more broadly in the 21st century: 'Synthwave in a way, saved my life. I was tired of today's music. Tired of radio ads. I didn't know what I was doing in life or where I wanted to go [...] It gave me a community that I could be a part of and be myself (Survey Anon, 2019).²⁹ These comments are reflective of Fisher's summary of the 21st century, which he asserted is 'oppressed by a crushing sense of finitude and exhaustion. It doesn't feel like the future.' (Fisher, 2014). It follows that the above comments suggest synthwave (linked closely to its subcultural capital of nostalgia) is considered to be a form of escapism or therapy in the 21st century.

Also regarding technological progress, a quarter of respondents for Q7 'What do you associate with [or as] synthwave?' associated synthwave with older media technologies, including: 'Primitive, cheap-sounding synths, fuzzy VHS tapes', 'old drum machines and Roland synths [...] cassette tapes', 'Moog synthesizers', 'Walkman', 'Gameboy' and '[19]80s computer graphics' (Survey Anons, 2019). Musicologist Timothy Taylor commented on musician's 'resurrection[s]' of 'synthesizers such as those by Robert Moog', in relation to their creative possibilities when compared to 'automated features' of 'today's [the 21st century] instruments' (Taylor, 2001, p.97). These ideas are explored in later chapters, relating to creative processes of synthwave. Some of these ideas were commented on, however, by survey respondents, who observed how older technologies appear in synthwave music, 'The percussion usually mimics that 808 [drum machine] sound of the [1980s] era, the synths themselves often emulate dated instruments and technology'

²⁹ This comments more broadly on fandom in popular music, where the respondent suggested that synthwave is a part of their identity, or extension of self. Favia & Hall characterise this level of fan involvement as 'enduring involvement', with relation to self-image (& Hall, 2019, p.264). Favia & Hall (2019) also distinguished a fan as more 'intellectually [and] emotionally [...] involved than ordinary consumers' (Favia & Hall, 2019, p.261).

(Survey Anon, 2019). One respondent framed the uniqueness of synthwave as being the combination of 1980s technology with that of the 21st century: 'It's through the fusion of glossy [19]80s synths with modern music-production that makes synthwave such a unique genre within modern music' (Survey Anon, 2019).

Theme 3: DIY and professionalism

The third theme yielded from survey responses was the dichotomy between notions of DIY synthwave musicians and those considered professional or popular synthwave musicians within the community. These ideas were evident upon asking respondents to: 'Q6. Name five of your favourite synthwave artists'. A quarter of respondents named mainly popular synthwave artists (e.g. Kavinsky, Miami Nights 1984, Gunship, FM-84, Perturbator, The Midnight, Mitch Murder), a quarter less popular artists, and half a mixture of popular and less popular artists. Figures 4.57-4.65 shows an example from my virtual ethnography of a discussion about members' favourite synthwave artists.

The Midnight, Gunship, FM Attack,

Fig 4.57 [Reddit Screenshot] (Anon, Reddit, 2020).

The Midnight, FM-84, Timecop1983, Scandroid,

Fig 4.58 [Reddit Screenshot] (Anon, Reddit, 2020).

Two of the best, Kavinsky and Futurecop!

Fig 4.59 [Reddit Screenshot] (Anon, Reddit, 2020).

The Midnight, Timecop1983, Com Truise,

Fig 4.60 [Reddit Screenshot] (Anon, Reddit, 2020).

Timecop1983, and Miami Nights 1984.

Fig 4.61 [Reddit Screenshot] (Anon, Reddit, 2020).

**Mitch Murder
The Midnight
Electric Youth**

KRISTINE is underrated.

Fig 4.62 [Reddit Screenshot] (Anon, Reddit, 2020).

Fig 4.63 [Reddit Screenshot] (Anon, Reddit, 2020).

**Jessie Frye, The Bad Dreamers, Ollie Wride,
Kristine, September 87, Dana Jean Phoenix,
PRIZM, Moonrunner83**

Fig 4.64 [Reddit Screenshot] (Anon, Reddit, 2020).

NINA's of my favorites,

Fig 4.65 [Reddit Screenshot] (Anon, Reddit, 2020).

Part of Q6, 'Why have you chosen to name those 5 artists?' aimed to understand respondents' views and opinions of their chosen artists' reputation and place in the community, or affiliation with a synthwave subgenre. This question also aimed to understand community members' motivations for favouring certain artists. When justifying artist choices, most responses praised artists' songs' musical attributes, or what they considered as 'original' and 'innovative' song writing or music production. Of those who chose only popular artists, some characterised such choices as 'the usual suspects' (Survey Anon, 2019), suggesting a recognition of their popularity. Other reasons for artist choices included them being 'paragon[s] [or pioneers] of the genre' (Survey Anon, 2019), or 'gateway' artists into the style. Alternately, some defended their choices of 'smaller artists', or 'independent/ underground [artists]', with one respondent commenting these artists, 'write better music than the big [popular] ones' (Survey Anons, 2019). Comments about favourite artists demonstrated a gender bias, in that the majority of respondents named only male artists. Overall, only 19 of 94 respondents named at least one female artist (examples including Dana Jean Phoenix, NINA, KRISTINE, Powder Slut) and of those 19, nearly half named Electric Youth, one of the artists from the *Drive* (2011) soundtrack.

Q8, 'If any, in what ways to you create (whether music, artwork, anything else) in relation to synthwave?' explored levels of participation and engagement within the community. A quarter of responses reported that they created synthwave music, with another quarter admitting to designing graphics, imagery, games or video content. The other half admitted creating nothing, with half of these respondents expressing a wish to create if they had the time or skills. This would suggest some community members feel unequipped to adequately contribute to the synthwave community. Some comments hinted at this, with a few respondents disclosing that whilst they did create, they did not make synthwave 'professionally'. Responses indicated a variety of activities that take place within the community, including music, graphics, imagery, video content, game content, playlists, remixes, scripts, models, as well as engagement with synthwave podcasts and interviews. This provides a snapshot of how members of the synthwave community logistically use the internet (as a facilitator) and their skills (whether musical or otherwise) to proliferate this style of music. Examples of my own contributions to the community in this vein include playlists, my own synthwave-styled songs (which have been recognised by playlist curators within the community), and participation in a Gunship Remix Competition.



Fig 4.66 Gunship Remix Competition Poster (2019).



Fig 4.67 [Twitter Screenshot] Communication with RevivalSynth.com November 2019.

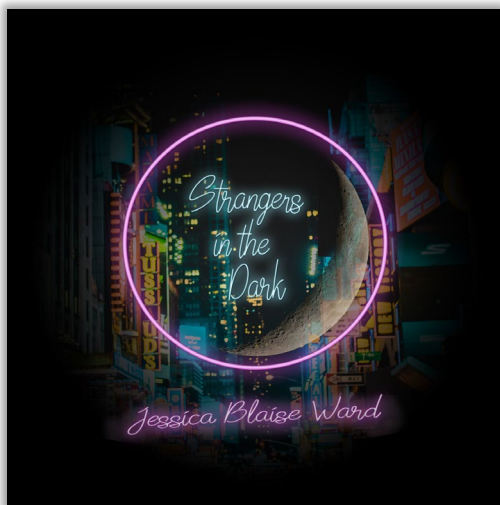


Fig 4.68 Artwork for 'Strangers in the Dark' (2019) by author. Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.



Fig 4.69 [Twitter Screenshot] Author's Tweet thanking RevivalSynth (18/11/2019).

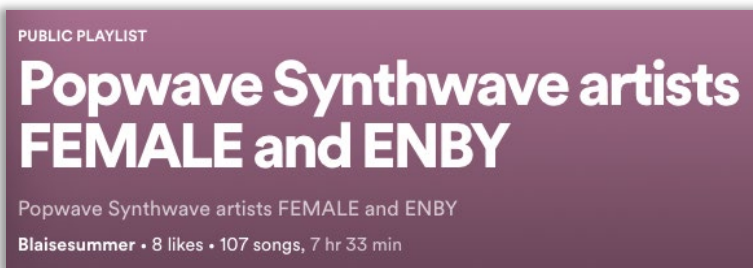


Fig 4.70 [Spotify Screenshot] Author's Spotify Playlist (created and shared August 2022).

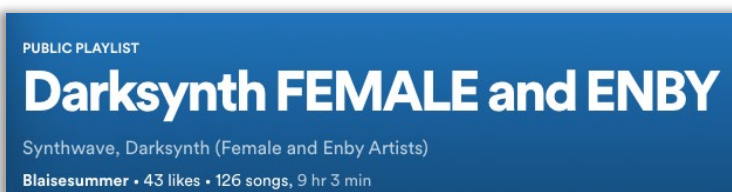


Fig 4.71 [Spotify Screenshot] Author's Spotify Playlist (created and shared May 2022).

Jessica Blaise Ward @bl... · 25/05/2022 ...
 En respuesta a @blaisejess
 Hey folks! Here is the playlist that I made

Fig 4.72 [Twitter Screenshot] Author's Tweet sharing playlist (25/05/2022).

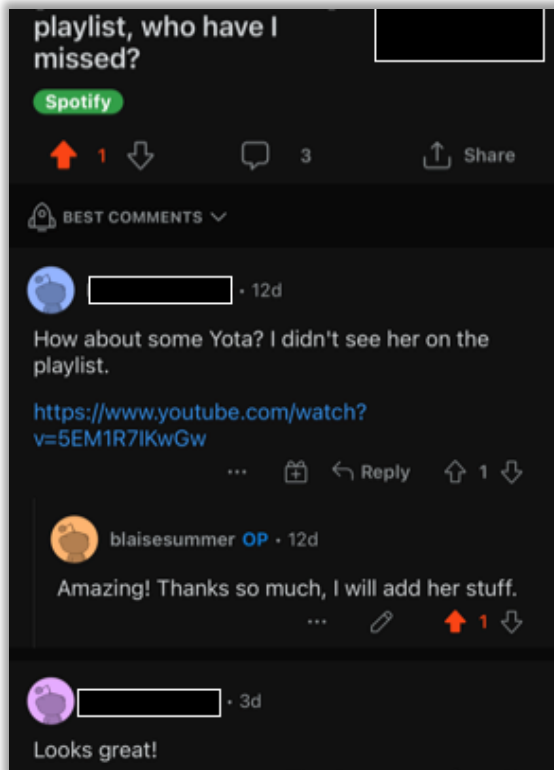


Fig 4.73 [Reddit Screenshot] Author's post requesting songs for a Popwave playlist. Posted to Reddit August 2022.

It would appear many non-creating members (who may or may not consider themselves professional enough to create) do not realise their value as consumers, listeners, or fans of the synthwave style. Subsequently, it would appear some community members do not recognise their silent contributions via social media metrics such as 'likes' or Spotify play counts. Responses to this question indicate that an oblique criterion of professionalism exists within the community. From the responses to other questions, I believe popularity or wide-spread recognition by the community is a relevant factor in affirming who are considered professionals.

Ideas of DIY and professionalism were also reflected when respondents were asked Q3. 'What types of music do you like?', where responses included 'underground', 'indie' and 'alternative'. These terms were not clarified, however may reflect Keunen's (2014) view that such music operates a 'separate circuit' to 'mainstream music' (Keunen, 2014, p.50). Whilst some members of the synthwave community consider synthwave an 'underground' style, some refute the term for its irony in the digital age. Others refute it for its negative

connotations when compared to mainstream or popular artists and music. It is clear from these opinions that differing perspectives are held by community members of the synthwave community's collective identity (explored further through one case study in Section 4.3).

Theme 4: Community member engagement motivations and community member demographics

One question specifically probed community member motivation (Q5 'If any, what synthwave communities or groups do you interact with? Why do you interact with them?'). Over half explained their motivations were to seek new synthwave music, or to find 'new releases'. Other reasons referenced bonding over shared musical interests, and sourcing what many characterised as 'non-mainstream' music such as 'YouTubers promoting small artists' (Survey Anon, 2019). Some characterised the finding of music or playlists as only 'lurking' (with many naming NewRetroWave's YouTube channel as the place for this) or referred to themselves as 'consumers' (Survey Anons, 2019). One respondent referred specifically to playlist 'Synthwave / Retro Electro', and playlist owner Preston Cram aka Iron Skullet. On the other hand, some respondents described using community social media pages to promote their own synthwave music or using Facebook groups to garner advice and support for creating and producing synthwave music. Most commonly, respondents spoke of Reddit as their main source of interacting with synthwave online, outlining how synthwave subreddits specifically provide inspiration for them to create synthwave visual art or music. Some respondents mentioned using social media within the community to contact synthwave artists directly, or to discuss the experience of live synthwave concerts with other people who attended. These responses demonstrate a diversity in community engagement motivations, with a majority wanting to find new music or synthwave releases. Having presented my survey results, I now present a case study of one synthwave 'key figure' (Rice & Ruskin, 2012).

4.3 Ethnography Case Study – 'Key Figure' Preston Cram aka Iron Skullet

This case study examines one 'key figure' (Rice and Ruskin, 2012) within the synthwave community – Preston Cram aka Iron Skullet. Cram is a useful lens through which to explore the synthwave community's differing perspectives of identity (underground, alternative, DIY and popular, professional), illustrated here through three of his key actions from 2019:

1. Cram's new employment with Synthwave record label FiXT Neon in July 2019.

2. Cram's significantly changing the contents of playlist 'Synthwave Retro / Electro' in August 2019.
3. Cram's posting of a blog article titled 'Synthwave is Dead' (Cram, 2019d) to his webpage in December 2019.

Before I discuss these key actions, I provide some basic background information about Cram and his work history. As part of this, I situate him within the synthwave community by outlining his public social media engagements with it. This explains the function of his (former, now defunct) personal synthwave webpage, IronSkullet.com, as well as providing an observer's description of how his playlist 'Synthwave Retro / Electro' operated during 2015-19. I next describe my interactions with him via social media and email, and his email interview responses. Following this, I use findings from my virtual ethnography to outline Cram's three key actions (listed above) and describe the synthwave community's reaction to these. To avoid confusion with his synthwave blog articles, Cram's interview comments are credited as '(PC, 2019)'.

4.3.1 Cram – Background Information

Cram is a Fine Arts major from the University of Colorado, who describes himself as 'a lifelong fan of true heavy metal' (Cram, 2020a). His interests include 'metal and industrial music', 'surrealist art', 'video games and collecting comic books' (Cram, 2020a).

Cram has worked as a freelance artist since 2009, freelance synthwave journalist and playlist curator since 2013, and joined record label FiXTNeon as an A&R and Marketing staff member in 2019. In 2019, Cram operated IronSkullet.com as his main personal synthwave webpage, where he posted synthwave blog articles and synthwave album reviews (Fig 4.74 overleaf shows his webpage and [Cram, 2020b] is an example blog article). Blogs or reviews were usually shared via his personal social media (such as through Twitter or Facebook), which is how members of the community would access them.

As part of Cram's synthwave album reviews (which he started writing in 2017), in 2019, he used a self-made criterion which awarded points for: songwriting, technical execution, audio production, song variety, consistency and memorability.³⁰ His webpage displayed links to his playlists (e.g. 'Synthwave Retro / Electro'), a link for submissions (should artists want to be considered for one of his playlists), and a link for his work with record label 'FiXTNeon'.

³⁰ The full criteria was previously available from: <<https://ironskullet.com/the-grading-scale/>> but the site is now defunct.



Fig 4.74 The home screen of IronSkullet.com (screenshot taken 12.2020).

It was Cram's playlists in particular, that gained him his reputation within the community initially, especially 'Synthwave Retro / Electro' on Spotify. Formed in 'early 2013' (PC, 2019), the playlist had approximately 83,000 followers in 2019 and received its biggest surge of popularity in 2015. Though originally curated by Cram's personal choice (where he would independently select songs from Bandcamp, Soundcloud or Spotify) (PC, 2019), this changed when the playlist grew traction around 2015. At that time, synthwave artists began sending their music to Cram for consideration of a place on the playlist, resulting in him formally allowing submissions through his website IronSkullet.com. As the playlist was active throughout 2015 and 2018, 'Synthwave / Retro Electro' began to amass a reputation for platforming lesser known (or lower profile) synthwave artists. It was during this time period (from 2017 specifically) that Cram began writing reviews of synthwave albums and creating blog articles about synthwave, including 'What is Synthwave?' (Cram, 2018b) and 'Why Darksynth deserves its own genre' (Cram, 2018c). These actions furthered his recognition within the community, and many viewed Cram's actions as a form of legitimising synthwave. Paired with the fact that Cram had no financial or company affiliation of any sort at the time (between 2015-2018), led community members to view his opinions as authentic, honest and intrinsically motivated.

Some artists within the community had other motivations for submitting their music to Cram's playlist, notably, seeing an opportunity to become known to him and resultantly benefit from his agency and reputation within the community. Many hoped they would be reviewed by Cram or included as part of his synthwave blog, which would increase their visibility within the community. I was intrigued by the process of applying to Cram's playlist, so submitted one of my own synthwave inspired songs, 'Strangers in the Dark' (2019) (discussed previously in Fig 4.68) to it. It was rejected, which demonstrates some of the subjectivity present within the community of classifying what is and isn't synthwave, or perhaps just some of Cram's personal tastes and judgement. Nonetheless, Cram and I's email communication eventually led to an interview.

I had a chance to listen to Strangers in the Dark, though I've decided not to add it to the Synthwave / Retro Electro playlist. and I hope you'll submit again in the future.

Cheers,
-Preston / Iron Skullet

Fig 4.75 Email communication between the author and Iron Skullet (April 2019). 'I had a chance to listen to Strangers in the Dark, though I've decided not to add it to the Synthwave / Retro Electro playlist'.

Also, I will go back and check your emails, though if you're still working on the project, would it be all right if I (finally) got the answers back to you?

Fig 4.76 Email communication between the author and Iron Skullet (April 2019). 'Also, I will go back and check your emails [...] would it be alright if I (finally) got the answers [...] back to you?'

4.3.2 Cram – Email interview

I received Cram's written interview response in July 2019 via email. The questions I asked pertained to synthwave's history, as well as some more specific questions about how Cram perceived himself within the community. I felt this was important, as I had only ever heard the community talk about Cram (and this was usually only in reference to his 'Synthwave Retro / Electro' playlist). I was intrigued to understand Cram's own view of his role and status within the community.

Cram informed me he had first heard of synthwave in 2011, though only in reference to a handful of artists (he named Miami Lights 1984 and Lazerhawk). He described his personal involvement with writing synthwave reviews, which he said were the result of his playlist 'Synthwave Retro / Electro' gaining thousands of followers and consequently having 'increas[ed]' his 'role [...] in the genre' (PC, 2019). This response hinted at a self-recognition of his position in the community (which he interchangeably referred to as a genre or community). Cram shared with me some of his Spotify playlist statistics when speaking of this curator work, explaining how: 'the most dominant age group (as of summer 2019) runs from 28 to 34 years old [...] Listeners come from many parts of the world, though there are high concentrations in North America and northern Europe. [...] About 85 to 90 percent of synthwave fans are male' (PC, 2019). His age assertions reflect the older portion of my survey responder demographics, he did not mention any statistics about younger listeners (such as 18-28-year olds). The comment about gender reflects the artist demographic of synthwave artists more broadly, who are more commonly male.³¹

³¹ A more detailed assessment of artist demographic and gender is presented across Chapters 6 and 7.

Cram described the progression of what became known as the synthwave community, characterising: 'a series of informal, very underground releases in the mid 2000s [...] on MySpace' (PC, 2019). He considered '2008' to be the first significant year in synthwave's history' (PC, 2019), though he did not clarify this statement. A search of synthwave artists who released albums in 2008 include: College, Minitel Rose, Anoraak, Futurecop! and Parallels. It is possible that Cram was referring to artists such as this, especially College, who were later featured on the OST for *Drive* (2011). As discussed in Section 4.1, *Drive* (2011) is considered significant in the popularising of synthwave. Oddly, Cram made no reference to *Drive* (2011) at any point, instead recognising artists such as Gunship and The Midnight who expanded 'the genre [synthwave]', by appealing to 'younger, more mainstream listeners' (PC, 2019). The only film Cram referenced with regards to 'attract[ing] new listeners' was *Kung Fury* (2015), which is too, accepted as subcultural capital of synthwave by the community.

Cram attested to the significance of the internet in the creation of what is now known as the synthwave community: 'Without the Internet, there would be no synthwave [...] synthwave culture existed almost entirely online until around 2015 or even 2016, at which point the fanbase became large enough to justify small shows [live concerts]' (PC, 2019). When I asked him about listener and engagement demographics of the synthwave community, he distinguished two age categories of listeners, firstly: 'the original audience for synthwave was old enough to have experienced the 1980s, either as children or teenagers [...] they listened because they were deeply nostalgic for their childhoods. [...] Many of the original creators and fans are now in their 30s and 40s' (PC, 2019). Secondly, he spoke of a younger cohort, 'the genre has shifted [...] to include a much younger group of creators and listeners who have no personal memories of the 1980s, and in many cases, no real familiarity with music from the [19]80s' (PC, 2019). When I asked Cram why he thought people enjoy synthwave, he in fact spoke directly of nostalgia, referencing specifically those old enough to remember the 1980s but also 'current fans' who 'enjoy the *idea* of the 1980s' (PC, 2019). Like many of my respondents, Cram seemed to recognise the idealistic version of the 1980s which the synthwave community celebrate.

I asked Cram to characterise his role or status in the community. He reflected, 'Until last year [2018], people knew me best for my synthwave playlists. After I published 'What is Synthwave?' [in March 2018] people now [2019] mention my reviews and other articles instead of my playlists' (PC, 2019). He explained that community opinion of him ranged a 'spectrum from love to hate' (PC, 2019). Positively, he felt, 'Some people believe I play a valuable role in challenging artists, encouraging more honest and mature conversations about the genre [synthwave], and helping underground artists reach an audience' (PC, 2019). Negatively, he mused how, 'Other people think I'm egotistical, mean-spirited, too

uptight about genre classifications, and that I'm generally destroying the genre and culture around it [synthwave]' (PC, 2019). It was clear from these comments that views of Cram are polarised. Cram theorised why many synthwave creators dislike him, hinting at his playlist song choices: 'If I like someone's music, they usually like me. If I don't like their music, they tend to dislike me, sometimes very strongly and very publicly' (PC, 2019). Though Cram qualified nothing further with this comment, he did respond to a later question with: 'Synthwave is currently [July 2019] enduring a flood of bad music from amateur creators' (PC, 2019). This use of amateur seemed to refer to the traditionally negative version of the word, meaning inexperienced. Despite this, Cram asserted his belief that synthwave is 'on the cusp of a mainstream breakthrough at any moment [July 2019]'. He added that artists and producers of synthwave now [July 2019] 'are almost all creating music that would've been difficult to classify as synthwave in the first half of the 2010s' (PC, 2019).

In summary, Cram is aware of his position within the community. He explained how and why community members may or may not agree with his agency, particularly in reference to his playlist, 'Synthwave Retro / Electro'. He outrightly stated his distaste towards 'amateurs' (PC, 2019), and specifically demarcated a change he observed in the synthwave style from 2008-2015 to 2015-2019. Though these comments would initially suggest he may have a problem with 'current' (or 'amateur') synthwave compared to 'original' synthwave, this is not entirely correct. On the contrary, Cram recognises the success of synthwave artists and producers active since 2015, describing them as 'extremely talented' (PC, 2019), suggesting they have potential to go 'mainstream' (PC, 2019). What Cram distinguishes, is that synthwave made after 2015 is not entirely comparable to synthwave made in the early years of the genre's formation. This is emphasised by Cram's distinguishing listeners and creators of synthwave into two age categories, of those who did live through the 1980s (whom he considers in some cases as original creators of synthwave) and the younger creators who didn't live through the 1980s and began creating synthwave in the mid-2010s.

4.3.3 Cram – Community Reaction to Cram's Three Key Actions in 2019 (Ethnography Case Study)

In 2019, three key actions by Cram altered his reputation within the community:

1. Cram's new employment with Synthwave record label FiXT Neon in July 2019.
2. Cram's significantly changing the contents of playlist 'Synthwave Retro / Electro' in August 2019.

3. Cram's posting of a blog article titled 'Synthwave is Dead' (Cram, 2019d) to his webpage in December 2019.

Importantly, these actions facilitated a dialogue within the synthwave community about differing perspectives of identity (underground, alternative, DIY and popular, professional). Key actions are presented chronologically, with explanations of the community's reactions to each (observed through virtual ethnography of the synthwave community).

Key Action 1: New employment at FiXT Neon (July 2019)

In July 2019, Cram announced a change in employment status (via a Facebook post) on his Iron Skullet profile. He had accepted a new position with record label 'FiXTNeon' as an A&R and marketing staff member.³²



Crucially, Cram was previously known as a freelance journalist within the synthwave community, who contributed blog articles, artist album reviews and playlists of his own accord. This independent contribution to the synthwave community had gained him a respected reputation since 2015, especially with his most popular playlist, 'Synthwave / Retro Electro'. Cram's new employment marked a clear change in his trajectory as a synthwave journalist, simultaneously sparking a dialogue about professionalism within the synthwave community.

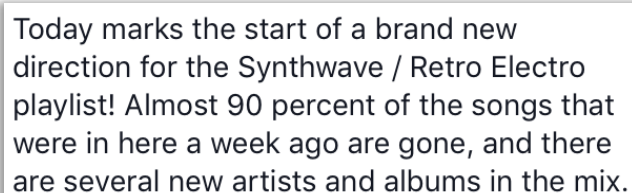
Though the community's reaction to Cram's employment change was initially positive (especially across Facebook and Twitter), one comment questioned Cram's competence to judge 'mainstream synthwave' in his new job role. This reflects the reputation of some synthwave record labels within the community more broadly. Labels 'NewRetroWave' and 'FiXTNeon' for example, are both considered high profile and professional record labels within the community. Though not major labels, they are generally viewed with major label ideologies by the community due to their financial resources (e.g. their respective large staff

³² Record label FiXTNeon originated in 2006 with artist Scandroid (aka music producer Klayton) and co-founder James Rhodes. Artists on their roster include: Essenger, LeBrock, Moonrunner83, PRIZM, Scandroid, The Bad Dreamers (amongst others). As of 2021, the label is known as FiXT Music (<https://www.fixtmusic.com>) and consists of 3 label divisions: FiXT, FiXT Neon and FiXT Noir.

teams) and consistently high streaming metrics on YouTube and Spotify.³³ When Cram was a freelance journalist, his playlist ‘Synthwave / Retro Electro’ had generally platformed the opposite, i.e. lower-profile or underground artists. More direct opinions about this conflict of interest did not surface until August 2019, when Cram significantly changed the contents of his playlist ‘Synthwave Retro / Electro’ (termed Key Action 2).

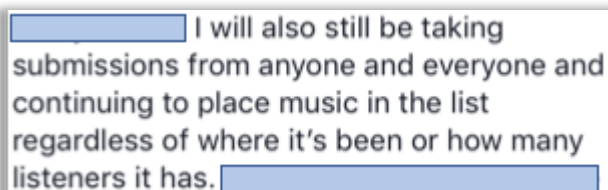
Key Action 2: Changing playlist ‘Retro / Electro’ (August 2019)

In August 2019, one month after Cram’s new employment with record label ‘FiXTNeon’, the contents of playlist ‘Synthwave Retro / Electro’ were significantly changed. Cram announced this change in a Facebook post on his Iron Skullet profile, simultaneously sharing the Spotify playlist. Through text in the Facebook post, Cram denied outright any coincidence with the timing of his new employment to ‘FiXTNeon’ and the playlist’s change in contents, and assured that anyone could still submit to his playlist.

A screenshot of a Facebook post by Cram. The text reads: "Today marks the start of a brand new direction for the Synthwave / Retro Electro playlist! Almost 90 percent of the songs that were in here a week ago are gone, and there are several new artists and albums in the mix." The text is in a standard sans-serif font, with the first line in bold. The background is a light blue gradient.

Today marks the start of a brand new direction for the Synthwave / Retro Electro playlist! Almost 90 percent of the songs that were in here a week ago are gone, and there are several new artists and albums in the mix.

Fig 4.78 [Facebook Screenshot] Cram announcing his updated Synthwave / Retro Electro Spotify Playlist in August 2019.

A screenshot of a Facebook post by Cram. The text reads: "I will also still be taking submissions from anyone and everyone and continuing to place music in the list regardless of where it's been or how many listeners it has." The text is in a standard sans-serif font, with the first line in bold. The background is a light blue gradient.

I will also still be taking submissions from anyone and everyone and continuing to place music in the list regardless of where it's been or how many listeners it has.

Fig 4.79 [Facebook Screenshot] Cram announcing his updated Synthwave / Retro Electro Spotify Playlist in August 2019.

In response to the playlist’s contents change, Facebook comments were mixed. Some were positive, from artists expressing thanks for their being featured on the original playlist.

³³ To the contrary of major label ideologies, FiXTNeon’s official website in fact describes them as: ‘an artist-owned, independent record label covering creations across a full spectrum of retro synth music, including synthwave, indie pop, cyberpunk, and more’ (FiXTNeon, 2020).

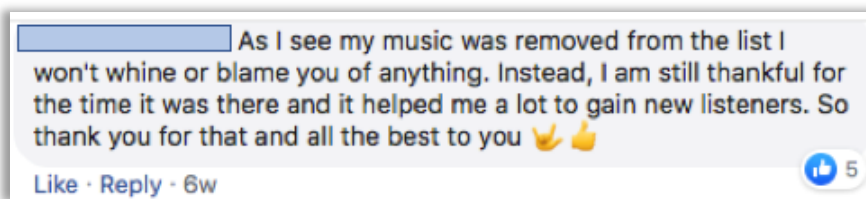


Fig 4.80 [Facebook Screenshot] A comment on Cram's August 2019 post (4.78 above).

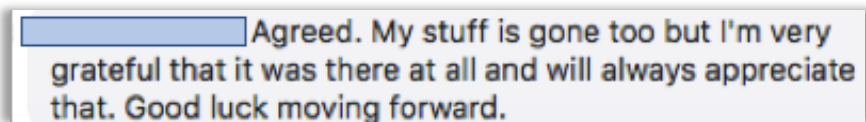


Fig 4.81[Facebook Screenshot] A comment on Cram's August 2019 post (4.78 above).

Others were less positive, demonstrating concern for the now removed place (i.e. Cram's original 'Synthwave Retro / Electro' playlist) for lower profile artists to submit their music to. Equally, some characterised the new direction of Cram's playlist as akin to that of 'NewRetroWave' (a high-profile YouTube channel and record label within the community). On the whole, the general feeling was that Cram had repositioned his allegiance from lower-profile artists to the professionals of artists signed to a record label.

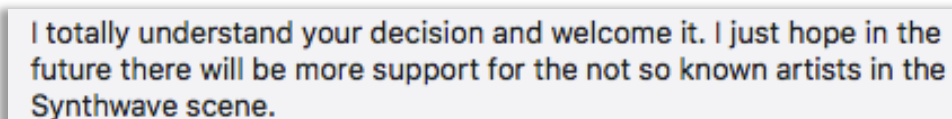


Fig 4.82 [Facebook Screenshot] A comment on Cram's August 2019 post (4.78 above).

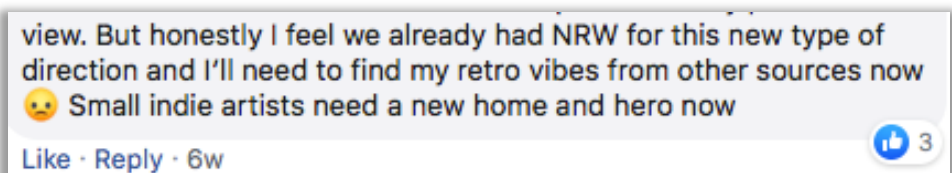


Fig 4.83 [Facebook Screenshot] A comment on Cram's August 2019 post (4.78 above).

Particularly negative comments appeared on Twitter, with many accusing Cram of 'gatekeeping' synthwave (a term community members were using to describe their disagreement with Cram's agency within the community). Another term, 'skulletwave', reflected this disagreement, by suggesting all synthwave music is chosen or gatekept by Cram through his playlist selections.

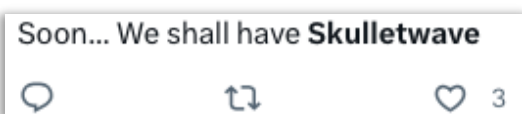


Fig 4.84 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 08.2019).

Further criticism about this selection process accused Cram of upkeeping elitist musical boundaries of synthwave and promoting homogeneity of the synthwave style. Cram responded to the community collectively, via two blog articles in September 2019 (Cram, 2019b; Cram, 2019c). The first defended his playlist choices, refuting any notion of synthwave style homogeneity or elitism, and asserting that some submissions are simply low standard pieces of music (and as such are rejected). The second blog article addressed 'gatekeeper' accusations, outlining the terms inherent nature when working as a playlist curator or music journalist. Around this time, Cram added a rationale for the change in contents of playlist 'Synthwave / Retro Electro' to his Iron Skullet webpage: 'In [August] 2019, I completely overhauled the playlist to reflect the changing state of synthwave and embrace more modern approaches to the genre with higher production standards'. Following the publishing of these two articles (Cram, 2019b; Cram, 2019c), comments I observed through virtual ethnography of the community suggested that some synthwave creators felt insulted by Cram.

That's cool. In the meantime, we can just keep trucking out music that we enjoy, regardless of what someone somewhere decides to call it.

Synthwave producers dont let some little ass bullshit elitist blogger discourage you from making music and having your voice heard. Get heard, play shows, spread art, be your #1 fan.

Fig 4.85 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).
Fig 4.86 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).

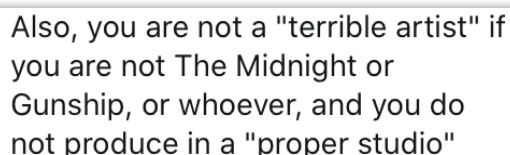
Absolutely, I just want producers to feel free in creating whatever inspires them, and not mould their art to fit into what is perceived as a mainstream direction for the genre.

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Fig 4.87 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).

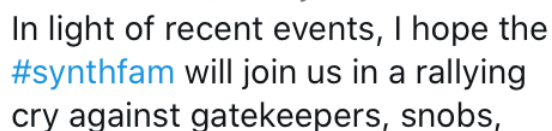
Furthermore, every time an upcoming artist is told they're "not synthwave enough" for trying new things only stifles creative potential and leads to the exact same-sounding homogenized bullshit people like to rant about.

Fig 4.88 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).



Also, you are not a "terrible artist" if you are not The Midnight or Gunship, or whoever, and you do not produce in a "proper studio"

Fig 4.89 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).



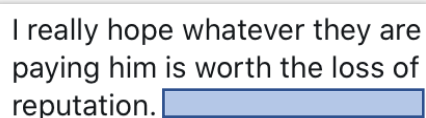
In light of recent events, I hope the [#synthfam](#) will join us in a rallying cry against gatekeepers, snobs,

Fig 4.90 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).

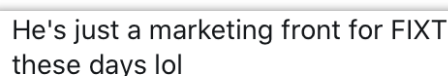
The comments in Fig 4.85- 4.90 reflect wider debates in popular music about ‘music [...] under capitalism’, with the industry sometimes viewed as a ‘corporate machine that wants to control creativity’ (Keunen, 2014, p.92). Cram’s actions brought these issues of collective identity and community ideologies to the fore. Many community members considered his move to ‘FiXTNeon’ a formal affiliation with popular, professional artists, and a rejection of underground, alternative or DIY synthwave creators. Though most had been supportive of Cram’s new employment in the first instance, his changing the contents of playlist ‘Synthwave / Retro Electro’ surfaced disagreements with what this action represented.

Key Action 3: ‘Synthwave is Dead’ (December 2019)

In December 2019, Cram posted a new blog article on his webpage: ‘Synthwave is Dead. Long Live Synthwave’ (2019d). This article was for the most part, negative: ‘Synthwave [...] is a wasteland’, ‘[it is] an army of mediocre and worse artists still attempting to mimic the sounds of early Synthwave’. Cram also expressed how: ‘mountains of worthless Synthwave albums’, and ‘horrible artists [are] working in the style today [2019]’. Community members via Twitter vigorously disagreed, showing solidarity with their Twitter hashtag ‘#synthfam’. Many comments across social media asserted what they felt were synthwave’s core values, as primarily concerned with creative art and artful expression rather than mainstream success. One member accused Cram outright of being ‘a marketing front for FIXT these days’. A similar response stated: ‘I really hope whatever they are paying him is worth the loss of reputation.’



I really hope whatever they are paying him is worth the loss of reputation. [\[redacted\]](#)



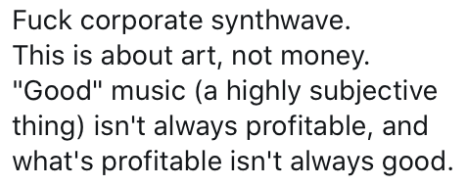
He's just a marketing front for FIXT these days lol



🗨️ ↺️ ❤️ 2 ↗️

Fig 4.91 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).

Fig 4.92 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).



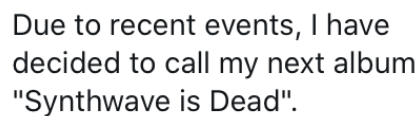
Fuck corporate synthwave.
This is about art, not money.
"Good" music (a highly subjective
thing) isn't always profitable, and
what's profitable isn't always good.

5 9 50

Fig 4.93 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).

These comments reflect sentiments by Kaitajarvi-Tiekso (in Bennett and Guerra, p.103) of the DIY amateur rather than by a professional. Namely, Kaitajarvi-Tiekso provided a new ontology of 'amateurism', as an activity which 'de-territorializes' activities undertaken by professionals (e.g. music occupations where careers or fame are sought) and 're-contextualizes' them as risk free 'spaces' to express oneself. It is clear that many community members resonate with this understanding of the amateur and felt marginalised by Cram's negative comments of their artistic expression.

The criticisms of 'Synthwave is dead' continued for some time following the article's publishing, mostly mocking the idea.



Due to recent events, I have
decided to call my next album
"Synthwave is Dead".

2 2 24

Fig 4.94 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).



#Synthwave is alive!

Fig 4.95 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).

Cram addressed the community in a Facebook post on his Iron Skullet profile a few days later, worsening the situation. He declared his role in the community had 'never been about making friends or supporting a scene'.

Chapter 4 Conclusion

From RS's comments at the beginning of the chapter, the initial intentions for synthwave were values of independence, the underground, and alternative styles of music for music producers. Since these beginnings, the style has progressed due to a number of factors. This includes creative practices by a plethora of new creators (both amateur and professional), leading to the development of new synthwave subgenres. An alternative mode of language developed, in place of traditional music theory knowledge. One instrument, the synthesizer, is key to the identity of synthwave, and the DAW is a vital technological

mediator for creators to emulate the timbres of 1980s synths (through virtual instruments or plug-ins). This is the subject of the next chapter, Chapter 5: Synthwave Creative Processes.

Outside of the community, key music to media synchronisations have contributed to the profile of synthwave, resulting in the beginning of synthwave artist tours in the late 2010s. Within the community, certain synthwave artists and albums have become popular over time, despite this notion being at odds with the original (or perceived) independent underground, alternative values of the community. There exist spaces within the community for this discourse to be negotiated, going beyond blog threads and Twitter feeds to include community activities. Such activities include remixes, playlist submissions, playlist creations, the designing of graphics, imagery, games or video content, and more – all which contribute to the negotiation of synthwave subcultural capital and the formation and distinguishing of this genre. As my data has shown, a reasonable portion of these negotiations take place on Reddit and Twitter, with other sources including personal websites, Facebook, YouTube, and more.

Synthwave nostalgia is a curious phenomenon, though the community seem to have a mutual understanding of what it is and what it means. Within literature, it would likely be categorized as ‘reflective’ (Boym, 2001) or ‘ersatz’ (Appadurai, in Boym, 2001). Survey data suggested some of the reasons for this, such as escapism from hypercapitalism. This is converged with a criticism of 21st century technology and the accelerations of media technologies in general, which have occurred since the turn of the century.

At present, it appears that both concepts of underground synthwave and popular synthwave co-exist within the community, albeit problematically. The presence and recognition of higher profile synthwave record labels (such as ‘NewRetroWave’, ‘FiXTNeon’) as well as more popular artists (who in some cases, have success *outside* of the synthwave community) are evidence of this. Equally notable are the continued efforts of synthwave artists and internet record labels who do not experience this level of popularity or success, but nonetheless relish their creations within the community (#synthfam).

In April 2020, Cram reuploaded the original version of his playlist ‘Synthwave Retro / Electro’ naming it, ‘Synthwave Retro / Electro (previous version backup)’. Cram did not remove the newer version of ‘Synthwave Retro / Electro’, and as such the two versions of the playlist now co-exist within the community. Critically, Cram’s original position (2015-2018) as an independent playlist curator is at least comparable to RS’s original intentions for what became the synthwave community. However, Cram’s changed position as a member of staff at a high profile synthwave record label is not as comparable, and was received by the community as the monetisation of synthwave. In July 2020, Cram “retired” his Iron Skullet online handle name, declaring (via a Facebook post) that he would not be writing anymore synthwave articles, and additionally would be scaling back his playlist work.

Isn't he working for FIXT now? A&R or thereabouts?

1 1 Reply Give Award Share Report Save Follow

1y ago

Is he working with Scandroid's label? Good for him! But he could have added an entry officially retiring the blog imo...

1 1 Reply Give Award Share Report Save Follow

ago

Kinda seems like he retired since his last post was about the death of synthwave. Just speculation though.

1 1 Reply Give Award Share Report Save Follow

ago

He retired the blog, but only [announced it on facebook...](#)

1 1 Reply Give Award Share Report Save Follow

Fig 4.96 [Reddit Screenshot] Screenshot from a synthwave Reddit post taken 23/05/2022, posted 2021.

Chapter 5: Synthwave Creative Processes

This chapter is the first to demonstrate some of my experiments in creating synthwave style songs, based on my ethnography of the online community and autoethnography as a composer. My experiments were informed by listening to synthwave songs (of which indicative works are named), and through engaging with community resources such as synthwave subreddits, synthwave YouTube tutorials (with a notable mention of Ste Ingham) and synthwave Facebook groups. The aim of the chapter is to demonstrate synthwave creative processes and indicate methods which attract the label of synthwave by the online community. In doing so, I highlight how the online synthwave community engage with synths and music technology to formulate their musical style, as well as convey their relationship to, and aesthetics of, the 1980s decade. This is shown through virtual ethnography data, my style parameter audio experiments, and a composition commentary of my own synthwave song experiment 'Drift' (2019). With 'Drift' (2019), I debate some of the negotiations present in the synthwave creative process, providing autoethnographic insight. Whilst I make reference to a number of songs throughout this chapter which informed my composition experiments, one synthwave song, 'Back to You' (2018) is taken as a formal case study piece for analysis. I begin the chapter by establishing key synthwave style parameters based on my own analysis of synthwave songs, my virtual ethnography and autoethnographic audio experiments (5.1). I next present my analysis of 'Back to You' (2018) (5.2). I lastly demonstrate my compositional experiment 'Drift' (2019) (5.3) and conclude key considerations in the synthwave creative process.

Table 5.1: Synthwave Style Parameters

With data culminated from my virtual ethnography, style parameters discussed below include:


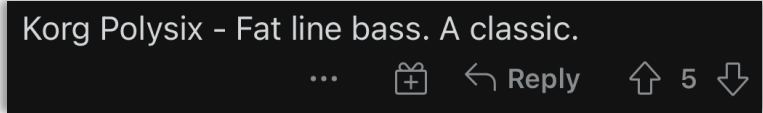
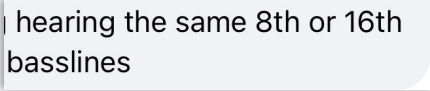
- a community description
- a short musical description
- examples of both 21st century synthwave songs and 1980s songs possessing the style parameter (the latter to demonstrate how synthwave creators engage with and emulate music and synths of the 1980s)
- a suggested (and not exhaustive) list of plugins or virtual synthesizers for the style parameter
- indicative music production techniques associated with the style parameter
- a descriptive account of my audio experiment to achieve the style parameter (explained further within the context of a composition experiment in Section 5.3)


Audio Experiments are accessible from my website:

<https://jessicablaiseaward.wixsite.com/blaiserunner/phd-research-information-1>

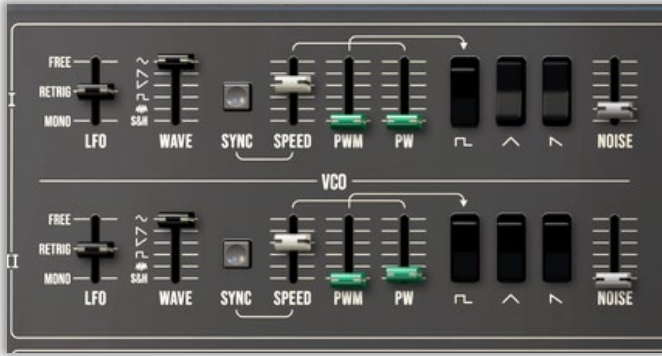
5.1 Synthwave Style Parameters

Table 5.2: Synthwave Style Parameters & Audio Experiments

Style Parameters & Audio Examples	Style Parameter Discussion
<p>1 <i>Ostinati</i> or ‘Sequenced’ Synth Bass (8ths or 16ths)</p> <p>Audio Experiment: SP1a</p> <p>‘<i>Ostinati</i> or Sequenced Synth Bass (8ths or 16ths)’</p>	<p><u>Community description</u>: ‘Pluck’ Bass</p>  <p>Fig 5.1 [Facebook Screenshot] ‘plucky bass’ (Anon, Reddit, 2019).</p>  <p>Fig 5.2 [Reddit Screenshot] ‘Korg Polysix [...]’ (Anon, Reddit, 2019).</p> <p><u>Musical Description</u>: Almost exclusively diatonic and renowned for <i>ostinati</i> 8ths or 16ths.</p>  <p>Fig 5.3 ‘hearing the same 8th [...]’ (Anon, Anon Group, 2017).</p> <p><u>Example Synthwave Tracks with SP1a</u>: Gunship ‘The Mountain’ [0’00] (2015), Bunny X ‘Come Back’ [0’00] (2018), Electric Youth ‘Innocence’ [0’21] (2014).</p> <p><u>Example 1980s Tracks with SP1a</u>: Kim Wilde ‘Kids in America’ (1981) has a similar bassline, though a little more resonance and overdrive is heard. Tiffany’s ‘I Think We’re Alone Now’ (1987) also has an 8ths and 16ths synth style bass.</p> <p><u>Suggested Synth Timbre</u>: Polysix V2 (using patch ‘Fat Line Bass’, Korg’s plugin which is based on their 1981 analog synth), Prophet-5 V (by Arturia, based on Sequential’s 1978 analog synth), DX7-V (a paid emulation by Arturia of Yamaha’s 1983 FM synth, the DX7) or Dexed (a free DX7 emulation by Digital Surburban), OB-Xa V (by Arturia, based on Oberheim’s 1980 analog synth), Mono/Poly V2 (based on</p>

		<p>Korg's 1981 analog synth, often known as the sister synth of the Polysix).</p> <p><u>Music Production</u>: Bass parts are commonly sidechained (often to the effect of pumping) to the kick (through a compressor). One suggested plugin for this by the community is 'Kickstart' (created by company Cableguys).</p> <p><u>Sound Design</u>: Audio Experiment SP1a <i>Ostinati</i> or Sequenced Synth Bass (8ths or 16ths)</p> <p>I used Arturia's Prophet-5 V (patch 'Lotta Bass') as a basis for creating this bass tone. I chose 1 saw wave (osc 1) and 1 square wave (osc 2) with 100% pulse width (see Fig 5.4). The unison setting is 5 voices. A LPF is applied and has a cutoff at 92.3hz and resonance at 0.84 (or 8.4%), with an envelope that has a fast attack (2ms), fast decay (377ms), fast sustain (0.056ms) and fast release (6ms). The amplitude envelope has a fast attack (5ms), fast decay (879ms), fast sustain (0.344ms) and fast release (10ms). Some detune and finetune is applied. I did not set an LFO to modulate the filter as this lessened the 'pluck' of the sound. I was particularly influenced by Gunship's 'The Mountain' (2015) (hear introduction 0'00).</p>  <p>Fig 5.4 SP1a Audio Experiment (Arturia Prophet-5 V).</p>
1	<p>Drone Bass</p> <p>Audio Experiment: SP1b</p> <p>'Drone Bass'</p>	<p><u>Community Description</u>: 'dirty' 'legato' 'pedal' 'drone' 'long and low' 'throbbing rich low-end'. Common to darksynth but also used across synthwave in general.</p> <p>ad a drone under arps,</p> <p>Fig 5.5 '[add] a drone under arps [...]' (Anon, Anon Group, 2017).</p> <p><u>Musical Description</u>: Does not use the 8ths or 16ths <i>ostinato</i> rhythms and instead uses longer rhythms (e.g. semibreves/whole notes) for</p>

	<p>sustained bass notes.</p> <p><u>Example Synthwave Tracks with SP1b:</u> Kavinsky 'Nightcall' (2011), Parallels 'We Belong' (2019), Rose Thaler 'Standing in the Dark' (2020).</p> <p><u>Example 1980s tracks with SP1b:</u> The Police 'Don't Stand So Close to Me' (1980) (bass is actually voiced by a Moog Taurus).</p> <p><u>Suggested Synth Timbre:</u> Tal-U-No-LX (Juno-60 emulation by TAL, based on Roland's 1982 analog synth), Prophet-5 V (by Arturia, based on Sequential's 1978 analog synth), Jup-8 V (by Arturia, based on Roland's Jupiter 8, a 1982 analog synth), M1 V2 (based on Korg's 1988 workstation synth, the M1), MS-20 (by Korg based on their 1978 analog synth), CS-80V (by Arturia, based on Yamaha's 1977 analog synth).</p> <p><u>Music Production:</u> Balance this (EQ wise) against your higher pads (e.g. SP4 below) through use of mirrored equalisation. Sidechain your bass to your kick.</p> <p><u>Sound Design:</u> Audio Experiment SP1b Drone Bass</p> <p>I used Arturia's CS-80V (patch Unison Syn Bass) as a starting point for creating this tone, based on its usage in <i>Bladerunner</i> (1982) and reputation for deep bass drones. I set one square wave (osc I), and set osc II as a mix of a square, triangle and saw wave. Each oscillator is modulated by a sine wave LFO set to retrigger mode (i.e. restarting the envelope every time a note is played), synced to tempo at a 1/4 speed (see Fig 5.6 below). An equal mix (50/50) of osc I and osc II is heard. PWM (pulse width modulation) is left at 0 for both oscillators. Osc I has some noise applied to it. The amplitude envelope is set to a very fast attack and decay (both 2ms) and release is also fast, at 34ms. Osc II's release is fast too, at 47ms. The sustain is set very slow, at 100%. LPFs are applied to osc I (120hz) and osc II (322hz), and both have fast attacks (3ms), with osc I's decay set to medium at 3.18s and osc II's decay set as fast at 900ms. The release is fast (2ms). Single voice is set (the 'classic' mode, rather than having multiple voices, of which the CS-80 offers up to 8). A sine wave sub oscillator ("master" LFO) modulates the filter of both osc I and II, and is synced to tempo at 1 bar speed (anything faster than this lessened the "growl" of the drone bass). Some detune is applied.</p>
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		 <p>Fig 5.6 SP1b Audio Experiment (Arturia Jupiter 8).</p>
2	<p>‘Arps’</p> <p>Audio Experiment: SP2a ‘Plucky Arp’</p> <p>Audio Experiment: SP2b ‘Brassy Arp’</p>	<p><u>Community description:</u> ‘Plucky’ or ‘Brassy’ Arp</p> <p>I prefer to use a short plucky type sound</p> <p>Fig 5.7 [Reddit Screenshot] ‘I prefer to use a short plucky [...]’ (Anon, Reddit, 2019).</p> <p>Synthwave Sounds 01: 80s Brass Arp 40,776 views May 15, 2017 Ste Ingh... 17.4K... JOIN SUBSCRIBED</p> <p>Fig 5.8 [YouTube Screenshot] ‘Synthwave Sounds 01:80s Brass Arp’ (Ste Ingham, 2017f).</p> <p><u>Musical Description:</u> Arps are minimalist for notes (3-4 different ones maximum) and generally move in one direction (pitch wise).</p> <p>I often find myself writing an ostinato (a specific repeating figure) rather than using arpeggiation in the traditional</p> <p>Fig 5.9 ‘I often find myself writing [...]’ (Anon, Anon Group, 2018).</p> <p>They are usually written in an octave which complements (or rather differs from) other parts (e.g. SP3 lead, SP4 pad) in the arrangement. Sometimes arps will act as a ‘lead’ in their own right.</p> <p>try your arps at different octaves 3 años Me gusta Responder 2 </p> <p>Fig 5.10 ‘try your arps at [...]’ (Anon, Anon Group, 2019).</p> <p>Creators may perform their arps but typically make these on the DAW piano roll.</p>


I play them. Or use MIDI input in the Cubase piano-roll to play a set of drawn 16th/8ths/triplets/etc. 

Fig 5.11 'I play them. Or use MIDI [...]' (Anon, Anon Group, 2018).

Example Synthwave Tracks with SP2: The Midnight 'Monsters' (2020) (a), The G 'Lights' (2022) (a), MoonRacoon 'Showdown' (2017) (a), The Abyss 'Faded' (2020) (b), Dana Jean Phoenix 'In Borrowed Time' (2016) (b), Douglas Holmquist & Susanna Lundgren 'Zero Dark Hundred' (2016) (b).


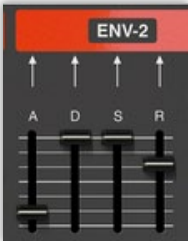
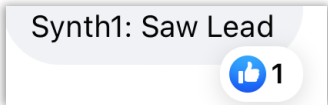
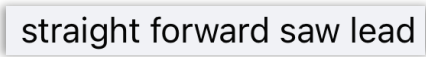
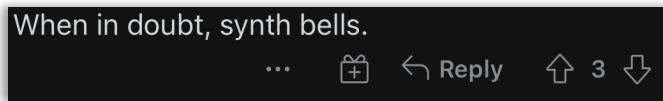
Example 1980s tracks with SP2: Cyndi Lauper 'All Through The Night' (1983) (a), Yaz 'Don't Go' (1982) (b).





Suggested Synth Timbre: Jup-8 V (by Arturia, based on Roland's Jupiter 8, a 1982 analog synth), Mono/Poly V2 (based on Korg's 1981 analog synth, often known as the sister synth of the Polysix), Jun-6 V (by Arturia based on Roland's 1982 analog synth the Juno 6), PG-8X (by Martin Luders based on Roland's 1985 analog synth the JX-8P), the SQ8L (by Siegfried Kullmann, a free emulation of Ensoniq's 1987 digital analog synth the SQ-80) or SQ-80 V (by Arturia, a paid emulation of Ensoniq's 1987 SQ-8), DX7-V (a paid emulation by Arturia of Yamaha's 1983 FM synth, the DX7) or Dexed (a free DX7 emulation by Digital Surburban).

Music Production: Vary the velocities of arp notes to lessen their monotony/repetitiveness (this is subtle but effective). Arp's are usually affected with a LPF or HPF (hear NINA's 'One of Us' (2018) for an 8-bar looped LPF [0'00]). When applying a one-off (e.g. introduction) filter, use automation in the DAW. When doing so, do this on a separate EQ at the end of your effects chain, so as not to impede the track's main EQ settings (your main EQ should be the first in the effects chain). If you wanted a 'looped' filter which is continuous (as with NINA's 'One of Us' [2018]) you might set an automated LPF or HPF within your synth, this can be achieved using an LFO to modulate the VCF and syncing it to tempo with a rate of your choosing.

Sound Design: Audio Experiment SP2a Plucky Arp

Using Arturia's Jupiter 8 ('Classic Brass' patch), I set two saw waves with the VCO 1 and VCO 2 mix at 50% percent each. Detune is

		<p>applied. Finetune is altered on VCO 2 (+0.104st). A 12dB HPF is set at 615hz, with the envelope (env1) set to a fast attack (3ms), fast decay (553ms), fast sustain (22.8%), slow release (6.012s). Pan spread is turned on. The amplitude envelope (env2) has a fast attack (4ms), fast decay (2ms), fast sustain (35.8%) and medium release (2.796s) (see Fig 5.12).</p>  <p>Fig 5.12 SP2a Audio Experiment (Arturia Jupiter 8).</p> <p>To transform this into a 'Brassy Arp' [Audio Experiment SP2b Brassy Arp] change the amplitude envelope settings to: fast attack (6ms), slow decay (46.5s), slow sustain (100%) and slow release (9.084s) (see Fig 5.13).</p>  <p>Fig 5.13 SP2b Audio Experiment (Arturia Jupiter 8).</p>
3	<p>Synth Lead Melody</p> <p>Audio Experiment: SP3a 'Detuned Saw Lead'</p> <p>Audio Experiment: SP3b</p>	<p><u>Community description:</u> Leads</p>  <p>Fig 5.14 'Synth1: Saw Lead' (Anon, Anon Group, 2017).</p>  <p>Fig 5.15 'straight forward saw lead' (Anon, Anon Group, 2020).</p>  <p>Fig 5.16 [Reddit Screenshot] 'When in doubt, synth bells' (Anon, Reddit, 2021).</p>

<p>'FM Bell Lead'</p>	<p><u>Musical Description & Music Production:</u> Leads generally rely on short 'bursts' of descending or ascending melodic contours which commonly make use of arpeggios. Rhythms are usually faster at the start of a melodic phrase and longer at the end, to make use of portamento, pitch bend or finetuning overt (Miami Nights 'Ocean Drive' [2'12] [2012] or Overvad 'Red Nebula' [1'24] [2017] or Astral Tales 'Nebula' [0'36] [2018]). Leads are often "thickened" with use of chorus and delay, used also to convey a detuned sound. The idea of a "thick" lead is also linked to an analog synth monophonic sound, e.g. Korg's Mono/Poly (1984) which had four VCOs which could also function in unison to form one "thick" monophonic voice.</p> <p>Melodic unison between a vocal and synth may be used e.g. NINA 'Beyond Memory Extended Version' [1'53 'time has won'] (2018), Parallels 'Heart of the Wild' [0'22] (2017), and leads are often duplicated at octave e.g. Scandroid 'Rendezvous' [hear lead introduction synth at 0'08] (2017). All of these methods serve to emphasise the lead and make it central in the mix. Also in service of this, leads typically occupy their own 'octave' (e.g. C4 or C5) to allow them a dedicated space in the mix (i.e. different to the SP4 pad and the SP2 arp). This is in addition to use of mirrored equalisation to 'carve out' space for the lead to shine.</p> <div> <p>make sure your lead instrument has some space, either in the frequency or time domain. Meaning, either put your lead an octave above the notes in your chords (or carve out space with your eq) or remove chords/ counter melodies if they conflict.</p> <p>...   Reply  2 </p> </div> <p>Fig 5.17 [Reddit Screenshot] 'make sure you lead [...]' (Anon, Reddit, 2021).</p> <p>Common descriptions of synthwave leads describe them as 'saw leads' which tend to bias use of saw waves (as either one oscillator or multiple oscillators as saw waves). Some use of square wave (with pulse width modulation) is often employed but too much use of the square wave as tone generator can sound like game music (hear the lead in 'Start to Begin Your Journey' by Rosentwig at 0'20 [2019]) and can detract from the synthwave 'saw lead'.</p>
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Example Synthwave Tracks with SP3: Barretso 'Ultimato' (2011) (a), A.L.I.S.O.N 'Golden Dust' [0'20] (2018) (a).

The Midnight 'Light Years feat Nikki Flores' (2017) (b).

Example 1980s Tracks with SP3: Journey 'Separate Ways (Worlds Apart)' (1983) (a), Taylor Dayne 'Tell It to My Heart' (1988) (b).

Suggested Synth Timbre for SP3a: CS-80V (by Arturia, based on Yamaha's 1977 analog synth), Mono/Poly V2 (based on Korg's 1981 analog synth, often known as the sister synth of the Polysix), Jun-6 V (by Arturia based on Roland's 1982 analog synth the Juno 6), Jup-8 V (by Arturia, based on Roland's Jupiter 8, a 1982 analog synth), KC ARP Odyssey (an emulation by Korg of ARP's 1972 ARP Odyssey analog synth).

Sound Design: Audio Experiment SP3a Detuned Saw Lead

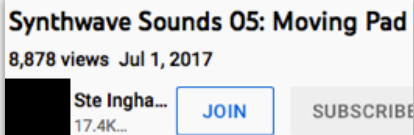
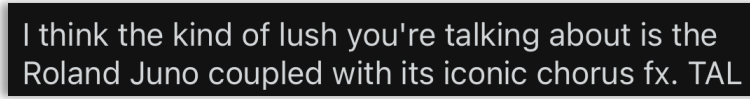
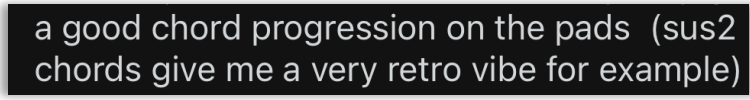
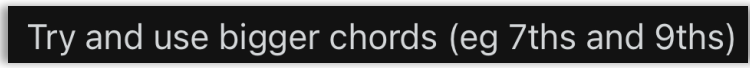
Using Arturia's Jup-8 V (Jupiter 8) with the 'Carpenter Brass' patch as a basis, I set 2 saw waves (VCO 1 and VCO2 50% each), with VCO 2 detuned (-2st). Portamento is applied, pan spread is applied. Amplitude envelope (env-2) has fast attack (1ms), slow decay (7.101s), 0% sustain and medium release (3.752s). Filter envelope has very fast attack (1ms), slow decay (9.905s), 100% (slow) sustain and fast release (2ms). I assigned a saw LFO to both VCO1 and VCO2, set to retrigger and synced to tempo at a 1/8 rate. Effects added include bitcrusher, chorus and distortion. Distortion is applied through a send to control the amount. A HPF is applied on the DAW, filtering everything up to 1khz. Pitch shift is added and cents are automated to drift the tuning in a way that feels more organic, gradual and continuous, and is emulative of oscillators on analog synths which would drift out of tune.



Fig 5.18 SP3a Audio Experiment (Arturia Jupiter 8).

Suggested Synth Timbre for SP3b: Bell leads are often designed with FM synth timbres such as the Yamaha's 1983 DX7 (e.g. its preset

		<p>'TUB BELLS'), Roland's 1987 D50 (e.g. the presets 'fantasia' or 'staccato heaven'), or Ensoniq's 1987 SQ80 (e.g. the presets 'Neon Bell' or 'Jelly Bells'). Alternatively, they might be created using organ or glockenspiel timbral presets which can be altered to give the synthwave 'bell' sound. Community members will often remark bell leads for their 'glassy' qualities, and the synthwave bell is certainly a 'cleaner' 'clearer' sounding bell overall.</p> <div> <p>There's a patch on the DX7 called tubular bells. That could be the sound you're looking for</p> <p>7 años Me gusta 1</p> </div> <p>Fig 5.19 'There's a patch on [...]' (Anon, Anon Group, 2015).</p> <div> <p>FM, wavetable and digital are usually the way to go for sounds of the glassy, twinkly variety.</p> </div> <p>Fig 5.20 'FM, wavetable and [...]' (Anon, Anon Group, 2017)</p> <p><u>Sound Design:</u> Audio Experiment SP3b FM Bell Lead</p> <p>The 'Bell Lead' has similar melodic contouring to the 'Detuned Saw Lead', though has the additional usage as a counter melody (hear at 1'11 The Midnight 'Jason' [2016] or at 0'26 Primo the Alien 'Do It Again' [2021]). An example of a bell lead not in a counter melody capacity is JJ Mist 'Test My Love' [0'01] (2017). Like the 'Detuned Saw Lead', they too have chorus and detune effects. For Audio Experiment SP3b 'Bell Lead' I started with Arturia's DX7 (using the preset 'TUB BELLS'). I added a HPF since bell leads tend to operate in the upper registers (e.g. C5+), and I applied some chorus. The result is a very 'clear' 'clean' 'glassy' almost 'sparkly' bell sound.</p> <p>Leads are arguably the most variable style parameter timbre-wise but do have some common features, notably the considerable use of detune and finetuning, portamento and pitch bend. Their melodic contouring also carries some common traits, to emphasise the aforementioned effects.</p>
4	'Pads' Chords or	<p><u>Community description:</u> 'Lush' 'moving' pads, 'Brass' pads</p>

<p>Sonic Texture</p>	
<p>Audio Experiment: SP4a 'Lush Moving Pad'</p>	<p>Fig 5.21 [YouTube Screenshot] 'Synthwave Sounds 05: Moving Pad' (Ste Ingham, 2017).</p>  <p>Fig 5.22 [Reddit Screenshot] 'I think the kind of lush [...]' (Anon, Reddit, 2021).</p>
<p>Audio Experiment: SP4b 'Brass Pad'</p>	 <p>Fig 5.23 [Reddit Screenshot] 'a good chord progression [...]' (Anon, Reddit, 2021).</p> 
<p>Audio Experiment: SP4c 'Brass Synth Stabs'</p>	<p>Fig 5.24 [Reddit Screenshot] 'Try and use bigger chords [...]' (Anon, Reddit, 2021).</p> <p><u>Musical Description:</u> Use of suspended or seventh chords are common in synthwave. This is due to their perceived 'dreamy' qualities by the community (likely due to obscured harmony in the absence of the third). By extension, some pads often use two long duration notes at the interval of a perfect fourth (e.g. A and D), to convey more of the sus4 sound. Examples of synthwave songs with suspended chords include: Sunglasses Kid 'Runaway' (2017), KRISTINE 'Modern Love' (2015), Michael Oakley 'Real Life' (2021).</p> <p><u>Example Synthwave Tracks with SP4:</u> NINA 'Automatic Call' (2020) (a), Bunny X 'Come Back' (2018) (a), Mitch Murder 'After Hours Run' (2017) (b), Dana Jean Phoenix 'Synth City' (2017), JJMist 'Can't Wait' (2021) (b), Bunny X 'Back to You' [0'01] (2021) (b).</p> <p><u>Example 1980s Tracks with SP4:</u> Cyndi Lauper 'Time After Time' (1983) (a) (in fact played on a Juno 60 with Juno's inbuilt chorus), Toto 'Africa' (1982) (CS-80 plays the brass pad in the intro) (b).</p> <p><u>Suggested Synth Timbre:</u> OP-Xa V (by Arturia, an emulation of Oberheim's 1979 analog synth the OB-X), OB-Xa V (by Arturia, an emulation of Oberheim's 1980 analog synth the OB-Xa), Mono/Poly V2 (based on Korg's 1981 analog synth, often known as the sister synth of</p>

the Polysix), M1 V2 (based on Korg's 1988 workstation synth, the M1), the SQ8L (by Siegfried Kullmann, a free emulation of Ensoniq's 1987 digital/analog synth the SQ-80) or SQ-80 V (by Arturia, a paid emulation of Ensoniq's 1987 SQ-80), Minimoog V (by Arturia, an emulation of Moog's 1970 analog synth the Minimoog), TAL-U-NO 62 (by TAL, a free emulation of Roland's 1982 analog synth the Juno 60), Synclavier V (by Arturia, based on New England Digitals 1977 sampler), Jun-6 V (by Arturia based on Roland's 1982 analog synth the Juno 6), Jup-8 V (by Arturia, based on Roland's Jupiter 8, a 1982 analog synth), PG-8X (by Martin Luders based on Roland's 1985 analog synth the JX-8P).

Music Production: Chords should have slow moving harmony (lots of pedals or semibreves/whole notes). There should be a long release on the sound envelope ADSR. They are often duplicated at octave (through settings on the synth, not necessarily through the piano roll on the DAW). Use mid side mixing (EQ) for pads (which allows you to isolate different frequency ranges at the center or sides of your mix).

Sound Design: Audio Experiment SP4a Lush Moving Pad

Using the Juno 6 (patch 11 Strings 1) I used one saw wave as a basis for creating this sound. I applied Logic Pro X's Autofilter to form the main character of the sound, namely its movement or swell. I set a LPF with a cutoff of 70% and a resonance of 25%. I set a saw LFO to modulate the frequency of the filter at a rate of 2 bars (synced to tempo) (see Fig 5.25). I added some detune. I added a pitch shifter on Logic to automate cent detuning on the pad.



Fig 5.25 SP4a Audio Experiment (Logic Pro X's Autofilter).

Sound Design: Audio Experiment SP4b Brass Pad

Using the Prophet-5 V (11 Brass) I used two saw waves as a basis for creating this sound. I applied a LPF with the cutoff set at 142hz and the resonance at 0.76 (or 76%). The filter envelope has a fast attack (13ms), fast decay (328ms), medium sustain (0.518 or 51.8%), medium fast release (1.76s). The amplitude envelope has a fast attack (5ms), fast decay (406ms), sustain set to 0.700 (or 70%) and medium release (2.43s). A saw LFO is modulating the filter frequencies at a rate of 1 bar (syncd to tempo) (see Fig 5.26). This achieves the swell similar to that of the lush pad. Detune is applied. The velocity of the notes is varied. Juno Chorus is applied via the Prophet-5 V synth, as is a ping pong tape echo. This timbre of brass is more suited to longer duration notes.



Fig 5.26 SP4b Audio Experiment (Arturia Prophet-5 V).

For brass stabs, (Audio Experiment SP4c Brass Synth Stabs) I played $\frac{1}{4}$ notes instead of semibreves/whole notes, and changed my filter envelope to a fast attack (2ms), fast decay (347ms), sustain set at 0.694 (or 69.4%) and medium release (2.15s). I changed my amplitude envelope to a fast attack (1ms), fast decay (446ms), sustain set at 0.76 (or 76%) and medium release (3.79s). Detune is applied. Juno Chorus is applied via the Prophet-5 V synth, as is a ping pong tape echo. This timbre of brass is more suited to shorter duration or staccato style notes, and gives a “rubbery” “bouncier” sound than the brass pad (SP4b).



Fig 5.27 SP4c Audio Experiment (Arturia Prophet-5 V).

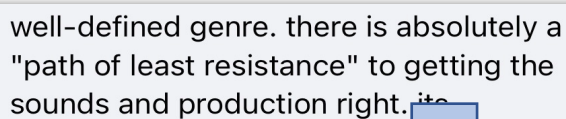
5	<p>Four-to-the-Floor (Programmed) Drums</p> <p>with Tom Fills</p> <p>Audio Experiment: SP5 'Four-to-the-floor Programme d Drums'</p>	<p><u>Community description:</u> 'Four-to-the-floor' Drums</p> <div> <p>looking for an "80's" vibe, the Linndrum is how you accomplish it.</p> </div> <p>Fig 5.28 'looking for an "80's" vibe [...]' (Anon, Anon Group, 2020).</p> <div> <p>Linn Drum blended and compressed with 707, plus some Simmons toms and 808 claps = the quintessential synthwave drumkit.</p> <p>8 sem Me gusta Responder 2</p> </div> <p>Fig 5.29 'Linn Drum blended and [...]' (Anon, Anon Group, 2022).</p> <div> <p>Drums - Snare</p> <p>A. Structure Tip: Play on the 2nd and 4th beats</p> </div> <p>Fig 5.30 [Reddit Screenshot] 'Drums – Snare [...]' (Anon, Reddit, 2021).</p> <div> <p>Drums - Kick</p> <p>A. Structure Tip: Play on every Quarter Note.</p> </div> <p>Fig 5.31 [Reddit Screenshot] 'Drums – Kick [...]' (Anon, Reddit, 2021).</p> <p><u>Musical Description:</u> Drumbeats in 4/4 which favour simple four to the floor dance rhythms. Tempo choices are typically 75-120bpm on average, to accommodate faster rhythms (e.g. 8ths and 16ths), to give a feeling of 'drive' and 'movement' ala driving through a neon city at night (e.g. Jessie Frye 'No Sleep' [2020], Gunship 'Shadow Fury' [2015]). 90-120bpm is mostly recommended by the community. Outrun (an early synthwave subgenre) may have a faster tempi e.g. above 120bpm.</p> <div> <p>90-110 i think is a good place to start</p> <p>años Me gusta Responder 1</p> </div> <p>Fig 5.32 '90-110 I think is [...]' (Anon, Anon Group, 2016).</p> <div> <p>right. Outrun is generally quite pacy, so high 120s I guess, but just go with what feels right for the beat and/or bass line</p> </div> <p>Fig 5.33 'right. Outrun is generally [...]' (Anon, Anon Group, 2016).</p>
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	<p><u>Example Synthwave Tracks with SP5:</u> Trevor Something 'Girlfriend' (2016), Parallels and Futurecop! 'We Belong' (2019), VHS Dreams 'Nightdrive' (2015), Streetwalker 'Nightstop' (2016).</p> <p><u>Example 1980s Tracks with SP5:</u> Bonnie Tyler 'Holding Out for a Hero' (1984), Phil Collins 'In The Air Tonight' (1981) (hear gated reverb on the snare).</p> <p><u>Suggested Timbre:</u> Drum plugins or 'one-shot-samples' usually emulate the Linndrum, LM-1, Roland TR-8, Roland 707, Roland TR-808, Drumulator, or Simmons Drums (Simmons toms are frequently chosen).</p> <p><u>Music Production:</u> Drums are often reversed and used as 'risers'. Drums are often pitch shifted for variety. Use of tape saturation or white noise is often used to make the drum timbre appear more 'analog' and 'warm'. Gated reverb treatment is often heard on the snare and toms.</p> <p><u>Sound Design:</u> Audio Experiment SP5 Four-to-the-floor Programmed Drums</p> <p>I chose the Linndrum plugin for my kick and snare, and Simmons tom hits for my tom timbre. Gated reverb is applied to the snare through creating a bus/aux track. I added a large room reverb (high wet) to the aux and then a noise gate. I then sent the snare to this aux to get the gated reverb sound. I also sent the toms to the aux, to make these gated too.</p>
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The above listed are core style parameters of synthwave, often known as beats, bass, leads, pads, arps. Other less core style parameters (though well recognised nonetheless) include use of saxophone solos (SP6) (heard in Megan McDuffee & moonrunner83 'Streets' [2018], The Midnight 'Jason' [3'10] [2016] and Roxi Drive '1985' [2021]), electric guitar melodies (SP7) (heard in Retouch 'Light Years' [1'15] [2017] or Futurecop! And Parallels 'Home' [1'18] [2022]), use of spoken monologues (SP8) (hear in Gunship 'Tech Noir' [2015]), use of vocoder (SP9) (heard in Kavinsky 'Nightcall' [2011]), movie style sound effects (SP10) (heard in Oblique 'Operator Message' [hear at 4'20] [2017] and Lazerhawk 'Redline' [2010]) and *melodic unison* (SP11) (NINA 'Beyond Memory' [partial use at 1'53] [2018]).

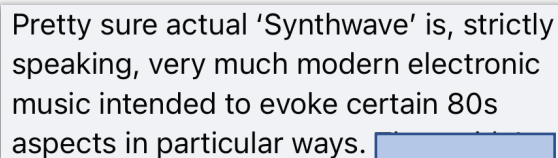
The synth timbres (in addition to drums and samplers) listed for each parameter are not exhaustive but are common suggestions by the community for creating synthwave-styled music. Such choices are an important way in which the community convey their group identity in privileging the 1980s decade, namely through engaging with digital emulations of 1980s music technology. Virtual synthesizer plugins are used to achieve this, in that they

house both timbral and skeuomorphic emulations of the original hardware counterparts. It should be noted that whilst the 1980s decade is absolutely vital to the synthwave community, their focus on synths, samplers and drum machines from this era extends to music technology from the 1970s (e.g. the Minimoog or the ARP Odyssey) due to these items' legacy status within the synth domain and synthesizer history overall. Use of these timbres is well-recognised as vital to synthwave's musical recognition (Fig 5.27 below), as was commented on in a Facebook thread about synthwave's sonic formulaicness which makes it a 'well-defined genre'.

A screenshot of a Facebook thread comment. The text is white on a dark background. It reads: "well-defined genre. there is absolutely a 'path of least resistance' to getting the sounds and production right. it's". There is a small blue rectangular icon at the end of the text.

well-defined genre. there is absolutely a "path of least resistance" to getting the sounds and production right. it's

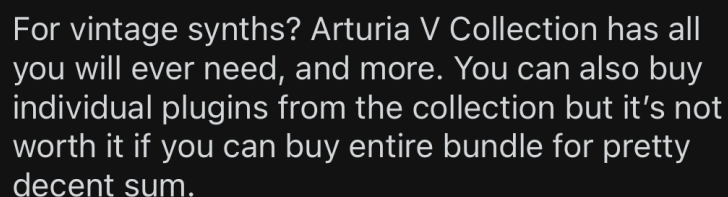
Fig 5.34 'well-defined genre' [...] (Anon, Anon Group, 2018).

A screenshot of a Facebook thread comment. The text is white on a dark background. It reads: "Pretty sure actual 'Synthwave' is, strictly speaking, very much modern electronic music intended to evoke certain 80s aspects in particular ways." There is a small blue rectangular icon at the end of the text.

Pretty sure actual 'Synthwave' is, strictly speaking, very much modern electronic music intended to evoke certain 80s aspects in particular ways.

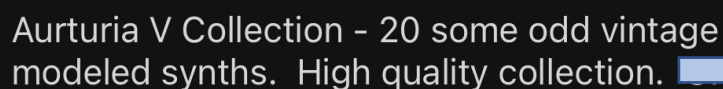
Fig 5.35 'Pretty sure actual [...]' (Anon, Anon Group, 2019).

Virtual synths used in the synthwave creative process range from free (instantly downloadable to your computer) to affordable (2-figures) to higher in cost (3-figures or more), an example of the latter being the Arturia library of synthesizers (599 euros from the official Arturia website). Arturia is highly recommend by the community, though recognised as a high cost investment.

A screenshot of a Reddit post. The text is white on a dark background. It reads: "For vintage synths? Arturia V Collection has all you will ever need, and more. You can also buy individual plugins from the collection but it's not worth it if you can buy entire bundle for pretty decent sum." There is a small blue rectangular icon at the end of the text.

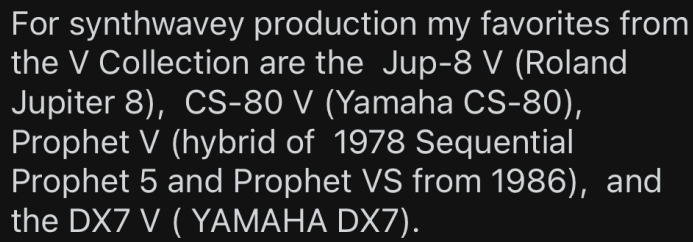
For vintage synths? Arturia V Collection has all you will ever need, and more. You can also buy individual plugins from the collection but it's not worth it if you can buy entire bundle for pretty decent sum.

Fig 5.36 [Reddit Screenshot] 'For vintage synths? [...]' (Anon, Reddit, 2022).

A screenshot of a Reddit post. The text is white on a dark background. It reads: "Aurturia V Collection - 20 some odd vintage modeled synths. High quality collection." There is a small blue rectangular icon at the end of the text.

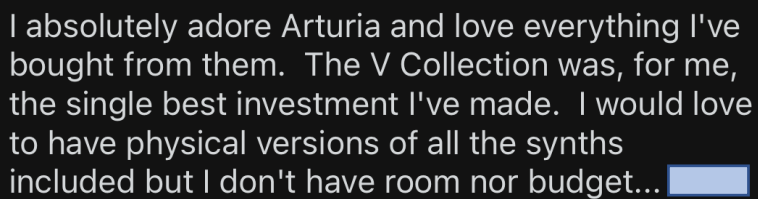
Aurturia V Collection - 20 some odd vintage modeled synths. High quality collection.

Fig 5.37 [Reddit Screenshot] '[Arturia] V Collection [...]' (Anon, Reddit, 2022).

A screenshot of a Reddit post with a black background and white text. The text lists favorite synths from the V Collection: Jup-8 V (Roland Jupiter 8), CS-80 V (Yamaha CS-80), Prophet V (hybrid of 1978 Sequential Prophet 5 and Prophet VS from 1986), and the DX7 V (YAMAHA DX7).

For synthwavey production my favorites from the V Collection are the Jup-8 V (Roland Jupiter 8), CS-80 V (Yamaha CS-80), Prophet V (hybrid of 1978 Sequential Prophet 5 and Prophet VS from 1986), and the DX7 V (YAMAHA DX7).

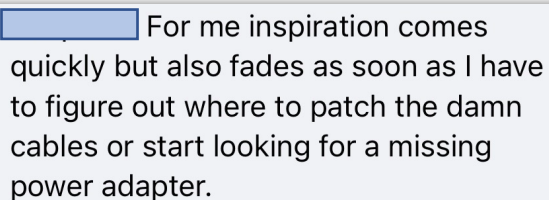
Fig 5.38 [Reddit Screenshot] 'For synthwavey [...]' (Anon, Reddit, 2022).

A screenshot of a Reddit post with a black background and white text. The text expresses love for Arturia and the V Collection, mentioning the desire for physical versions of the synths but noting a lack of room and budget.

I absolutely adore Arturia and love everything I've bought from them. The V Collection was, for me, the single best investment I've made. I would love to have physical versions of all the synths included but I don't have room nor budget...

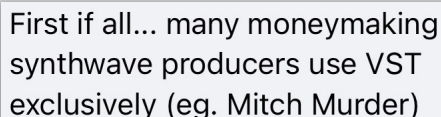
Fig 5.39 [Reddit Screenshot] 'I absolutely adore Arturia [...]' (Anon, Reddit, 2022).

My copy of Arturia was funded predominantly by the Royal Music Association, through their small research grant of £400 (of which I contributed £137.23 to the total cost of £537.23). Purchasing Arturia's library might be considered a trade-off in not having to buy the original hardware, which can be a challenge in terms of cost, availability, physical storage and maintenance, immediate access, and the need for converters if a synth is pre-MIDI (and using CV gate for example).

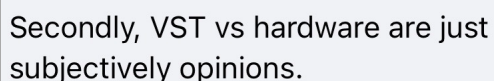
A screenshot of a Reddit post with a light blue background and black text. The text discusses the frustration of inspiration fading when dealing with technical issues like patching cables or finding a power adapter.

For me inspiration comes quickly but also fades as soon as I have to figure out where to patch the damn cables or start looking for a missing power adapter.

Fig 5.40 'For me inspiration [...]' (Anon, Anon Group, 2016).

A screenshot of a Reddit post with a light blue background and black text. The first part of the text discusses how many moneymaking synthwave producers use VST exclusively, citing Mitch Murder as an example.

First if all... many moneymaking synthwave producers use VST exclusively (eg. Mitch Murder)

A screenshot of a Reddit post with a light blue background and black text. The second part of the text states that VST vs hardware are just subjective opinions.

Secondly, VST vs hardware are just subjectively opinions.

Fig 5.41 'First [of] all [...]' (Anon, Anon Group, 2021).

Don't get me wrong - I love HW but it's a pain to set up, store, dust lol

6 años Me gusta Responder 1

Fig 5.42 'Don't get me wrong – I love HW [hardware]...' (Anon Group, 2016).

If I had the money, I'd love to own a bunch of synths. However, as someone who only financially and practically has access to synth vsts,

Fig 5.43 'If I had the money [...]' (Anon, Anon Group, 2016).

This is not to say that creators do not use hardware as part of their creative process, which some do (and certainly those who perform live). Budget suggestions for hardware by the community include the Korg Volca Keys (£188.52), the Korg Monologue (circa £200), the MicroKorg (circa £300), the Korg Minilogue (£572.26), Novation's Mininova (circa £300), Novation's Bass Station II (circa £350), Arturia's MicroBrute (circa £150) and the Behringer Odyssey (circa £400). Other less budget suggestions include the Behringer Deepmind 12D (circa £600), Roland's Alpha Juno-2 (circa £800) and the KORG WaveStation (Circa £1500). The Roland GAIA SH-01 (circa £700)³⁴ is discussed by the community often, but divides opinions since many think it sounds too digital. This conveys the value placed on the sound of analog by the community.

Bass station 2, Micro korg, micro brute.

Fig 5.44 'Bass station 2 [...]' (Anon, Anon Group, 2020).

Hard as they try, the Gaia doesn't sound analog at all... very modern and digital sounding.

Fig 5.45 'Hard as they try [...]' (Anon, Anon Group, 2016).

Alpha Juno's an awesome synth,

Fig 5.46 'Alpha Juno's [...]' (Anon, Anon Group, 2021).

Honestly, I think the Minilogue is the absolute best choice for a first synth in its price range.

Fig 5.47 'Honestly, I think [...]' (Anon, Anon Group, 2016).

³⁴ Prices accurate as of August 2022.

I found some of these synths in my local PMT (professional music technology/play music today) store, such as the Korg Minilogue, which I tested out.



Fig 5.48 The Korg Minilogue in PMT (August 20th, 2022). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.



Fig 5.49 The Korg Volca Keys in PMT (August 20th, 2022). Photo Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

I could understand why community members regarded the Minilogue as a ‘first synth’ purchase. It’s interface, in the style of subtractive synthesis, was clear and accessible, and facilitated the immediate building of sounds. Having the keyboard also meant these sounds could be trialled through melodies (which were coming out of a small additional speaker in the store, but the Minilogue does not come with this – it has a headphone port). Created sounds could be transferred (through the audio out) to a DAW, or creators might choose to send their MIDI data to the Minilogue, which would then allow them to hear musical parts (if written/created on the DAW) with the Minilogue’s sounds.

Regardless of hardware or software, there is evidence of gear acquisition syndrome (GAS) (Herbst & Menze, 2021) within community discussions, related closely to the degree to which synthwave creative processes involve plugin presets or employ sound design “from scratch”.

Let me just collect five more, ok? Then I'll learn synthesis

4 años Me gusta Responder 6

Fig 5.50 ‘Let me just [...]’ (Anon, Anon Group, 2018).

The ‘synthesis’ being referred to (Fig 5.42) in creating synthwave through virtual analog subtractive synthesis, though some users use wavetable and FM synthesis in tandem with this. Subtractive synthesis is the process by which harmonically rich sounds (such as saw or square waves) are filtered to alter their tone. The Arturia collection facilitates this, including

synths such as the Mini V (modelled on the original Minimoog [1970]) and the Jun-6V (modelled on the Juno-6 [1982]). FM (frequency modulation) synthesis involves an oscillator's pitch being modulated by another oscillator. These are referred to as the modulator and the carrier, a key component of FM synthesis being that oscillators interact with each other. Examples include the Dexed plug-in, which emulates the DX7 (1983), a digital synth. Wavetable synthesis refers to oscillators as a table, which contains several waveforms that are cycled through and morph sound. These synths allow you to import your own audio files and convert them into wavetables, enabling you to create complex sound timbres. Massive X (Native Instruments) and Serum (Xfer Records) are examples of wavetable synths.

Fig 5.42 (above) which refers to 'learning synthesis' refers to the practice of sound design with synthesizers (whether in reference to subtractive, FM or wavetable). A DAW is required for synthesis, and common choices of DAW by the community include FL Studio, Ableton Live, Logic Pro X, Reaper, Cubase, Studio One and Cakewalk. With their DAW, synthwave creators can operate virtual synthesizers, of which popular choices include Serum (Xfer Records), Vital (Matt Tytel), Sylenth1 (Lennar Digital), Synth1 (Ichiro Toda), Tyrell N6 (U-he), Diva (U-he), ANA 1 and ANA 2 (Sonic Sounds), Massive X (Native Instruments) and Spire (Reveal Sound). Operating synthesis via virtual synths on DAWs is considered either an alternative to, or in addition to, buying plugin versions of legacy synths (such as those by Arturia) or purchasing hardware (which has its own challenges beyond financial). Virtual synths are certainly considered a more affordable option in some cases, where reverse engineering the sound of say, a Korg Polysix via Serum, is more accessible than purchasing a plugin copy or buying the original hardware. This method does require knowledge of, and experience with, sound design and music production. Community members with a background in music production have dedicated time to creating supportive resources for less experienced members, placing these in video or written form on YouTube and Reddit. This is in addition to the ongoing dialogs (or general discussions) about synthwave creative processes which take place on Reddit threads, in Facebook Groups, and on Discord. These places have the added feature of facilitating audio files, which enables creators to post their work to other community members for feedback or advice.

YouTube tutorials designed for improving knowledge of synthwave sound design are frequently for Serum (Xfer Records, with a cost of \$189.00), a wavetable synthesizer, or Sylenth1 (Lennar Digital, with a cost of 139 euros), a virtual analog synthesizer. Regardless of the type of synthesizer, subtractive synthesis is the most common style of synthesis used for synthwave, so most creators with Serum will operate it in its basic waveform setting (rather than creating their own wave patterns). Creators refer in short to subtractive synthesis as VA (virtual analog).

The price of the resources required to make synthwave (with a suitable computer, a DAW and even one virtual synth being the minimum) must be acknowledged here. Positively, this is something the community are aware of, and as such recommended resources for creating synthwave are often listed separately as either free or paid. This refers not only to virtual synths but DAWs, legacy synth emulation plugins, and more.

You can very easily get Serum to sound great for Synthwave, I use it all the time. Stick to simple wavetable shapes, put some subtle pitch fluctuations in, a bit of tape hiss/noise on the sample/noise osc and you're golden. Serum doesn't have to sound harsh and modern, you can treat it like a VA and it behaves like one.

↑ 10 ↓ Reply Give Award Share Report Save Follow

Fig 5.51 [Reddit Screenshot] 'You can very easily get Serum to [...]' (Anon, Reddit, 2021).

For those of you who don't have Xfer Serum, use Vital by Matt Tytel, it's a free alternative.

👍 2 🗨️ REPLY

Fig 5.52 [YouTube Screenshot] 'For those of you who don't have [...]' (Anon, YouTube, 2017).

I want to second this recommendation! Reaper is a great bit of software, really flexible, easy to use, plenty of options.

The trial period option allows you to get a feel for it, and if you enjoy it at all, you'll find yourself wanting to pay for it.

↑ 2 ↓ Reply Give Award Share Report Save Follow

Fig 5.53 [Reddit Screenshot] 'I want to second this recommendation [...]' (Anon, Reddit, 2019).

Dexed is a free DX7 emulator that has tons of preset banks.

Fig 5.54 [Reddit Screenshot] 'Dexed [...]' (Anon, Reddit, 2020).

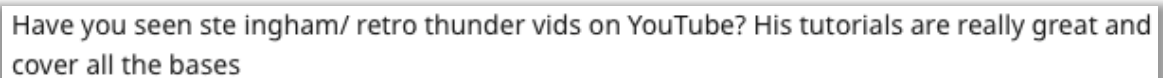
PG-8X is a great free synth

Fig 5.55 [Reddit Screenshot] 'PG-8X [...]' (Anon, Reddit, 2020).

Lite versions of Ableton Live, Cubase, and Studio One (probably others) are often included with relatively inexpensive equipment such as midi controllers and audio interfaces.

Fig 5.56 [Reddit Screenshot] 'Lite versions of [...]' (Anon, Reddit, 2019).

Community resources also provide support with creating musical parts, and particularly DAW-specific methods in creating musical parts for a synthwave arrangement. Ste Ingham and The Encounter (aka Nigel) are two community members who are well-known for their synthwave tutorials (making them arguably 'key figures' [Rice & Ruskin, 2012, p.304]).

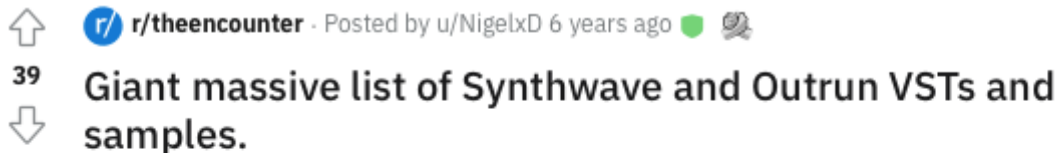


Have you seen ste ingham/ retro thunder vids on YouTube? His tutorials are really great and cover all the bases



16 Reply Share ...

Fig 5.57 [Reddit Screenshot] 'Have you seen Ste Ingham [...]' (Anon, Reddit, 2019).



39
Giant massive list of Synthwave and Outrun VSTs and samples.

What's up guys, my name is Nigel and you guys probably know me as [The Encounter](#) and I [make Synthwave/Outrun-ish tutorials on YouTube](#).

I'm gonna share with you the VST *essentials* to making your retro sound, both free and paid. Let's go!

Fig 5.58 [Reddit Screenshot] 'Giant massive list [...]' (The Encounter aka NigelxD, Reddit, 2016).

Ste Ingham created synthwave music tutorials in 2017, with his popular 'Synthwave Sessions' and 'Synthwave Sounds' series. Both sets of tutorials exist on YouTube, with 20+ videos for 'Synthwave Sessions' and 9 videos for Synthwave Sounds. Of his 'Synthwave Sessions' videos, his top five most watched tutorials (to date, June 2023) are 'Melodies' (Ste Ingham, 2017c), 'Snare' (Ste Ingham, 2017b), '80s Vocals' (Ste Ingham, 2017i), 'Structure' (Ste Ingham, 2017d) and 'Mixing' (Ste Ingham, 2017h). Other tutorial titles of this series include basic layering, transitions, basic EQ, using effects, movie vocals, templates/workflow and reverse reverb. The 'Melodies'³⁵ video is particularly interesting in documenting how harmonic choices are made by synthwave creators, with Ingham presenting an accessible method of chord and melody creation through the piano roll on FL Studio. He consistently avoids names of chords (though does say major and minor on occasion), does not recognise semitones by this term (even when counting them) and only makes brief reference to suspended chords (preferring instead to call these 'dreamy' or 'synthwave' chords). He assures the watcher that you do not need 'musical experience' to make synthwave, and that his instructions will remain as 'simple as possible'. This is despite his own knowledge of music theory, which he avoids using the language of to make his videos as accessible as possible. His pedagogical approach in the tutorials is purely through his DAW (which is

³⁵ 'Synthwave Sessions 03: Writing Melodies' (Ste Ingham, 2017c) is available from: <https://www.youtube.com/watch?v=WlaSQaa9x8Y&t=2s>.

shown fully as a screencast), and in the 'Melodies' video, demonstrates creating musical parts purely through the piano roll on FL Studio.

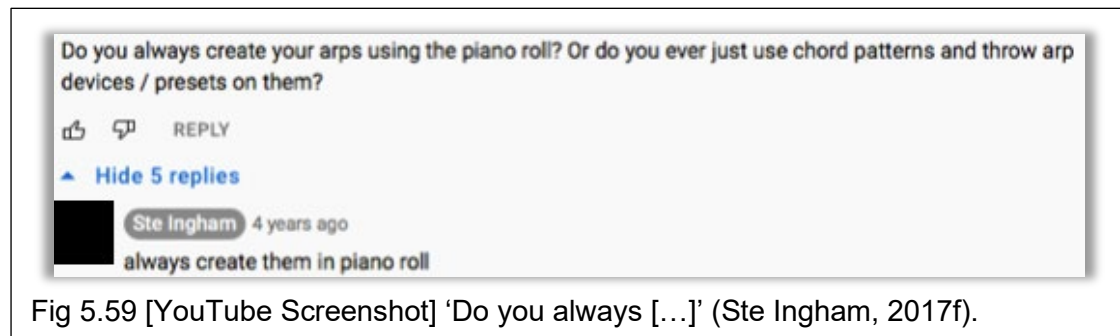


Fig 5.59 [YouTube Screenshot] 'Do you always [...]' (Ste Ingham, 2017f).

Whilst some synthwave creators do have backgrounds in performance or possess performance skills, it is common for the piano roll to be used ludically to make harmonic and melodic parts, and particularly by those without music theory or music performance skills.

Instead of focusing on composition in a music theory sense, synthwave tutorials (by Ste Ingham or The Encounter, for example) are DAW-focused or synthesis based. Ingham's 'Tom Fills' (Ste Ingham, 2017a) tutorial for example, discusses DAW-specific methods in treating tom fills (with pitch shifting, panning and velocity). His 'Snare' (Ste Ingham, 2017b) tutorial instructs on how to use gated reverb, white noise, EQ, as well as suggesting suitable plugins for snares such as the Aly James (a Simmons simulator). His 'Q+A 1' (Ste Ingham, 2017e) suggests plugins for synthwave songs such as Sylenth1 (Lennar Digital), Synth1 (Ichiro Toda), Dexed (Digital Surburban) and Diva (U-He). His Q+A video was interesting to me for use of language, which on occasion presented as quite gendered when Ingham referred to question-askers as 'he' or 'another guy'³⁶. This is something I noticed of one synthwave Facebook group too, where question-askers would address the group as 'synthlords' or 'fellas'. This observation reflects more widely issues of representation within synth circles and networks of music producers, extending beyond the synthwave community directly. For example, when conducting audio experiments for this chapter, I watched some of Arturia's official tutorials (presented by women) for their virtual synths such as the CS-80V and the Prophet-5 V. Despite some comments in the defence of the presenters, there were more than a few sexist comments made on these videos.³⁷

³⁶ 'Synthwave Sessions 05: Q & A Part 1' (Ste Ingham, 2017e) is available from: https://www.youtube.com/watch?v=sdI4QwiX_0M&t=8s.

³⁷ Arturia Tutorial CS-80 available from: https://www.youtube.com/watch?v=3EBZb_gut6c&t=959s (Arturia, 2022a) Arturia Tutorial Prophet-5 V available from: <https://www.youtube.com/watch?v=aOQQajraVMM&t=17s> (Arturia, 2022b).

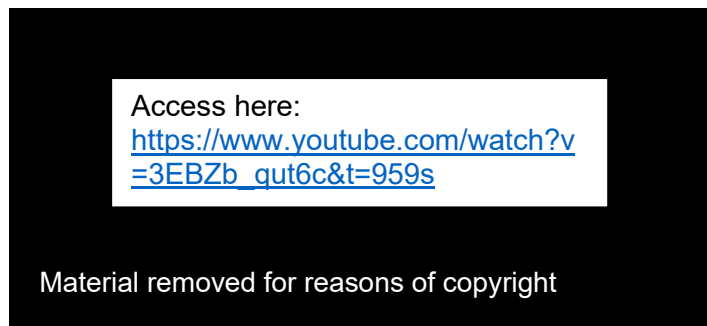


Fig 5.60 [YouTube Screenshot] 'Tutorials | CS-80 [...]'.
Fig 5.61 [YouTube Screenshot] Comments on 5.60 Video.

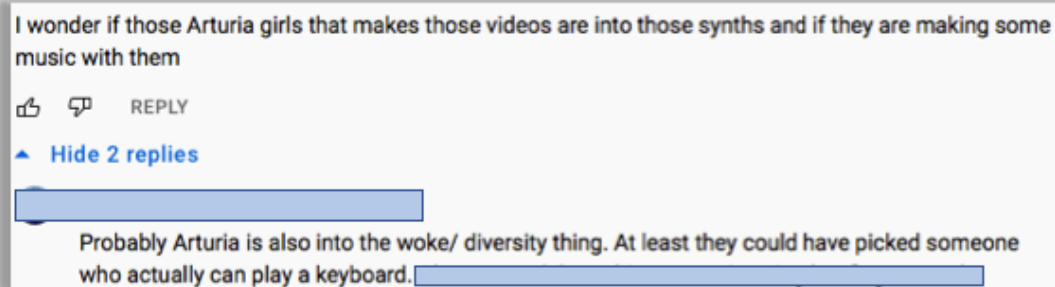


Fig 5.62 [YouTube Screenshot] A comment on 5.60 Video.

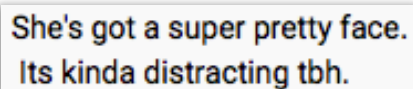


Fig 5.63 [YouTube Screenshot] 'Tutorials | Prophet-5 V [...]'.
Fig 5.64 [YouTube Screenshot] Comments on 5.63 Video.

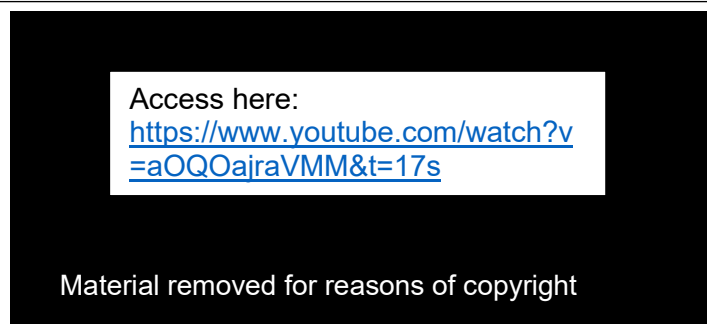
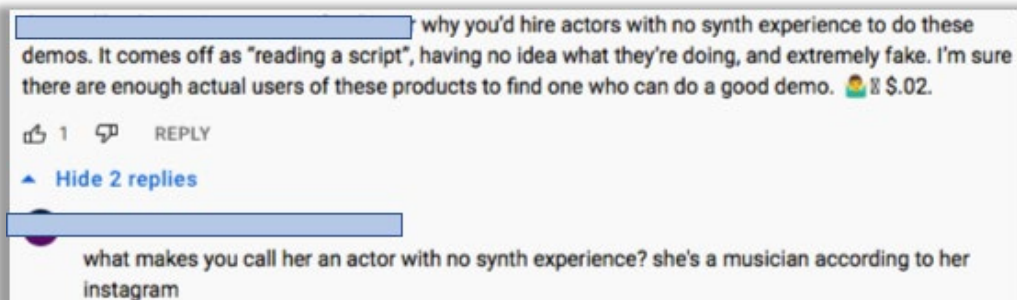


Fig 5.64 [YouTube Screenshot] Comments on 5.63 Video.



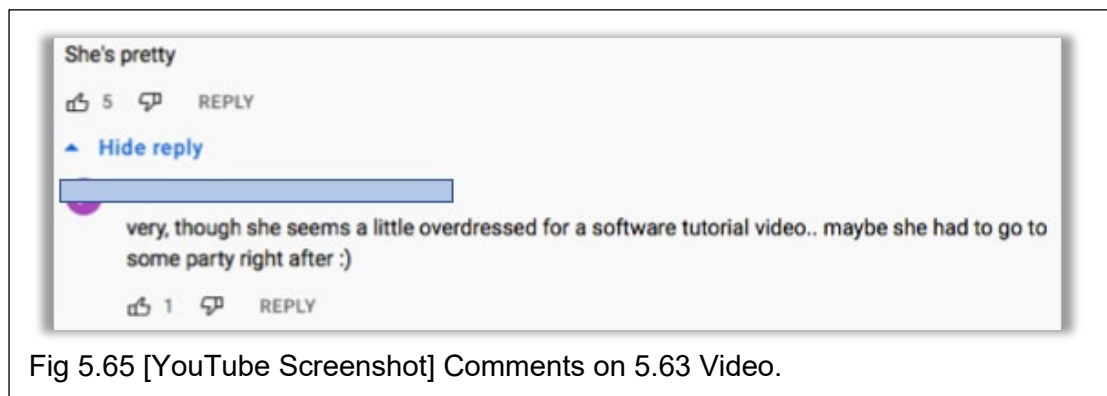


Fig 5.65 [YouTube Screenshot] Comments on 5.63 Video.

As a woman myself, I was pleasantly surprised to find female presenters demonstrating these synths, and was glad to be supporting a company (Arturia) looking to improve the representation of women and synths. However, when reading some of the comments on these videos, and reflecting on some of the gendered language within the synthwave community, I felt a great deal of empathy for female synthwave members who may be accessing these resources and feeling excluded. Later chapters explore issues of gender within the synthwave community more directly, but I included this discussion here because it formed part of my experience when conducting audio experiments for this chapter.

Synthwave creators approach sound design to all degrees, i.e. they may design sounds from “scratch” with virtual synthesizers like Serum, they may take virtual legacy synths as starting points for editing and creating their own sounds, or they may use synth presets. These options do not depend entirely on sound design ability, and are too a general consideration for the synthwave creative process with relation to time, inspiration, experimentation, song aim and concept, etc.

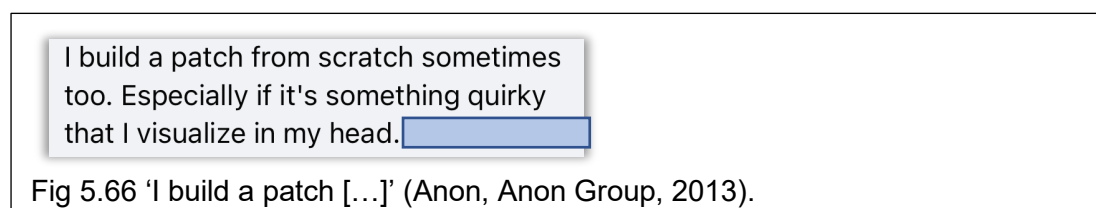


Fig 5.66 ‘I build a patch [...]’ (Anon, Anon Group, 2013).

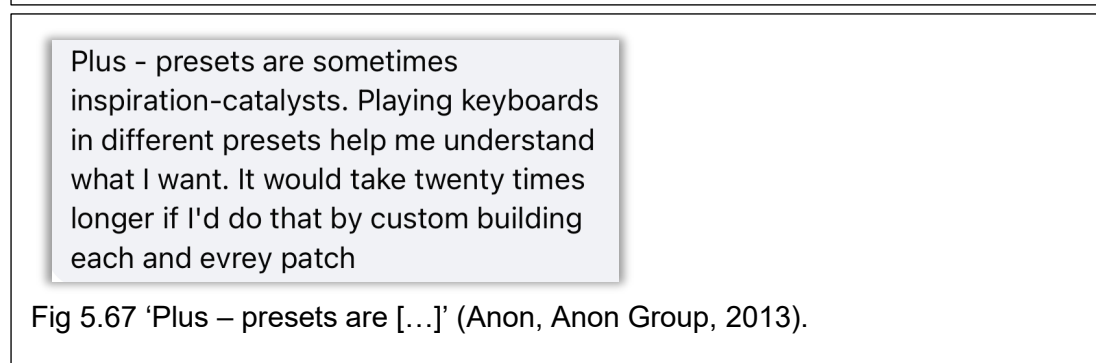


Fig 5.67 ‘Plus – presets are [...]’ (Anon, Anon Group, 2013).

I feel you on the preset stance. I will scour for great presets and am totally satisfied with making minor tweaks and some people are in love with sounddesign. I feel like there is no right or wrong way as long as the finished product is great. I'm learning a little about sound design but 99% of the sounds on my songs are presets.

Fig 5.68 [YouTube Screenshot] 'I feel you on the preset stance [...]' (Anon, YouTube, 2020).

Many community members will save and share their patches (i.e. a virtual synth setting edited by them which they have saved as a custom preset). This is one example of how the community support each other and share resources, which has the additional benefit of allowing newcomers to engage with the creative process of synthwave without the barrier of sound design knowledge.

wonder...maybe, we - collectively as a group - could make presets for the most common free synths. By instruments. Synth basses. Pads. Junoesque leads. Admin chooses the best 128 of each instrument. Or less if there are only a few. Goes into a synth1 bank as an example. Free banks for beginners and the rest alike. That would be cool.

Fig 5.69 'wonder...maybe, we – collectively [...]' (Anon, Anon Group, 2018).

It is community activity such as this which lead to creators being formally asked to create synthwave sound libraries by companies, such as the Synthwave FLEX Library (free with a copy of FL Studio 20.5) or Spire's (Reveal Sound) bundle of presets which makes available 'Synthwave Vol.1' and 'Synthwave Vol.2' (both costing \$35 dollars each for the full volume pack). In my interview with artist Sunglasses Kid (Edward Gamper, 2019) he admitted to having been approached by a sample library company to make one, which he declined, though he knew of synthwave artist Highway Superstar (aka Alex Karlinsky) having made one. Massive and Serum also have their own set of synthwave presets available for purchase.

Material removed for reasons of copyright

Fig 5.70 'Massive X Synthwave'
<https://www.loopmasters.com/genres/139-Synthwave/products/9762-Massive-X-Synthwave>.

Material removed for reasons of copyright

Fig 5.71 'Replica Serum Synthwave Presets'
<https://splice.com/sounds/modeaudio/replica-serum-synthwave-presets>.

Material removed for reasons of copyright

Fig 5.72 'Reveal Sound'
https://www.reveal-sound.com/store/product/Synthwave_Vol2.

Material removed for reasons of copyright

Fig 5.73 'Synthwave for Flex'
<https://www.image-line.com/fl-studio-news/flex-synthwave-library-free/>.

There are also companies who have asked synthwave artists to make official synthwave tutorials for their platforms, such as Sonic Academy and their work with artist Timecop1983 ('How to Make Synthwave with Timecop 1983 – Playthrough' Sonic Academy, 2015) and The Midnight.

Section 5.1 has demonstrated my initial synthwave style parameter experiments and situated these within the context of the online synthwave community, providing an overview of their creative processes through findings from my virtual ethnography. Section 5.2 provides a case study analysis of one synthwave song, 'Back to You' (2018) by Timecop1983.

5.2 'Back to You' (2018) by Timecop1983 – Song Analysis

'Back to You feat. The Bad Dreamers' (2018) was written and produced by Timecop1983, a well-recognised artist within the synthwave community. The topline for 'Back to You' (2018) was written and performed by artist The Bad Dreamers (Leenaerts, 2019), since the former is not a singer. The song is track three of Timecop1983's album *Nightdrive* (2018) and has been included on multiple synthwave playlists on Spotify. Real name Jordy Leenaerts, Timecop1983 is primarily a music producer, a common creative role of creators in the synthwave community. Like many in the community, Leenaerts creates music with software synthesizers, which he revealed in interview (to Retro-synthwave.com) is his preference over hardware synths (this is despite him owning some). When comparing software to hardware, he alluded to logistics, describing how software is 'so much faster to work with' (Spacemaster, N.D).³⁸ I also had the opportunity to interview Leenaerts about his work as Timecop1983, and his comments are included throughout my analysis of 'Back to You' (2018). A total of two interviews were conducted with Timecop1983, and these are credited as (Leenaerts, 2019) and (Leenaerts, 2020). Before I present my analysis of 'Back to You'

³⁸ Full interview available from: <<https://www.retro-synthwave.com/music/retro-interviews/timecop1983-interview>>.

(2018), I provide a graphic representation of the song's structure and arrangement (Table 5.3), to establish the names of song components I will later refer to in analysis.

Table 5.3: 'Back to You' (2018) A Structural Representation Overview											
	Intro [0'00-0'11]	Verse 1 [0'12-0'31]	Bridge [0'32-0'52]	Chorus [0'53-1'25]	Verse 2 [1'26-1'46]	Bridge 2 [1'47-2'06]	Chorus 2 [2'07-2'28]	Chorus 3 [2'29-2'51]	Chorus 4 [2'52-3'35]	Instrumental [3'36-3'56]	Outro [3'57-4'28]
Main Vocals											
Backing Vocals											
Synth 1											
Synth 2											
Synth 3											
Synth 4											
Synth 5											
Synth 6											
Synth 7											
Synth 8											
Synth 9											
Synth 10											
Synth 11											
Electric Guitar											
Bass Synth											
Cymbals											
Kick & Snare											
Toms											

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Table 5.3 shows a male vocal (shown in red) occupying a large proportion of the song. Timecop1983's songs are in fact usually instrumental (as is the case with much synthwave), with this song being one of his few which includes vocals. Vocals, plus the drums (shown in blue), are present in most of the song's sections. The drum patterns are typical of synthwave, performing a four-to-the-floor pattern³⁹ throughout. Leenaerts confirmed in interview that the kick was created with an Arturia Spark drum machine, whilst the snare with Aly James VSDSX, a virtual drum plug-in (Leenaerts, 2020). The *ostinati* bass synth (shown in purple) is present throughout the whole song. A short hearing of an electric guitar melody (shown in grey) is present at 3'36. Though not a frequent occurrence within the synthwave

³⁹ Four-to-the-floor refers to ¼ note drum hits (kick and snare) which adhere to a 4/4 time signature.

style, electric guitars are occasionally present within arrangements for short melodies.⁴⁰ Guitars are voiced by either guitars themselves or synths with a guitar timbre/voicing. Leenaerts confirmed in interview that ‘Back to You’ (2018) uses a guitar-voiced synth ‘from a Kontakt library’ (Leenaerts, 2020). The arrangement of ‘Back to You’ (2018) is populated largely by synths, eight in total according to Leenaerts (2020). As Table 5.4 shows, I suggest twelve different synths (thirteen if the guitar-voiced synth is counted) as present across the song. This demonstrates how automated production effects (e.g. LPF and HPF filters, use of LFOs etc) can create many different timbres that present as new parts entirely. In particular, Leenaerts described how the song is ‘drench[ed] [...] in reverb!’ (Leenaerts, 2019), which explains why some parts were difficult to isolate and distinguish during analysis.

Leenaerts commented on hardware synths that he used: ‘I used my Roland Juno-106 and Roland JX-10 for some parts [...] [and] the blade runner type pad with lots of attack that comes in around 0:32min [is an] Oberheim Matrix-1000’ (Leenaerts, 2020). He did not clarify which parts were by the Juno-106 or the Roland JX-10, but there is a strong chance that Synth 9 (a pad) is the Juno given that it is a common choice for pads. For a more detailed review of parts, see Table 5.4 below, and my section-by-section analysis of the song which follows.

Table 5.4: Instrument Parts ‘Back to You’ (2018)	
Instrument & Timecode	Style Parameter/Music Production
Synth 1 0’00	Style Parameter 2b ‘Brassy’ Arp Synth 1 was created with the PG-8x plug-in, which is modelled on the Roland JX-8P (1985) hardware synth. It enters with an automated LPF panned off-centre-right. It is clearly heard by 0’05. Its pitch range is eb3-eb4.
Synth 2 0’03 (heard most clearly at 0’08)	[Two note alternating counter melody]. Synth 2 enters distantly panned off-centre-left in the introduction at 0’02 with an automated LPF applied. It has a pitch range of g4-ab4.
Synth 3 0’32 Oberheim Matrix-1000.	Style Parameter 3a Detuned Saw Lead Synth 3 enters at 0’32 panned off-centre-left, and has a relatively slow attack. It has detune applied, and its starting note is eb4.
Synth 4 0’46 (heard most clearly 0’52) Synth “pulsates”.	Synth 4 is an ascending 16ths melody (f4-g4-ab4-bb4) which enters with an automated LPF (including an LFO automating the resonance), which can be heard clearly at 0.48. Synth 4’s pitch range is f4-bb4.
Synth 5 1’07	Synth 5 is a short descending 3-note melody. The VCA has a short release as the sound stops abruptly. High pass filtering is applied to this synth. Synth 5’s pitch range is c5-f5.
Synth 6 0’53 (heard most clearly at 1’33)	Style Parameter 4 Pad Synth 6 has an organ-like sound character, and is likely square or triangle wave based. It has high pass filtering applied, and a pitch range of db4-eb5.
Synth 7 2’07 (heard faintly at 2’08 and clearly at 2’54)	Synth 7 is a new chorus melody, and it’s melodic contouring is largely descending. Its timbre is the Saxlab plugin. The slow attack of the VCA makes it sound late coming in. It has a pitch range of c4-ab4.

⁴⁰ An electric guitar melody can be heard in The Midnight’s ‘America 2’ (2021) (The Midnight, 2018) for example. It is accessible from: <<https://www.youtube.com/watch?v=PVAelZlPop8>> (Accessed April 2023).

Synth 8 3'37	Synth 8 is a melodic “airy” synth which sounds flute-like. It has a relatively slow attack (VCA) and high filtering applied. It has a pitch range of bb3-c5.
Synth 9 3'57	Style Parameter 4a Lush String Pad Synth 9 is a slow rhythm pad synth, heard most clearly at 4'03 and 4'19. The pad is high pass filtered and has a slow attack and slow release. It has a pitch range of f5-eb6.
Synth 10 4'00	Style Parameter 3a Detuned Saw Lead Synth 10 is a melodic synth first heard at 3'57. It has detune and delay applied, and a pitch range of c3-bb3.
Synth 11 0'53	Style Parameter 1a Synth 11 is the bass synth doubled an octave higher, with a pitch range of db3-f4. An LFO modules the cutoff of the VCF with a 16 th rate synced to tempo.
Bass Synth 0'00	Style Parameter 1a 'Poly Bass' The bass synth uses an <i>ostinato</i> pattern throughout the whole song which consists of 16ths and 8ths. It's pitch range is db2-f2. An LFO modules the cutoff of the VCF with a 16 th rate synced to tempo.
Electric Guitar 3'36	Style Parameter 7 Electric Guitar Melodies The electric guitar is a Kontakt Library Guitar sound processed through Amplitube (an amplifier simulator). Musically, it is an ascending electric guitar melody with a pitch range of bb3-f4.

'Back to You' (2018) Introduction (0'00-0'11) & Verse 1 (0'12-0'31)

'Back to You' (2018) is in the key of F minor. The first synth heard in the song is synth 1, treated with an automated LPF that changes its timbre as it is heard throughout the introduction and verse (SP2b Brassy Arp). The bass synth performs an *ostinato* pattern throughout the song, using a combination of 16ths and 8ths (SP1a). Slower tempo choices (around 75-120bpm average) are common to synthwave to accommodate these faster rhythms (and *ostinati* patterns), and this is notable of 'Back to You' (2018), which is 90bpm (SP5). The bass synth utilises a harmony of i-i-VI-VII (in F minor this is F minor, Db major and Eb major) throughout the introduction, verse and bridge, demonstrating a repetitive harmonic structure which remains unchanged until the chorus. The synth bass is affected with an LFO which modulates the cutoff of the VCF with a 16th rate synced to tempo. This, along with the bass synths VCA settings (ADSR) gives it its “bouncy” gated type of sound (hear in the first 20 seconds of the song). The song lacks acoustic instruments entirely apart from the vocals. The lead male vocal part is heavily processed with compression (encompassing a large proportion of the stereo field when present) and layered with a reverse vocal effect (hear at 0'12 and 0'22). Artist Timecop1983 confirmed in interview the drums were 'one-shot samples, vsti drums [...] and synthesized drums' (Leenaerts, 2019) (SP5). Other synths heard in the introduction and verse 1 function more as sonic textures, such as synth 2 which is heard distantly panned left.

'Back to You' (2018) Bridge (0'32-0'52) & Chorus 1 (0'53-1'25)

At the bridge, synth 2 is replaced by synth 3 (heard left of the stereo field). Synth 1, as a result of the automated filter, here emphasises mid-range frequencies; making it particularly noticeable in the stereo field (SP2b). Use of these, including LPF, HPF and LFOs are often used to provide diversity within the sonic palette of a repetitive melodic synth part. This is true of synth 1's melodic content, which identically repeats throughout the entire song. Synth 4 gradually enters (0'46) throughout the bridge panned left, heard most clearly at the approach of the chorus. It sounds like it is treated with a resonant filter sweep (through a gradual LPF with the resonance automated). At the entrance of the bridge, a kick drum playing $\frac{1}{4}$ notes enters, with the pattern changing at the chorus to $\frac{1}{4}$ note drum hits which alternate between kick and snare.

As the chorus enters, synth 1 appears to disappear and is only heard faintly at 1'10 and clearly at 1'20. It is panned off-centre right (SP2b). The bass synth is doubled at octave (named synth 11 and also treated with an LFO), and changes from an *ostinato* pattern with 16ths and 8ths to only 16ths (SP1a). Synths 3 and 4 are not heard in this section (the chorus), and synth 2 appears once at 1'14 (heard faintly in the mix). Two new synths, synth 5 (a short descending melody, heard first at 1'07) and synth 6 (synth chords) are added. Synth 6 is what Timecop1983 referred to as 'filtered chords', referring to the HPF effect heard. Synth 6 performs a suspended chord, Dbsus2, and a minor seventh chord, Fm7 (SP4). Drum fills are heard in the chorus at the end of vocal phrases, with a gated reverb effect applied heavily to these tom drums (SP5). Chorus vocals are equally as compressed as in the verses and dominate much of the stereo field, which is due to use of compression, double tracking and mid-range EQ boosts.

'Back to You' (2018) Verse 2 (1'26-1'46) & Bridge 2 (1'47-2'06)

At the entrance of verse 2, synth 1 is again heard with a LPF applied (panned right) (SP2b). It appears quieter now with the addition of the drums, which have retained their $\frac{1}{4}$ note pattern alternating the kick and snare from the chorus, adding further tom fills intermittently (SP5). The drums feature prominently in the mix due to compression. This is a typical feature of synthwave drums, which take some musical parentage from EDM.⁴¹ The drum patterns themselves also take from classic 1980s drum machine patterns, such as those by the LinnDrum or LM-1.⁴² The reversed vocal is again layered with the lead vocals (heard on lyrics 'should I' [1'37] and 'pour' [1'42]). Backing vocals are added, which have a $\frac{1}{2}$ time echo on them (heard on 'but you slipped away' [1'49], 'in the midnight breeze' [1'51] and 'my

⁴¹ Halick described the use of compression within EDM (Halick, 2016, p.4).

⁴² Examples of LinnDrum patterns are accessible from: <<https://www.youtube.com/watch?v=ofKyPTXt5co>> (SynthMania, 2015).

heart would freeze' [1'57]). Synth 6 (the filtered chords) continues throughout verse 2 and bridge 2, heard faintly but most clearly at 1'36. Synth 5 (a short descending melody) is heard faintly at 1'28 and 1'38, continuing throughout the bridge (which begins at 1'47) where it is heard clearly at 1'49 and 1'53. In bridge 2, synth 1 is practically indecipherable until 2'00, where it is panned right of the stereo field. This is halted by a master filter effect which applies to all instruments except the vocals, which cuts high frequencies (through a LPF) before returning these frequencies (by opening the LPF) for chorus 2.

'Back to You' (2018) Choruses 2 (2'07-2'28), 3 (2'29-2'51) & 4 (2'52-3'35)

Chorus 2 is half the length of chorus 1 and alters synth 1's production effects, which makes more apparent the notes eb4-c4-bb4-c4-ab3 due to a resonance filter sweep. This creates what sounds like a new descending melody but is in fact still synth 1. This demonstrates how filters can variate melodies sonically without changing the notes harmonically (SP2b). Synth 1 is accompanied by synth 2, 3, 6, the bass synth, kick, snare, toms and new addition synth 7. Leenaerts (2020) affirmed what I had named synth 7 he referred to as the 'sax patch' – a timbre of synth chosen for its likeness to a saxophone.

Chorus 2 leads straight into a drum-less section (named chorus 3) which features most prominently the backing vocals (repeated lyrics 'back to you') and the bass synth (still doubled at octave). Present also are synth 2 (heard faintly), synth 3 (SP3a) and synth 5 (a short descending melody, heard at 2'42), and multiple backing vocals (harmonies on 'back to you'). Before the entrance of chorus 4, a one bar break is heard (anticipatory of the final chorus) where the release of synth sounds linger, especially the detuned nature of synth 3 (hear at 2'51). Chorus 4 includes all previously heard parts (though synth 5 is only heard once and faintly at 2'56; whilst synths 2 and 3 are practically indecipherable because of the thickened musical texture and heavily applied reverb).

'Back to You' (2018) Instrumental Section (3'36-3'56) & Outro (3'57-4'28)

The instrumental section which follows presents an electric guitar melody as lead instrument, which is accompanied by synth 3, 4, 6 and 8. The outro includes some backing vocals (double tracked and panned off-centre), with synth 5 (faintly heard at 4'00) synth 6, synth 9 (SP4a), new melodic synth (named synth 10) and the bass synth. The song ends with synth 9 and 10's final notes elongated and lingering with detuning effects to fade.

'Back to You' (2018) Analysis Summary

Parameters SP1a, SP2b, SP3a, SP4a, SP5 and SP7 were shown in my analysis of 'Back to You' (2018), and with these, this song demonstrates an example of how synthwave creators engage with music technology to privilege 1980s aesthetics. For example, the use of LPFs were prominent throughout the song, a technique which is performable either through automation on the DAW or with LFOs on a synth. Use of this technique mimics analog hardware synths which had low pass filter modules (which could alter sound through turning the low pass filter rotary knob), e.g. the Minimoog (1970), the Korg MS-10 (1978), Yamaha's CS-80 (1977). With 'Back to You' (2018) specifically, synth 1's timbre is especially important, since it loops a 4-bar phrase which never alters (i.e. varies its musical pitches) throughout the entire track. Through use of automated filters, synth 1 is able to maintain melodic interest through its ever-changing timbre.

The song is 90bpm, a typical choice for synthwave in that it accommodates the rhythmic *ostinati* which is commonly used for the synth bass (i.e. SP1a). This rhythmic *ostinati* is present across the bass synth, synth 11, and synth 1, and use of these rhythms offset the slower tempo of 90bpm. Synthwave's *ostinati* 8ths or 16ths basslines are directly from 1980s pop music, in line with their privileging of 1980s musical aesthetics. The reason songs of this era had basslines like this is due in part to the affordances of digital (and previously analog) sequencers from the time (Vail, 1993, p.184). If unaltered, analog sequencers' internal clocks would run continuously, 'producing incessantly repeated patterns of eight-notes' (Pinch & Trocco, 2004, p.242). Use of an LFO modulating the cutoff of the VCF on the bass synth and synth 11 (the bass synth at octave), paired with VCA (ADSR) settings also give the bass its characteristic "bounce" or gated style of sound.

In 'Back to You' (2018), synths were not only utilised to form melodies or basslines, but to provide sonic and musical texture. This meant some synths had little melodic content (synths 2, 3, and 9) and were often difficult to isolate in the mix. Their role, however, was different to that of more overtly melodic synths, in that they provided support to lead parts and 'filled in' missing frequencies from the spectrum.⁴³ Significantly, many of the synths chosen by Timecop1983 for the song mimic synth timbres from the 1980s, as he explained in interview. Through a mix of hardware and software, synths heard in 'Back to You' (2018) include the Korg Polysix, Roland Juno-106, Juno-60, Roland JX-10 and Oberheim Matrix-1000. Use of these 'legacy' synths is a vital method used by synthwave creators to privilege and convey famous timbres of the 1980s.

The 'sax patch' style synth (synth 7) heard in chorus 2 also demonstrates

⁴³ For a definition of mirrored equalisation please refer to the Music Production Glossary.

synthwave's privileging of 1980s aesthetics. Since the saxophone was a popular solo instrument of pop songs in the 1980s,⁴⁴ it is a widespread choice by synthwave creators. Since synthwave creators are quite often producers rather than performers (or instrumentalists), software versions of saxophones are often used on synthwave songs, as with 'Back to You' (2018). One notable exception to this is synthwave artist, The Midnight, who have a session saxophonist for live shows and use live saxophone on their recorded albums.

The drums used in 'Back to You' (2018) are programmed virtual drums (SP5). Namely, the snare used was an Aly James VSDSX, which emulates the The Simmons SDS-V Drum Brain, a 1980s analog drum synthesizer. This again shows synthwave creators using timbres of music from the 1980s, supporting their privileging of this decade. They also emulate mix styles from the 1980s, evident by the gated reverb on 'Back to You's (2018) snare (heard for example on Phil Collins' 'In The Air Tonight' [1981]).

The use of suspended and seventh chords was also evident in 'Back to You' (2018) (heard in chorus 1, 2, 4 and the outro section). Many in the synthwave community recommend the use of suspended and seventh chords for synthwave-styled songs, characterising their sound as "dreamy". This may relate to many 1980s pop songs which used suspended or seventh chords, and specifically on synths.⁴⁵ The reason for this is related to emerging capabilities of synths in the late 1970s and early 1980s, when polyphony was emergent and advancing year on year. As polyphony advanced from 4-voice and 5-voice (such as the Juno 4 [1979]) to 6-voice (the Korg Polysix [1981], the Juno 6 [1982]), musicians were keen to use multiple voices (notes) at once; having previously been restricted to either monophony (one note at a time) or 4-voice (which only just to say facilitated a chord and one bass note). With 6-voice polyphony, one could play two notes in the bass and four notes in the treble (usually suspended or seventh chords, as opposed to simple 3 note triads). Accordingly, some virtual instrument emulators of 1980s synths have voice restriction settings, designed to simulate the experience of having only 5-voice (for example on the Prophet-5 emulator, the Repro-5) and 6-voice (on the Juno 6 emulator).

⁴⁴ Examples of saxophone solos in 1980s pop songs include: 'Rio' (1982) by Duran Duran, available from: <<https://www.youtube.com/watch?v=nTizYn3-QN0/>> (Duran Duran, 2018) (Accessed April 2023), 'Careless Whispers' (1984) by George Michael, available from: <<https://www.youtube.com/watch?v=izGwDsrQ1eQ>> (Georgemichael, 2009), 'Englishman in New York' (1987) by Sting, available from: <<https://www.youtube.com/watch?v=d27gTrPPAyk>> (Sting, 2011).

⁴⁵ Examples of these sorts of chords can be heard on Visage's 'Fade to Grey' (1980) (hear at 0'33): <<https://www.youtube.com/watch?v=eUt75E7jiTg>> (mima14031985, 2016), as well as the introduction to Van Halen's 'Jump' (1984): <<https://www.youtube.com/watch?v=eO1dWQJZLBg>> (Doctor Mix, 2020) and Pet Shop Boys 'West End Girls' (1984): <<https://www.youtube.com/watch?v=kKUaYvGMj8Q>> (Paul Adachi, 2014). See also for a demonstration of seventh chords on a JX-3P (1983): <<https://www.youtube.com/watch?v=0cU4XjvBOJI>> Alex Ball (2019).

Given this, the use of seventh and suspended chords demonstrates another stylistic method used by synthwave creators to communicate an aura of the 1980s.

One important thing to note about 'Back to You' (2018) is its use of vocals being unusual rather than the norm for synthwave. Typically (and unless they come from the popwave subgenre, discussed in Chapter 7), synthwave songs are instrumental, with a good example being Miami Nights 1984's 'Ocean Drive' (2012). This is an extremely popular synthwave song and would have made an excellent case study piece for this chapter, but at the time of writing I was engaging with a lot of Timecop1983, Gunship, Kavinsky, Electric Youth and NINA, and ultimately chose a Timecop1983 song to analyse. Jordy Leenaerts is also a very active member of the synthwave community, and accessible for me to contact for interview. This factored into my decision, as I wanted the comments of the songwriter in addition to my own analysis.

5.3 Composition Commentary 'Drift' (2019)

The audio experiments shown in Table 5.2 demonstrate core style parameters of synthwave, which in addition to inspiration from the listed synthwave song examples (in Section 5.2) and case study piece 'Back to You' (2018), were the basis for creating 'Drift' (2019). It should be noted that I do not consider 'Drift' (2019) a release-ready standard, it is created to a demo standard which draws together and extends my style parameter experiments. With 'Drift' (2019), I demonstrate my creative process in writing synthwave.

I decided the song would be entirely diatonic, based on virtual ethnography which revealed how many creators use 'scale highlighters' (see YouTube video 'FL Studio Tutorial – Scale Highlighting', Jon Audio, [2018]) in DAWs to transcend issues of lacking music theory knowledge. With this, I chose the key of E major. It is my observation also that synthwave songs are typically diatonic, with some exceptions in the darksynth subgenre (explored in a later chapter). Whilst I have a background in music performance (including a formal music education which included music theory) I wanted the song in keeping with synthwave traditions of diatonic harmony, and hence limited my choice of notes to my chosen scale and key of E major. This is unlike my usual composition *modus operandi*, as I am actually very fond of using borrowed chords (e.g. borrowing chord 5 from the parallel key).

My choice of synths for 'Drift' (2019) reflects much of my virtual ethnography findings, in how synthwave creators engage with music technology of the 1980s. To achieve this, I used mainly the Arturia collection for my song's synth timbres. Arturia 9 comes with 33 software synthesizers, complete with skeuomorphic interfaces for each synth and collectively over 9000 presets. The CS-80, DX7, Prophet-5, Juno 6, Jupiter 8, SQ80, Korg

MS-20, are just a few examples of software synthesizers included. Of Arturia 9's 33 synths, I used mostly the CS-80, Prophet-5, Juno 6 and Jupiter 8 (I also used some of Logic's built-in synths). Based on my virtual ethnography that synthwave songs are typically instrumental (aside from the popwave subgenre which is explored in Chapter 7), I decided 'Drift' would be instrumental. As such, I would be making significant use of Arturia synths and particularly in choosing one for the lead (SP3).

I intentionally chose a tempo of 98bpm, based on virtual ethnography and my own analysis which indicated that synthwave songs are typically 75-120bpm on average. These tempi better accommodate faster rhythms (e.g. 8ths and 16ths), especially synthwave's synth bass (SP1a) and arp (SP2), both which typically use 8ths and 16ths rhythms. I was very satisfied with Audio Experiment SP1a, and having saved this setting (as a patch), chose to use it in 'Drift' (2019). My 'plucky' synthwave bass (SP1a) used (diatonic notes with) 16ths, with Arturia's Prophet-V 5 (a flagship analog synthesizer) as a timbre (in the absence of Arturia 9 having a Korg Polysix). Using the preset 'Lotta Bass' as a starting point, I edited the amplitude envelope to achieve the pluck of SP1a. I set a saw wave for osc 1 and a square wave for osc 2, with the pulse width turned up full to 100%. The level of pluck mostly relied on my decay settings, which for the amplitude envelope was 377ms. Prophet-V's built-in LPF was set with a cutoff at 92.3hz and resonance of 0.84 (8.4%). I also applied a small amount of detune, along with some Juno-6 chorus (facilitated by the plugin). An example tutorial for SP1a is Ste Ingham's 'Synthwave Sounds 03: Polysix Bass' (Ste Ingham, 2017g), or The Encounter's 'FL Studio Synthwave Tutorial [...]' [watch at 14'00] (2015), or 'How to Make Synthwave with Timecop 1983' by Sonic Academy (2015).

My arp (SP2a) used a descending 8th note pattern, as I noticed that arps which used a range of melodic contouring (ascending and descending in the same arp for example) were too varied and needed more direct repetition to identify with synthwave. Synthwave arps are generally very minimalist, around 3-4 notes maximum. This felt somewhat restrictive for me as a performer, who was performing the notes into the DAW with a MIDI controller rather than programming them into the piano roll with the DAW pencil tool. I decided to agree synthwave tradition and chose only four notes for the arp, which I set as all descending (E, D#, B and G#). I varied these by alternating E and D# as the starting note of each descent (or bar in the 4-bar-phrase). I also made further edits to the velocity of each note to vary them and lessen their repetitiveness. In parts of the song, the arp is heard doubled at octave (its original octave plus one octave higher), a tutorial where this is discussed is 'Magical Arpeggiator Tutorial' (Synthwave Pro, 2022) [watch at 4'20]. A tutorial for writing arp parts in general is available from Ste Ingham, called 'Synthwave Sessions 03: Writing Melodies' (Ste Ingham, 2017c).

Through Logic Pro X's low cut frequency setting, various HPFs were automated across the arp throughout the song, most notable in the introduction at 0'00 (also heard at 1'37 and 2'36). This again, varied their repetitiveness through a gradual change in tone, rather than providing variation through pitch changes. As I wanted my filters to enact at particular points and did not want them essentially looping filter frequencies, this is why I did not use the LFO on the synth. An example tutorial video for enacting filters is 'Synthwave Sessions 21: Filters' (Ste Ingham, 2017l). I had initially chosen to use my brassy arp (SP2b) Audio Experiment (having saved this setting as a patch) as the timbre for my arp, but decided my 'plucky' arp (SP2a) Audio Experiment was more suitable for 'Drift' (2019) upon adding later components. This showed me a lot about parameter combination and balance, for example that brassy arps (SP2b) and brass pads (SP4b) provide too much in the way of brass timbres. Instead, brass pads pair more successfully with 'plucky' arps (SP2a), as do lush string pads (SP4a) (which is the combination I eventually settled on). An example tutorial for SP2b is Ste Ingham's 'Synthwave Sounds 01: 80s Brass Arp' (Ste Ingham, 2017f).

As well as my 'plucky' arp (SP2a) and 16ths bass (SP1a), I created a drone bass (SP1b). I was satisfied with the *Bladerunner* (1982) style that my Audio Experiment SP1b had, so I selected this as the timbre (Arturia's CS-80V with patch Unison Syn Bass) for my drone bass. I liked the pairing of my drone bass with my poly bass, which at points appear together (e.g. 2'00). In particular, the drone bass provided effective 'drop' moments (a common component of EDM songs) for the entrance of chorus sections (e.g. 2'00 and 2'39), establishing clear and effective section transitions. I ensured with EQ that these two parts would not impede each other by occupying the same frequency bands, and thus utilised mirrored equalisation. An example tutorial for SP1b is Ste Ingham's 'Synthwave Sounds 06: Kavinsky Bass' (Ste Ingham, 2017k).

Throughout the song, my arp (SP2a) and the lead (SP3a) alternate in being the 'lead', which is quite typical of a synthwave song. My lead is mostly in the E4 range (only at times in the E3), where the arp is in the E3 range. This separates their pitches, and in turn frequencies, which is often recommended by creators in the synthwave community to distinguish parts of a song. This phenomenon is demonstrated by Ste Ingham in his tutorial video 'Synthwave Sessions 03: Writing Melodies' (Ste Ingham, 2017c). My lead synth (SP3) was formed with Arturia's Jup-8 V (Jupiter 8) 'Jupiter Bass' patch. I chose two saw waves (with VCO-1 40% and VCO-2 60%). I applied the Jup-8's built in HPF, setting it as a 12dB filter at 715hz. I set my filter envelope to a fast attack (1ms), fast decay (902ms), sustain at 80% and slow release at 11.083s. I set my amplitude envelope (env2) with a fast attack (1ms), medium decay (3.383s), sustain at 68% and a slow release setting as 12.770s. I detuned the synth considerably, by applying finetune settings of +0.304st, and portamento

settings of 36.2ms. I assigned a sine LFO to the VCF, at a rate of 1/8 synced to tempo. I then applied a pitch shifter on Logic Pro X at 100% mix and automated the cents between -15 and +15 to drift the lead melody in and out of tune slightly. This is in fact where the song got its name from, and the phenomena reflects synthwave creators emulating analog synthesizers which would drift in and out of tune due to temperature issues by oscillators. An example tutorial for SP3 is The Encounter's 'FL Studio Synthwave Tutorials [...]' (The Encounter, 2013) or Another Monster Production's 'How to Make Synthwave in FL Studio' (2019). My lead's contouring is descending and ascending, often in arpeggiated form (or disjunct movements). This reflected my analysis of existing synthwave songs. I also made ample use of a semitonal pattern of notes (e.g. E-D# or G#-A) at the start of melodic phrases, as I found that this created a type of melodic tension throughout the song.

I created 4 pads in total for 'Drift', with Pad 1 (in the E2 range) being the main chord sequence (Esus2, E7, E5) with suspended and seventh chords. These styles of chords are important to the synthwave community when creating pads, who recognise their "dreamy" quality (likely due to their ambiguous harmony in the absence of a third). This is discussed by Ste Ingham in his tutorial 'Synthwave Sessions 03: Writing Melodies' (Ste Ingham, 2017c). The perceived "dreamy" quality is aided and furthered by amplitude envelope settings, with long attack and release times to allow chords to blur into each other. This was the case with my Pad 1, which had a fast attack time of 205ms, slow decay of 6.780s, sustain at 100% and medium release of 4.050s. I chose Arturia's Jun-6V (Juno 6) with a strings patch for Pad 1 (one saw wave only), due to virtual ethnography which revealed synthwave's affinity for 'lush strings' (which commonly refers to Juno strings). Use of Juno synths for strings is demonstrated in AdK Studio's tutorial 'How to Synthwave with freeware' (2020). A significant part of synthwave pad sounds are their heavy chorus effect. I applied Juno's built in chorus effect (setting I) to Pad 1 to achieve this. I again, applied detune, as this is common to synthwave songs for emulating analog synthesizers which drifted out of tune due to oscillator temperature. I also applied a small amount of portamento, as this is often used by synthwave creators to support a sense of 'movement' in their pads (or equally, other style parameter parts such as leads).

Often creators will derive their arps (SP2) from their pad chord (SP4) notes, copying and pasting notes from their chords an octave higher to form an arp melody. This is again, a minimalist and ludic technique used by creators which usually results in choosing notes which appear the most (usually the tonic and the dominant). Creators' also trial notes by ear through drawing them in (or moving them up and down) on the piano roll. This is demonstrated by Ste Ingham in his tutorial 'Synthwave Sessions 03: Writing Melodies' (Ste Ingham, 2017c). I didn't do this, taking a more performative approach to finding my arp melodies and pad chords by playing them on physical MIDI instruments (such as my MIDI

controller keyboard) or by using Logic Pro X's inbuilt keyboard. I on occasion used the pencil tool to draw in notes on the piano roll, when doubling parts at octave for example. Adding another octave to a part can be achieved on some of Arturia's synths (e.g. the Jup-8 V's range settings), but I felt I had more control over the octave when drawing it in to the piano roll, as I could readily and individually edit notes for their velocity, length etc.

A key element of the synthwave pad is its perceived "movement", which can be achieved through use of LFOs. This can be done on synth interfaces (such as Arturia's synths), but I used Logic Pro X's Autofilter, setting it to an LPF with a cutoff of 70% and a resonance of 25% (for both Pads 2 and 3). With the Autofilter, I set a triangle LFO to modulate the frequency of the filter at a rate of 2 bars (synced to tempo) for Pad 3, and set the filter at a rate of 4 bars (synced to tempo) for Pad 2. This gave the impression of the pad moving, in the sense that its' frequencies warble or might be perceived to rise and fall cyclically (hear in 'Drift' at 0'10). An example tutorial for this type of pad is Ste Ingham's 'Synthwave Sounds 05: Moving Pad' (Ste Ingham, 2017j). Pad 2 is a Juno 6 strings patch and is in the E5 range, and Pad 3 is a CS-80 'Damaged Pad Spacer' patch in the E4 range. I accentuated Pad 2's sense of movement by applying Chorus I and II on the Juno, which created a flutter effect (hear in 'Drift' at 0'03 panned slightly left). It was mostly Chorus II that achieved this. Pad 4 is the least important, acting literally as sonic padding (in the E3 range) for thicker sections of the song. It uses pad patches from Logic Pro X's EXS24.

My drums were created using a free LinnDrum plugin, and I used a four-to-the-floor kick and snare pattern throughout the song. The final chorus incorporated a hi hat, and some snare hits were doubled with a clap. I also utilised some one-shot Simmon's tom samples (gifted to me by my producer Jan) to form some tom fills. One notable moment in 'Drift' is at 1'20 when the tom fills are extended to form an almost lead role. Toms would not usually be treated as a lead in this sense, but I liked the extended tom fill section as a contrasting moment in the song. A tutorial where the Linndrum is used is 'How to Synthwave with freeware' by AdK Studios (2020).

I applied gated reverb to my snare, toms and clap, using an aux track with a large room reverb and a noisegate on it to achieve this effect. I also sidechained (known also as bass-ducking) my 16ths bass (SP1a) to my kick, altering the threshold and ratio of my compressor to adjust how much the bass ducks out when the kick transients hit. To create risers which signalled new sections, I reversed a crash cymbal of a one-shot drumulator sample. I also reversed a singular pad chord, adding reverb to this and automating the panning to swell the sound from right to left. This reflected my virtual ethnography, as synthwave tutorials often advise transitioning sections with risers or reversed parts. Tutorial videos for gated reverb include Ste Ingham's 'Synthwave Sessions 02: Snares' (Ste Ingham, 2017b), Opheus Audio Academy's 'How To Create An 80s Synthwave Snare' (Opheus

Audio Academy, 2021) and '4 Synthwave Techniques You Should Know' (MobileMusicPro, 2021). One tutorial video for sidechaining is Ste Ingham's 'Synthwave Sessions 24: Mixing Kick and Bass' (Ste Ingham, 2018a) [11'39]. Tutorial videos for reversing samples include Ste Ingham's 'Synthwave Sessions 25: Reversing Samples' (Ste Ingham, 2018b).

Due to 'Drift' (2019) being an experiment in synthwave creative processes (and created only as a proof of concept and demo) the song was finalised when I reached a point where I would normally prepare the stems to be sent to my producer Jan. Overall, the song contained all of the core components in terms of style parameters (here SP1a, SP1b, SP2a, SP3a, SP4a and SP5). Based on my findings from the virtual ethnography and analysis of synthwave songs, I believe that 'Drift' (2019) would be recognised as synthwave-styled by the community. Throughout the creative process, I did experience some harmonic and performative restraints (such as those to do with key, chords, and melodic contouring). If I were writing freely, and without the aim to create a proof of concept synthwave-styled songs, I would remove these restraints and employ more of my own *modus operandi* composition signatures. Future experiments may consider to what extent this limit can be pushed, and whether if removing some of the 1980s synth timbres lessens a song's recognition as synthwave.

Chapter 5 Conclusion

Through virtual ethnography and autoethnography (audio experiments and composition), this chapter has exemplified the synthwave creative process. I have outlined specific style parameters which are important to synthwave, in addition to how they are created, valued and understood by the community. I have drawn links to 1980s music technology to explain how and why the synthwave community privilege this decade in their music. I have demonstrated how community discourse and tutorial resources contribute to how synthwave creators learn and hone and develop their own synthwave creative processes. Later chapters will consider particular subgenres of synthwave, such as the popwave subgenre (Chapter 7) and the darksynth subgenre (Chapter 6). This will include an overview of synthwave style parameters in a live setting (Chapter 8), through live concert ethnographies.

Chapter 6: A Gateway from Metal to Synthwave under the influence of John Carpenter: the Darksynth subgenre

In this chapter, I examine one synthwave subgenre, darksynth. With genre theory (Hesmondhalgh, 2005; Holt, 2007), I observe this subgenres' musical and cultural tenets, notably its links to metal and horror film music soundtracks. By extension, I investigate the synthwave community's relationship to 1980s popular culture, which they use to construct a community identity and formulate elements of synthwave subcultural capital. One element of this capital is the work of American film maker and music composer John Carpenter, who is highly regarded by the online community. Whilst Carpenter's significance and legacy within the film industry is well recognised overall (Conrich & Woods, 2005, p.3) (and not specifically by the synthwave community), Carpenter has actively engaged with synthwave artists and audiences, notably through his appearance on synthwave documentary *Rise of the Synths* (2019) (Castell, 2019), and his performance of a monologue on song 'Tech Noir' (2015) for album *GUNSHIP* (2015). Actions such as these, paired with synths being the 'distinctive sound of many early Carpenter movies' (Conrich & Woods, 2005, p.60), have solidified knowledge of the film music composer as subcultural capital of synthwave.

Despite a universal recognition of Carpenter by the online community, it is the darksynth subgenre which draws the strongest ties to him musically. When paired with influences of metal, and particularly metal styles of the 1980s, results in the musical characterisation of the darksynth sound. These combined influences have led many to consider darksynth as a 'gateway' genre to synthwave (i.e. to other synthwave subgenres that are not darksynth), and particularly for listeners of metal.

To summarise, in an analysis of the darksynth subgenre, this chapter investigates its artists, music, musical and cultural influences, as well as providing an account of synthwave subcultural capital in line with the community's privileging of 1980s popular culture and aesthetics. The chapter is structured as follows: I provide a community definition of darksynth, which consists of virtual ethnography and survey data (6.1). Following this, I analyse the interview responses of 24 darksynth artists (6.2). To investigate the darksynth subgenre stylistically, I analyse one darksynth song, 'Diabolic' (2016) by artist Dance with the Dead (6.3). Based on this analysis, autoethnographic work reconstructs a darksynth-styled composition, to experiment with and test the limits of style parameters of darksynth (6.4). Virtual ethnography is included through sections where relevant, particularly 6.2. I conclude this chapter by collating my findings about darksynth's subgenre formation within the online synthwave community.

6.1 Defining Darksynth

For a community definition of darksynth, I refer to Table 4.1 from Chapter 4 ‘Defining the Synthwave Community of the 21st Century’. This table presents alternative names used by the community for darksynth, such as ‘cybersynth’ (Cram, 2018a), ‘horror synth’ and ‘cyberpunk’ (Freewave, 2018). It also shows musical descriptions of darksynth with suggested representative artists.

Table 4.1. Exemplar synthwave community subgenres		
Darksynth (Solaris, 2018), Cybersynth (Cram, 2018a), Horror Synth, Cyberpunk (Freewave, 2018).	‘[...] prominent electric guitar, and energetic rhythms’ (Cram, 2018a) ‘faster tempos [...] Many in the Darksynth scene actually have metal backgrounds.’ (Freewave, 2018).	Perturbator, Carpenter Brut, Mega Drive (Freewave, 2018).

Table 4.1 (restated) Exemplar synthwave subgenres.

Darksynth’s style parameters can be extracted from reviewing community definitions such as those quoted in Table 4.1. Further descriptions by synthwave journalist Cram characterised darksynth as: ‘a mixture of [20]10s-era EDM styles with industrial effects, harsh noise, synthwave melodies, [...] metal guitars, [...] wildly distorted synth bass [and] thunderous percussion’ (Cram, 2018c). Freewave suggested that darksynth is a: ‘style of music [which incorporates] bass heavy electro and industrial music, [with] faster tempos [than other synthwave subgenres]’ (Freewave, 2018). Solaris noted how the subgenre is: ‘inspired by the horror and science fiction films of the [19]70s and [19]80s’ (Solaris, 2018). These definitions recognise key influences of darksynth as metal and horror film soundtracks. My virtual ethnography and survey reflected these findings also. Specifically, where respondents had named metal as one of their preferred music types, they also named some of their favourite synthwave artists as from the darksynth subgenre (GosT, Perturbator, DwtD, Carpenter Brut, Deadlife, Mega Drive, Dynatron, Magic Sword, Dan Terminus, and Tommy ‘86). This clarifies some of the musical links between metal and darksynth, demonstrated also by respondents referring directly to darksynth artists as ‘gateway’ artists from metal to synthwave. Dance with the Dead is an example ‘gateway’ artist, who one respondent named as their ‘favourite darksynth group [...] whose music got me interested in [synthwave]’ (Survey Anon, 2019). A similar comment was made about darksynth artist Dynatron, who ‘got me into the genre [synthwave]’ (Survey Anon, 2019). One survey respondent noted broadly how darksynth ‘draws in a lot of metalheads who wouldn’t usually listen to electronica’ (Survey Anon, 2019).

As well as drawing links from metal to darksynth, several respondents also drew links from horror film soundtracks to darksynth: '[19]80s horror for darksynth', '[19]80s synth sound and horror [e.g. the synthwave artist] Carpenter Brut' (Survey Anons, 2019). Respondents also named John Carpenter specifically, describing his influence on synthwave more broadly by referring to the use of synths in his soundtracks: 'The whole genre came out of appreciation for [19]80s synth music, especially stuff like John Carpenter's soundtracks' (Survey Anon, 2019). Key horror film soundtracks by Carpenter include the *Halloween* franchise (e.g. *Halloween* [1978], *Halloween II* [1981], *Halloween III: Season on the Witch* [1982]), as well as *The Thing* (1982) and *Prince of Darkness* (1987). Whilst John Carpenter has written across genres of film (e.g. sci-fi films such as *They Live* [1988]), 'horror is the genre with which [he] has been most associated' (Conrich & Woods, 2005, p.1).

John Carpenter is well recognised within the film industry (Conrich & Woods, 2005, p.3), but it is notable how he has engaged with the synthwave community. For example, he narrated Ivan Castell's synthwave documentary *Rise of the Synths* (2019), beginning this narration with: 'If you are hearing this, it's a message from the past, and from the future. We all have our creation myths, as societies [and] people with shared interests. As individuals, we all seek creative ways of expressing ourselves, in the art we try to make or the stories we tell' (*Rise of the Synths*, 2019, timecode 2'43). Carpenter recognised his contribution to *Rise of the Synths* (2019) on his Twitter account, and other synthwave artists recognised and praised the documentary.

John Carpenter ✓ @TheHorrorMaster · Oct 17, 2020
I had the privilege of narrating a documentary about the origins of synthwave music. It's called "The **Rise Of The Synths**" - The limited edition is available now for pre-order. Here's another SNEAK PEEK - I promise you'll love it!

Fig 6.1 [Twitter Screenshot] John Carpenter tweeting about his role in *Rise of the Synths* (2019) (17.10.2022).

This is a big deal. The London premiere of The **Rise of the Synths** documentary (narrated by **John Carpenter**) will have a very rare appearance by @GUNSHIPMUSIC, along with @ninasounduk, score composer @ogresounds and @80sstallone.

Fig 6.2 [Twitter Screenshot] A Tweet by a synthwave artist about *Rise of the Synths* (2019) (Anon, Twitter, 2019).

NINA @iloveninamusic · Jul 14, 2022
 "The **Rise Of The Synths**" is now on Prime, featuring yours truly and narrated by the legend himself @TheHorrorMaster ⚡

Fig 6.3 [Twitter Screenshot] A Tweet by synthwave artist NINA about *Rise of the Synths* (2019) (NINA, Twitter, 2019).

John Carpenter also contributed a spoken monologue to one of GUNSHIP's songs, 'Tech Noir' (2015b),⁴⁶ which he can be seen being interviewed about on YouTube (GUNSHIPMUSIC, 2015a).⁴⁷ GUNSHIP posted about the track on Twitter (Fig 6.4), and the online community too showed their admiration (and pride) for this collaboration with John Carpenter on a synthwave track (Fig 6.5-6.7).

Dan Haigh @Dan_Haigh · Aug 7, 2019
 So @GUNSHIPMUSIC's 'Tech Noir' just hit 5 MILLION VIEWS. I love that song deeply, but having @TheHorrorMaster read the intro is something I'll treasure for the rest of my life. Thanks for all the inspiration JC we wouldn't be doing this without your work. youtu.be/-nC5TBv3sfUU

Fig 6.4 [Twitter Screenshot] GUNSHIP member Dan Haigh tweeting about 'Tech Noir' (2015) (Twitter, 08.2019).

Here's one for you - check out the song **Tech Noir** by @GUNSHIPMUSIC #synthwave that features narration by **John Carpenter**!

Fig 6.5 [Twitter Screenshot] A Tweet about 'Tech Noir' (2015) (Anon, Twitter, 05.2019).

Tech Noir by Gunship. Despite being named after the bar in The Terminator, it's got a narration by none other than our dear friend **John Carpenter**. Of course, his musical scores helped inspire Synthwave and this is a Synthwave song
 SOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

Fig 6.6 [Twitter Screenshot] A Tweet about 'Tech Noir' (2015) (Anon, Twitter, 01.2018).

I mean the only thing that would make **Tech Noir** better would be if @TheHorrorMaster narrated it himself.. oh wait

Fig 6.7 [Twitter Screenshot] A Tweet about 'Tech Noir' (2015) (Anon, Twitter, 08.2019).

⁴⁶ 'Tech Noir' (2015) is available at: <<https://www.youtube.com/watch?v=-nC5TBv3sfUU>> (GUNSHIP, 2015b) [Accessed January 2023].

⁴⁷ Interview available at: <<https://www.youtube.com/watch?app=desktop&v=mq5mkVIWkCU>> (GUNSHIP, 2015a) [Accessed January 2023].

Commentary such as this demonstrates how the community value John Carpenter's work, view his input to synthwave, and resultantly consider knowledge of him and his work as key subcultural capital of synthwave. The recognition by John Carpenter of synthwave only reinforces this capital (e.g. Fig 6.1).

It is useful here, in the understanding of darksynth, to review descriptions of both horror film soundtracks and metal; to unpack how darksynth artists combine these influences musically and culturally into their sound. Film scholars consider 'classic slasher franchises' such as *Psycho* (1960) to have influenced key horror film releases from the late 1970s and 1980s, such as *Halloween* (1978), *Friday the 13th* (1980), and *A Nightmare on Elm Street* (1985) (Francis, 2013, p.8). Francis outlined the specific sound coding of horror film soundtracks, which teach audience members 'narrative formulas, and film techniques that are specific to the field' (Francis, 2013, p.13). For instance, Francis described John Carpenter's work on *Halloween* (1978), in which: 'the piano, synthesizer, and other instrumental sounds give weight to the onscreen action, but Carpenter also uses key sound effects, such as heavy breathing, screaming, whimpering, gasping, potted plants breaking, and car tires screeching' (Francis, 2013, p.40). Carpenter's work has also been generally noted for 'synthesiser score[s]' (Odell & Le Blanc, 2001), with: 'mood tones [that] set up suspense in a scene. They often take the form of ominous drones, occasionally accompanied by continuous staccato rhythms' (Odell & Le Blanc, 2001, p.16). Use of leitmotifs are also key to horror, defined as: '[different to] motifs, in that they more specifically represent repeated musical compositions (or sounds) related to a particular character, and only that character. [e.g. *Halloween's*] The Shape has the continual exclamatory synth-stingers, and ominous breathing' (Muir, 2005). Whilst not strictly musically staccato, one of the most famous leitmotifs from a horror film soundtrack is the high-pitched string stabs from the shower scene in *Psycho* (1960). Equally, horror soundtracks must accommodate the inevitable 'anxiety-inducing chase scene' (Muir, 2005), which often utilise musical components of rhythm and meter (e.g. an increasing or faster tempo or use of faster rhythms) to convey a sense of urgency and terror. It is horror film coding such as these examples which darksynth artists incorporate to their songs.

In tandem with horror coding, darksynth artists incorporate metal guitar parts, which typically utilise guitar riffs (Bayer, 2009, p.79) and 'virtuoso solo guitar playing' (Herbst, 2017b, p.232). 'Virtuosity' in this context is understood as 'shredding', which means fast playing combined with a range of playing techniques [...] tapping, string skipping, bended tones, artificial harmonics' (Herbst, 2017b p.232). Of metal harmony, sociologist Kahn-Harris described how speed metal is often Phrygian or Locrian, modes which are used 'sparingly in Western music' (Kahn-Harris, 2007, p.31). Musicologist Lilja also demonstrated the prevalence of the Aeolian mode in heavy metal music (Lilja, 2009). These accounts of

musical arrangement for horror film soundtrack and metal (respectively) are revisited later in my case study analysis of one darksynth song, 'Diabolic' (2016) (Section 6.3), and are also relevant when reading interview data by darksynth artists (presented shortly in Section 6.2).

When reviewing synthwave subcultural capital of John Carpenter, it is noteworthy how the filmmaker's work has not only manifested musically, but also of artist names, as one of my (non-darksynth artist) interviewees explained: 'Carpenter Brut's name is almost certainly inspired by John Carpenter's surname' (Gamper, 2019). This has been confirmed by darksynth artist Carpenter Brut, in interview with Decibel Magazine: '[...] the name comes from Charpentier Brut champagne. But it also made sense with John Carpenter's universe [referring to John Carpenter's work as a film music composer]' (Dick, 2018). Further reverence of John Carpenter's work is evidenced by survey comments which described him as 'the grandfather of synthwave', with his 'undersigning of the entire movement [refers to the synthwave community]' (Survey Anon, 2019). This comment seems to suggest that when viewed in lineage of John Carpenter, the creative works by the online synthwave community are somewhat legitimised (i.e. the celebration of synths in a soundtrack setting). One survey responder also went as far as expressing their view that John Carpenter has 'joined the community' (Survey Anon, 2019), though did not confirm what they meant by this. It is possible that they were making musical links between John Carpenter and synthwave (namely of synths and soundtrack music, two things John Carpenter and synthwave have in common), but it is also possible that they were referring to knowledge of Carpenter as synthwave subcultural capital. This is most likely, given that their comment was in response to, 'what do you associate with (or as) synthwave?'

Aside from examining my survey data for mentions of John Carpenter and synthwave subcultural capital, I also noted patterns of darksynth artists (i.e. those frequently named). Only one female darksynth artist was named (Powder Slut), with no other female or non-binary artists (e.g. Sierra, who is 'non-gendered with 'she pronoun' [Sierra, 2021]), exandroid aka Sasha Rosser, Zith, Kriistal Ann, Rose Thaler, Surgeryhead (who is non-binary), Varien, Lazermortis, Circe Electro, Maniac Lover, Nuovo Testamento, Isabella Goloversic, Greta Link, Glitbiter) named at all. When consulting sources within the online community, I noticed that synthwave journalist Cram's dedicated article to darksynth⁴⁸ also did not recognise any female or non-binary artists, representing only male artists.⁴⁹ Given darksynth's ties to metal, these findings were not entirely unexpected, but still informative of a lack of representation

⁴⁸ The article is no longer available directly from its author, but has been reuploaded by someone else here: <<https://electrozombies.com/magazine/article/why-darksynth-deserves-its-own-genre/>> [Accessed January 2023].

⁴⁹ This was verified through their social medias where 'he' pronouns were used in biographies or by reviewers, as well as checking Bandcamp writing credits of each artist. I also read artist bios and information for evidence of identity components.

for female and non-binary darksynth artists within the community. At its core, metal is 'a discourse shaped by patriarchy' (Walser, 1993), and cultural studies scholar Bayer described how 'British heavy metal is an expression of masculinity' (Bayer, 2009, p.17). Many of metal's key traits have been characterised in reference to masculinity, such as the 'centrality of the heavily distorted guitars', which are a '[phallic] symbol of masculine power' (Bayer, 2009, p.24). Guitar parts in metal are part of an arrangement which communicates masculinity through 'sound, volume [and] low pitch' (Bayer, 2009, p.24). Whilst some systemic issues are clearly evident here, and with metal's majority male artist demographic well documented (Weinstein, 2000, p.67; Walser, 1993, p.109; Bayer, 2009, p.17), I was motivated to investigate further what might be restricting the visibility of female and non-binary darksynth artists.

6.2 Interviewing Darksynth Artists

In addition to surveys and virtual ethnography data about darksynth, interviews were conducted with darksynth artists. Questions targeted artist identification with darksynth, musical influences, artist background, artist song arrangements, and experiences within the online synthwave community. A total of 24 darksynth artists were interviewed, and both male and female (plus non-binary) darksynth artists were interviewed, with the former being: We Are Magonia, Dance with the Dead (DwtD), Anon 1, CYBERCORPSE, Occams Laser, Deadlife, Ghostdrive, Irving Force, MD, Dynatron, 3FORCE, VHS Glitch, Fixions and Volkor X and the latter being: Sierra (non-gendered with she pronouns), Zith, exandroid aka Sasha Rosser, Kriстал Ann, Rose Thaler, Surgeryhead (non-binary), Lazermortis, Maniac Lover, Circe Electro and Powder Slut.⁵⁰ Interviews with darksynth artists took place in two stages, firstly the male artists (February and March 2021) and later the female (and non-binary) artists (March-August 2021). This was not my original intention, but rather a response to something I noticed when I reflected on my initial interview sample for this chapter – no female or non-binary artists had been interviewed. This raised further questions to me about their visibility, and also prompted me to consider the potential differences between experiences of male and female (and non-binary) darksynth artists within the community.

Regarding interview questions, my question about identifying with darksynth served two purposes: one, to examine if artists self-identified with darksynth or if the community had applied that label, and two, to examine if female and non-binary artists felt able to self-

⁵⁰ Some artists were approached for interview based on my virtual ethnography of the online synthwave community, where artists identified themselves as darksynth on social medias or through hashtags. Others were sourced through a snowball sampling technique, or further virtual ethnography on one synthwave subreddit.

identify as darksynth given the subgenres strong reputation for male artists. Questions about musical influence interrogated if artist and styles of the 1980s were of significant influence on darksynth, both in reference to synthwave's privileging of this decade, but also to further my understanding of how horror and metal influences have trickled down to darksynth. Other questions targeted the realisation of darksynth, from instrument and arrangement choice to DAW usage and beyond. These questions were motivated by wanting to understand darksynth creative processes.

Most male interviewees named 1980s metal styles as influential to darksynth, referencing particularly thrash metal, glam metal, and with a few references to death metal and black metal. Comments included: 'I think darksynth bears a lot of similarities with [...] [19]80's death and thrash metal' (Cybercorpse, 2021). Other comments described thrash metal with representative artists, naming Metallica (Anon 1, 2021; DwtD, 2021), Megadeath and Pantera (DwtD, 2021). Occams Laser (2021) felt that glam metal's 'over the top guitar solos [and] some sort of synth playing a solo part' had influenced darksynth. MD made similar comments, 'I notice that many darksynth artists listen to black metal [and] death metal. I myself listen much more to [19]80s glam metal and traditional heavy metal' (MD, 2021). Slo from Fixions commented, 'I think every darksynth artist [has] got an extreme metal background. We are mainly 30+ [age] boys, so we grew up listening to metal in the [19]80s and [19]90s' (Slo from Fixions, 2021). These comments recognise in particular 1980s metal styles as influential to darksynth (thrash, glam, death and black metal) demonstrating one way in which the subgenre harks back to and communicates components of this decade, a decade which is key subcultural capital of synthwave. The comment also recognises a dominant narrative of darksynth with reference to male artists.

Some interviewees recognised a broader account of metal's influence to darksynth, which did not necessarily fixate on the 1980s: 'I think a majority of darksynth artists come from or are very influenced by the metal scene. There's definitely a relationship between the heavy guitars and the distorted synths, but I think the artists are more influenced by the imagery, the folklore (satanism, inverted crosses and pentagrams, skulls...) than by any band or metal genre in particular' (Volkor X, 2021). VHS Glitch made similar comments, 'I think it is influenced by metal music in general, [but] not a specific decade or subgenre' (VHS Glitch, 2021). Dynatron's comments were the most sparing of metal's influence on darksynth: 'Darksynth share a lot of the same topics as metal, most notably horror, sci-fi and occult themes [but] I believe you could still make darksynth without necessarily being rooted in or inspired by metal' (Jeppe Hasseriis, 2021).

Artists also spoke of metal in reference to musical components (which formed part of their creative process, or that they had noted in other darksynth artist's songs): 'I'd say there's influence from all sorts of metal in Darksynth, a lot of groove-based stuff when it

comes to riffs' (Irving Force, 2021). VHS Glitch described similarly: 'some artists add a lot of distorted guitar riffs to make it sound literally like metal with a few synths on top of them' (VHS Glitch, 2021). Other comments simply described darksynth's 'guitar riffs' (3FORCE).

Overall, comments by male interviewees made clear links between metal and darksynth. Anon 1's comment summarises: 'Several darksynth artists have their roots in metal and were part of metal bands before transitioning to [...] projects that many would consider darksynth (Perturbator and Gregorio Franco come to mind)' (Anon 1, 2021). As with comments by Volkor X and VHS Glitch (above), Anon 1's comment would suggest that darksynth is not only a gateway to synthwave for audiences (as my survey data recognised in Section 6.1) but also for artists.

All male interviewees identified to some degree as darksynth artists, with the strongest agreements from Cybercorpse: 'Yes, I think that description fits best. That's what my music [has] most often [been] categorized as by my listeners' (Cybercorpse, 2021), Occam's Laser: 'Yes I would definitely define myself as a darksynth artist' (Occam's Laser, 2021), MD 'Yes I do! [...] to describe the mood [...] of my music' (MD, 2021) and Irving Force: 'I would definitely consider my earlier stuff to be partially darksynth, yes!' (Irving Force, 2021). Some responses were less committal, instead describing darksynth as one 'flavour' of their music (Volkor X, 2021), as their having a style '[close] to darksynth' (Jeppe Hasseriis, 2021) or their being 'darksynth influenced' (Ghostdrive, 2021). I found responses about community "labelling" particularly interesting, especially VHS Glitch's response: 'Listeners like to tag me as a darksynth artist, so I guess that's what I'm [I am]' (VHS Glitch, 2021). Other responses, such as Cybercorpse's response ('That's what my music [has] most often [been] categorized as by my listeners' [2021]), and that of Deadlife: 'I'm not confined to that [darksynth], but I definitely have some releases that fit into [darksynth]' (Deadlife, 2021) hint at the idea that some darksynth artists are more fan-termed, as opposed to artists necessarily identifying with the subgenre themselves. Some interview comments hinted at an acceptance of this kind of fan-termining or subgenre categorising (e.g. VHS Glitch, 2021; Cybercorpse, 2021), which made me question what motivations artists had to either accept or repel the definition of and categorisation as darksynth.

Horror film soundtracks were also cited as influential to male darksynth artists, with some naming John Carpenter. VHS Glitch described: 'anything that involves [...] horror [...] definitely influences my music' (VHS Glitch, 2021). Occams Laser agreed, 'I definitely take inspiration at least tonally from some of the [19]70s and [19]80s horror [and their] synth sounds' (Occams Laser, 2021). MD explained how his work is 'highly inspired by horror movies soundtracks' (MD, 2021), and Irving Force reported that 'John Carpenters soundtracks were a big inspiration [to him], I'm sure a lot of other artists will cite him as well.

He is a legend' (Irving Force, 2021). Slo's comments synchronised: 'I really dig Carpenter's movies original soundtracks' (Slo from Fixions, 2021).

In addition to comments about the musical influence of horror film soundtracks, three male artists outlined a more direct use of horror films as part of their creative process. Anon 1 reported having produced a track 'as a homage to the *Friday The 13th* (1980) films [...] called Jason's Woods [...] I used voice samples from the theatrical trailer as well' (Anon 1, 2021). Equally, DwtD explained: 'When we were writing [*The Shape* 2016 album], we would also have [horror] movies playing in the background [...] we would write to what we were watching as if we were scoring it' (DwtD, 2021). Finally, MD described the added use of his album work as soundtrack music for his horror style comics (MD, 2021). These responses support horror film soundtracks as a key influence on darksynth, as well as demonstrating how John Carpenter is considered subcultural capital of synthwave.

All of the female and non-binary artists I interviewed (in total ten) considered themselves darksynth artists to some extent, with the strongest identifications from: Surgeryhead, Rose Thaler, Sierra and Kriistal Ann. In response to, 'Do you identify as a darksynth artist?', Surgeryhead replied 'Yes!' (Surgeryhead, 2021), while Rose Thaler too said 'Yes' and explained her music is: 'Darksynth [...] I write Darksynth/Electro Dark' (Rose Thaler, 2021). Sierra, who identified as non-gendered with she pronouns, clarified: 'people who identify with this word are so different. But yes, I identify as a darksynth artist' (Sierra, 2021). Kriistal Ann responded with: 'Yes, some might put me in that category of darksynth, but I think it limits the true dimension of my music which could be characterized as [...] electronic alternative [or] synthwave [...] with experimental approach' (Kriistal Ann, 2021). Other responses were more partial: 'I've made some tracks that have darksynth elements' (exandroid aka Sasha Rosser, 2021), 'I've taken a lot of inspiration from darksynth [but] it's hard to stick to any single subcategory' (Renee, 2021), 'The general style of my music is synthwave [...] with darksynth influence' (Powder Slut, 2021). Lazermortis commented: 'I do have several songs that would be classified [as darksynth]' (Lazermortis, 2021), whilst Circe Electro described that 'darksynth is definitely a realm that I love to write for, but I don't limit myself to one aspect of a much broader soundscape' (Circe Electro, 2021). These comments demonstrate two important points, one, that a level of "bottom up" fan-terming of darksynth artists is applicable (hinted at by Lazermortis, 2021; Sierra, 2021; Kriistal Ann, 2021), and two, that some artists view identifying with darksynth wholly as potentially musically restrictive or unrepresentative of their entire creative and musical style (Circle Electro, 2021; Renee, 2021).

When conducting interviews with darksynth artists, I listened to samples of their music before the interview. I found it interesting that the instrumentation of songs by female and non-binary darksynth artists featured less guitar parts than are typically heard across

darksynth songs by male artists (where the guitar is prominently featured rhythmically and melodically). Instead, female and non-binary artists appeared to be more influenced by horror soundscapes, achieved with synths (e.g. Lazermortis, Powderslut). I also noticed how female and non-binary artists were more willing to use instruments not heard in popular darksynth songs (by artists such as Perturbator, DwtD, Carpenter Brut for example), with many incorporating vocal parts (e.g. 'Essential Mist' [2015] by Kriistal Ann, 'Gone' by Sierra [2019], 'The Road is Found' [2016] by Rose Thaler). Apart from a few examples of female artists featuring as toplineers on darksynth songs, darksynth is traditionally instrumental. I also noticed some piano and even acoustic guitar parts across some of exandroid's songs (e.g. 'e.g. never' [2020] and 'Bait and Switch' [2020]) which is unusual for darksynth. These examples demonstrated to me how some female and non-binary darksynth artists are diversifying the darksynth subgenre with alternative arrangement decisions.

I correlated these findings in particular with musical influences cited by female and non-binary darksynth artists. I found that fewer female and non-binary respondents named styles of metal or horror film soundtracks as musically influential to them. This is despite the fact that horror soundscapes drones are prevalent in their musical overall. Four interviewees: Surgeryhead, Maniac Lover, exandroid aka Sasha Rosser and Rose Thaler, named metal as influential to their style. Surgeryhead named metal but did not clarify it, exandroid aka Sasha Rosser named industrial metal, Rose Thaler specified 'symphonic metal (like Within Temptation)' (Rose Thaler, 2021) and Maniac Lover depicted 1990s black metal artists 'Burzum, Satyricon, Immortal' (Maniac Lover, 2021). Other respondents named mainly EDM-related styles as influential: 'ebm' (Sierra, 2021), 'electronic alternative' (Kriistal Ann, 2021) and 'EDM', 'electronic' (Renee, 2021). Other respondents were more specific and named influential artists, such as 'synthpop from the [19]80's like Gary Numan' (Lazermortis, 2021). Circe Electro gave a short list of artists that she considered influential (consisting mostly of 1980s and 1990s artists) including: Gary Numan, John Carpenter, Vangelis, Kate Bush, Debbie Harry, Siouxsie Sioux (Circle Electro, 2021). Circe Electro was the only interviewee to mention John Carpenter, with no other respondents mentioning horror film soundtracks specifically. However, related responses included 'game soundtracks' (Renee, 2021), '[19]70s-80s soundtrack music' (Powder Slut, 2021) and 'soundtracks' more broadly (Surgeryhead, 2021). These responses reflect well-recognised influences of synthwave more broadly within the community, of film soundtracks, game music and 1980s synthpop in particular. Overall, female and non-binary darksynth artists drew considerably fewer links to metal and horror film soundtracks when compared with male darksynth artists interviewed. In turn, a much broader range of musical influence was named, which in my view is one of the reasons why darksynth musical arrangements by female and non-binary artists are more diverse than those of male artists.

When I asked female and non-binary artists what their experience of the synthwave community was, some referred to successes: 'I've had some tracks published on big-ish synthwave channels like The Prime Thanatos, Astral Throb, and The 80s Guy (exandroid aka Sasha Rosser, 2021), while some made observations about gender in the community: 'it [music] is a heavily male-dominated industry and most women who are in the synthwave scene [...] are usually vocalists' (Lazermortis, 2021). Zith agreed, specifying that darksynth in particular 'is definitely a male dominated subgenre' within the community (Renee, 2021). Some described positive experiences regarding working within the darksynth subgenre, especially those who had worked as feature artists for other male darksynth artists. For example, Kriistal Ann explained her work on 'Arise' (2016) with GosT: 'GosT himself approached me for this collaboration after [...] admiring my vocals' (Kriistal Ann, 2021). Other examples of darksynth songs with female topline artists include: Perturbator's 'Desire' (2012) (featuring Greta Link), Perturbator's 'Naked Tongues' (2012) and 'Hard Wired' (2014) (both featuring Isabella Goloversic), and Gregorio Franco's 'Awakening' (2019) (featuring Glitbiter).⁵¹ In spite of these instances, darksynth songs with vocals are not the norm, and are traditionally instrumental. It is notable however, that female vocals are opted for, whether this is because male vocals were not wanted or because male artists do not have this skillset themselves (explored further in Chapter 7).

Surgeryhead (who identifies as non-binary with she/they pronouns) described the support they had received from 'artists like Dan Terminus and GosT and Perturbator' (Surgeryhead, 2021), who had complimented their (Surgeryhead's) work. This level of support echoed some of the positive reactions I received when posting to an online darksynth forum within the synthwave community, seeking further interviewees for this chapter. When I enquired about contacting female and non-binary artists, community members responded enthusiastically with suggestions and openly communicated their support for female and non-binary representation.

⁵¹ Perturbator's 'Hard Wired feat. Isabella Goloversic' (2014) is available from: <https://www.youtube.com/watch?v=9hoGMZ1JSfQ> (BloodMusic, 2014). Perturbator's 'Naked Tongues' (2012) is available from: <https://www.youtube.com/watch?v=zs1r6DxdfXl> (Perturbator, 2020b). Perturbator's 'Desire' (2012) is available from: <https://www.youtube.com/watch?v=4drHKqrLgiw> (The 80s Guy, 2018). Gregorio Franco's 'Awakening' (2019) is available from: <https://www.youtube.com/watch?v=FQnVG3PJdec> (RetroSynth Records, 2019). Perturbator's featured artists are listed here: <https://perturbator.bandcamp.com/album/i-am-the-night>. GosT's 'Arise feat. Kriistal Ann' (2016) is available from: https://www.youtube.com/watch?v=FFoPYw55C_c (BloodMusic, 2016).

Female-identifying Darksynth Artists

Hello! I am conducting some research of female-identifying (inclusive of non-male and non-bina ♀) darksynth artists for a journal article I am writing. If you (or anyone you know) would like to add your voice and story of being an artist within the darksynth style, please comment here or DM me. I would love to hear your thoughts and experiences to enrich my research. I am very keen to represent the voices of non-males within this style of music - and raise the profiles of these artists. Equally, I promise absolute anonymity if this is preferred!

For context, I am a PhD researcher with a very big interest in synthwave. Some of you may recognise my username from a survey I conducted within



Fig 6.8 [Reddit Screenshot] Author's post to a forum in the synthwave community in August 2021.

I myself am not female but I know an artist called Lazermortis who makes dark synthwave , which although genre-adjacent still kinda fits the theme in my book.

...   Reply  4 

Fig 6.9 [Reddit Screenshot] A response to author's post (6.8).

i think Surgeryhead is nb. you could dm them on twitter

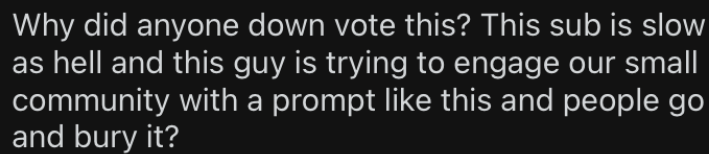
...   Reply  3 

 blaisesummer OP · 280d

Thank you!

Fig 6.10 [Reddit Screenshot] A response to author's post (6.8).

This support was particularly apparent when one member made an offhand 'only boys here, no women' comment in reference to darksynth (which was removed by moderators before I could screenshot it), alongside my post having been downvoted (which on Reddit usually signals a disagreement with a comment or post). This behaviour was promptly challenged by several members of the community, though interestingly the commenter who began this defence assumed I was a male.



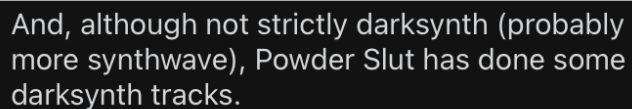
Why did anyone down vote this? This sub is slow as hell and this guy is trying to engage our small community with a prompt like this and people go and bury it?

Why? Because you hate women? Trans women? To me it seems like you simply hate Dark Synth, so why don't you just fucking leave.

...   Reply  25 

Fig 6.11 [Reddit Screenshot] A response to author's post (6.8).

The assumption that I am male is likely related in some ways to darksynth's majority artist demographic as male. The mistaking of my gender also shows that this Reddit user did not recognise me as a researcher from my Reddit username blaisesummer (which I have made clear in my communications to the community). Nonetheless, it did reinforce my thoughts that the darksynth subgenre in general carries a very male-dominated discourse. When I commented back that I am in fact female, this was met with several upvotes, and people nonetheless continued to discuss names of artists on the thread. Of all the comments, one struck me as particularly interesting in that the poster did not consider feature artists as 'actual' darksynth artists. This demonstrates a lesser value being placed on featured singers over instrumentalists or song writers.



And, although not strictly darksynth (probably more synthwave), Powder Slut has done some darksynth tracks.

I don't think I personally would count the feature female vocalists as actual darksynth artists. But if you're going to add them I would put glitbiter up there as well. She's done some features for Gregorio Franco and FacexHugger, and her latest stuff actually sounds like something off of Perturbator's "I Am the Night", so going off that she seems like a good fit even without the features. Also seems to have a good connection to the darksynth scene in general.


...   Reply  2 

Fig 6.12 [Reddit Screenshot] A response to author's post (6.8).

Despite a mostly positive experience with this subreddit through my post in August 2021 (Fig 6.8), I did experience some negative reactions on the same subreddit a month later, when I shared a female and non-binary darksynth playlist that I had made.

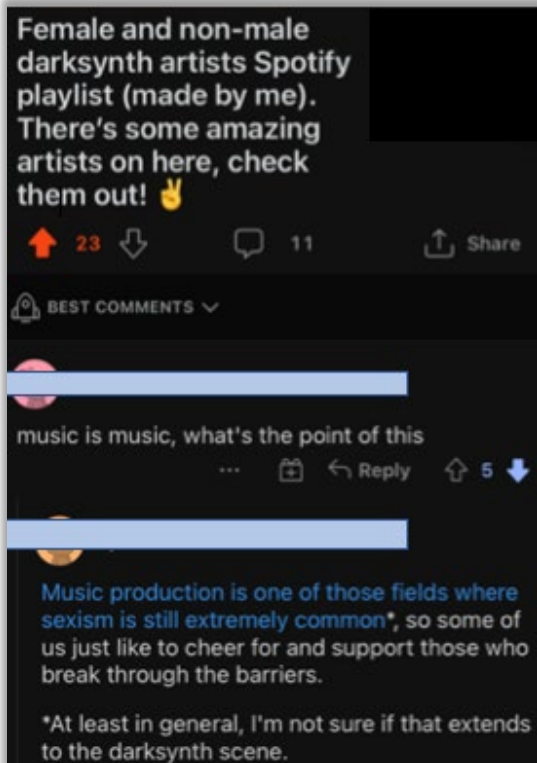


Fig 6.13 [Reddit Screenshot] Author's post to a forum in the synthwave community in August 2021.

One comment, 'music is music, what's the point of this' seemed to question the relevance of gender to music. It was promptly 'downvoted', signalling a disagreement with this statement by other community members. Furthermore, the comment was challenged by someone who highlighted the importance of female representation in the field of music production. They substantiated this comment with a tentative comment that suggested they were unsure if the darksynth 'scene' was inclusive. Further comments to this thread were positive, with members naming artists I could add to the playlist and thanking me for creating it. On reflection, my use of 'non-male' was perhaps a little too affronting, and non-binary or enby would have been more appropriate. This was noted and terminology was altered from this point on when referring to different genders.

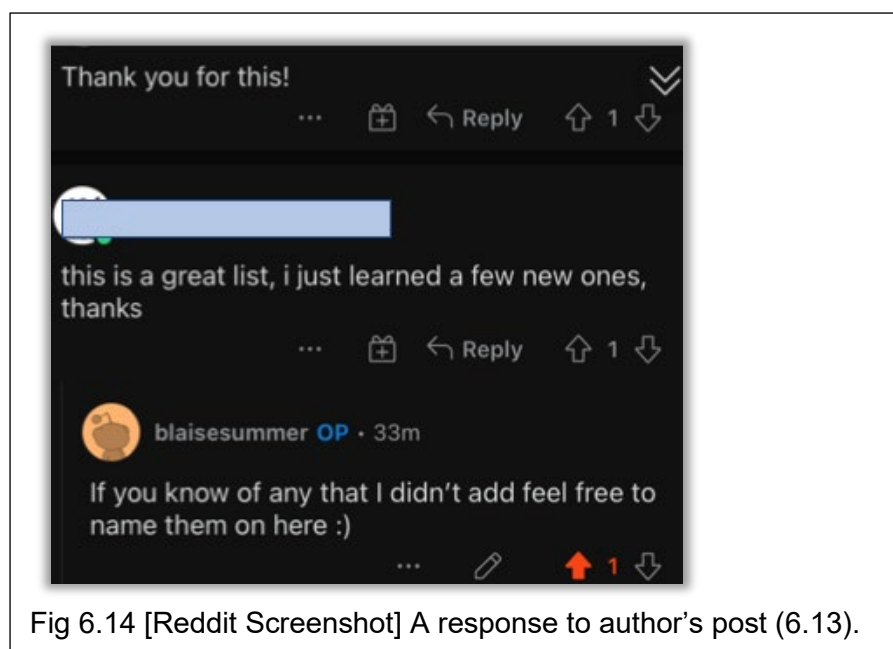


Fig 6.14 [Reddit Screenshot] A response to author's post (6.13).

This section has provided working definitions of darksynth, metal and horror film soundtracks. It has illustrated data from the virtual ethnography, including survey data, and interviews with darksynth artists, to demonstrate the discourse around this particular synthwave subgenre. Through interview comments, this section has started to define the musical and style parameters of darksynth, which I now analyse and deconstruct through one case study darksynth song.

6.3 'Diabolic' (2016) by Dance with the Dead (DwtD) – Song Analysis

'Diabolic' (2016)⁵² is track 8 of Dance with the Dead's (abbreviated as DwtD) album *The Shape* (2016) (see Fig 6.19 below), an album which shares its title with the alternative name for character Michael Myers from horror film *Halloween* (1978) by John Carpenter.⁵³ DwtD naming songs after characters from films by Carpenter demonstrates one way in which artists express their knowledge of the filmmaker, which resultantly demonstrates subcultural capital of synthwave. I selected 'Diabolic' (2016) to represent darksynth because of the duo's recognition by the synthwave community – enabling me to theorise which musical parameters are accepted and privileged as darksynth. In choosing a male artist, I allowed myself to explore the dominant narrative of darksynth as understood by the community. This dominant narrative was evidenced by my survey data (discussed in Section 6.1) as well as other areas of my virtual ethnography (shown in Fig 6.15-6.17 below). The below screenshots evidence DwtD's reputation within the community as popular choices from the

⁵² Available to hear here: <<https://www.youtube.com/watch?v=YanwyGP0Li4>> (Dancewiththedeath, 2016).

⁵³ More information is available from: <<https://screenrant.com/halloween-movie-michael-myers-name-shape-reason/>> (Tyler, 2020).

darksynth subgenre. I also selected DwtD because of their overt associations to horror and strong affiliation with the metal community, enabling me to test theories from my virtual ethnography that darksynth draws musical ties with these two musics. Within the community, DwtD are regularly suggested by community members to those who ask for darksynth recommendations, along with other high-profile artists Perturbator, Carpenter Brut and GosT – these artists are considered cornerstones of the subgenre.

Hey everyone, not sure if this has already been asked but I wanted your opinions: What are your favorite darksynth tracks of all time, or at least the ones you find the most significant?

I'm hoping I could maybe get ideas for new songs/artists to listen to. For reference, Here's my list in no particular order:

Perturbator - Neo Tokyo; Carpenter Brut - Turbo Killer; Daniel Deluxe - Soul Siphon; Dance With the Dead - That House; Dan Terminus - Cherenkov Blue Overdriver; GosT - Manic;

Fig 6.15 [Reddit Screenshot] 'Hey everyone [...]' (Anon, Reddit, 2020).

What have been your top 10 darksynth albums of 2022?

It's been a year with so many good releases! To get the ball rolling, here's my list, in order, with the first one being my favourite:

1. Dav Dralleon - Kthullu
2. Fixions - Requiem for the Serpents World
3. Gregorio Franco - Lamentations
4. King Stephen - Kingdom
5. Acryl Madness - I'm Madness
6. Dance With The Dead - Driven to Madness

Fig 6.16 [Reddit Screenshot] 'What have been [...]' (Anon, Reddit, 2022).

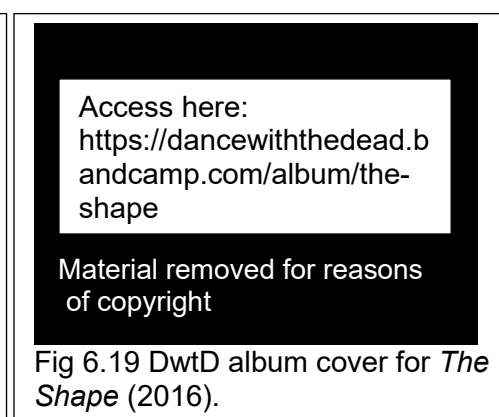
Can anyone recommend me some artists similar to Dance With The Dead and Irving Force?

Looking for that heavy metal/Darksynth vibe.

Fig 6.17 [Reddit Screenshot] 'Can anyone [...]' (Anon, Reddit, 2022).

(Former) Synthwave journalist Cram (2018c) also attested the significance of DwtD, naming them as one of the founders of darksynth since the early 2010s: ‘the identity of darksynth has become increasingly clear [with] prominent artists like Perturbator, GosT, and Dance with the Dead’ (Cram, 2018c).

DwtD have seven studio albums to date (June 2023). The duo consists of guitarists Tony Kim and Justin Pointer. Their first album was released in 2013 (*Out of Body*), and their most recent (at the time of writing), *Driven to Madness*, was released in 2022.



Tony Kim has often spoken of the duo’s key influences: ‘We [he and Justin Pointer] wanted the horror influence from all the movies we loved and also wanted to squeeze in some electronic and metal’ (Cryptic Rock, 2018). In interview with me, Tony Kim explained further, ‘When we were writing that record [2016 album *The Shape*], we could also have [horror] movies playing in the background [...] we would write to what we were watching as if we were scoring it’ (Tony Kim, 2021). This synchronises with other comments the duo made in interview: ‘If a horror director approached us, we’d be open to scoring’ (Vehling, 2019). These comments demonstrate DwtD’s affinity to the horror film soundtrack genre, and given the name of album *The Shape* (2016), their reverence of filmmaker John Carpenter. Before I present my analysis, I provide a graphic representation of Diabolic’s (2016) structure and arrangement (Table 6.1), to establish the names of song components I will later refer to in analysis.

Table 6.1: 'Diabolic' (2016) A Structural Arrangement Overview										
Section	Intro	A Section	B Section	C Section	A Section	B Section	D Section	B Section	A Section	B Section
Timecode	0'00-0'30	0'31-1'02	1'03-1'34	1'35-2'10	2'11-2'41	2'42-2'57	2'58-3'13	3'14-3'29	3'30-4'01	4'02-4'07
Total Bars (4/4)	16	16	16	18	16	8	8	8	16	8
Guitar 1										
Guitar 1b										
Guitar 2										
Guitar 3										
Guitar 4										
Synth 1										
Synth 1b										
Synth 2										
Synth 3										
Synth 4										
Synth 5										
Synth 6										
Synth 7										
Synth 8										
Kick										
Snare										
Toms										
Handclap										
Bass Synth										

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As shown by Table 6.1, 'Diabolic' (2016) is mainly populated by synths but has five guitar parts. The presence of the guitar for rhythmic parts especially, emanates from the metal style. In line with synthwave style parameters, 'Diabolic' (2016) is instrumental.⁵⁴ Due to this instrumental nature, Table 6.1 names sections as letters rather than using verse-chorus terminology. Holistically, the song comprises of three main sections: A, B and C, with one hearing of section D (and one hearing of the intro, which is a pared down version of section A). Drums are heard throughout, with a lack of cymbals noticeable.

My analysis of darksynth is structured into three *key style parameter* sections, where I demonstrate characteristics of darksynth in line with its influence from metal and horror film

⁵⁴ Specifically, the outrun and dreamwave subgenres of synthwave. The popwave subgenre of synthwave is almost exclusively vocal-led.

soundtracks. For clarification of musical parts which I refer to in analysis, Table 6.2 details timecodes and musical description.

Table 6.2: Instrument Parts 'Diabolic' (2016)	
Instrument & Timecode	Style Parameter/Music Production
Guitar 1 0'00	Guitar 1 is the introduction guitar melody and has notes based around the chord of Em. It is the main guitar riff of the song and has a pitch range of b2-b3.
Guitar 1b 0'00	Guitar 1b is a rhythmic <i>ostinato</i> heard as part of guitar 1. It has the same timbre as Guitar 1, with a starting note of e2.
Guitar 2 0'31	Guitar 2 comprises of single strum chords (inversions) heard in the A section and clearly at 2'10. It has a pitch range of e2-e3.
Guitar 3 1'19	Guitar 3 is the guitar solo heard in the B section. It is less distorted and has a noticeable delay effect. It has a pitch range of e4-b4.
Guitar 4 3'20	Guitar 4 comprises of harmonised notes which accompany the guitar solo in the B section at 3'14. It is less distorted and has a noticeable delay effect, with a pitch range of g4-b5.
Synth 1 0'08	Synth 1 is an octave above version of the guitar 1 introduction melody. It is affected with a LPF as it enters, becoming more prominent at 0'08-0'10. It has a pitch range of b3-b4 (SP3).
Synth 1b 0'08	Synth 1b is a rhythmic <i>ostinato</i> heard as part of synth 1. It has a similar timbre to Synth 1 but has a staccato feel due to its VCA ADSR settings which include a fast attack and fast release. It has a starting note of e4.
Synth 2 0'31	Synth 2 is a pad synth in the A section which uses root position of the chords (not inverted). It has a smooth, bright sound with a medium-fast attack (sounding a fraction "late"). Synth 2 part is doubled at octave, creating a 6-note part per bar. It has a pitch range of e3-d5 (SP4).
Synth 3 1'03	Synth 3 is a synth melody heard in the B section. It has a fast attack, and a pitch range of b2-b3 (SP3).
Synth 4 1'03	Synth 4 is a synth melody an octave higher than synth 3, heard in the B section. It has a medium attack (the sound appears to begin "later" than synth 3) and a pitch range of b3-b4 (SP3).
Synth 5 1'34	Synth 5 is an anacrusis melody (i.e. some of its notes begin before beat 1 of the bar) which begins at the end of the B section. It has a "thick" "shimmery" timbre likely due to a chorus effect and reverb effects (listen at 2'07). It has a pitch range of d4-a4 (SP3).
Synth 6 1'51	Synth 6 is a pad synth heard in the C section which uses inverted position chords. It is string like in timbre. It has a medium attack and medium release, and a pitch range of b3-e4 (SP4).
Synth 7 1'03	Synth 7 is an octave higher than the bass synth, performing syncopated <i>ostinati</i> 16th notes. Its timbre is the same as the bass synth. It has a pitch range of c3-e3 (SP1a). Synth 7 is sidechained to the kick and this synth 7 ducking is particularly noticeable at 2'42.
Synth 8 2'46	Synth 8 comprises of pad stabs heard at 2'46, of an Em root position chord. It is doubled at octave creating a 6-note chord. It has noticeable delay applied, and a pitch range of e4-b5 (SP4c).
Bass Synth 0'31	The bass synth performs syncopated <i>ostinati</i> 16ths. It has a pitch range of c2-e2 (SP1a). The bass synth is sidechained to the kick and this bass ducking is particularly noticeable at 2'42.

My analysis of 'Diabolic' (2016) is divided into three sections which outline key style parameters. Firstly, writing riff-first (metal), secondly, innovating metal 'heaviness' and 'virtuosity' (Herbst, 2017b pp.232-233), and thirdly, use of arrangement including horror melody motifs and metal harmony.

Three Key Style Parameters of 'Diabolic' (2016)

1) Writing riff-first (metal)

When interviewed, Tony Kim informed me that the drums for 'Diabolic' (2016) were entirely programmed and that the song was written riff-first (labelled guitar 1 in Table 6.2) (Tony Kim, 2021). Writing riff-first reflects songwriting methods of thrash metal (Kahn-Harris, 2007, p.3), as does 'Diabolic's (2016) drum part, which despite being programmed, prioritises a human feel through varied tempi, to achieve metal's 'aggression, energy, and character' (Marrington, 2017, p.107). For 'Diabolic' (2016), DwtD avoided 'quantized' beats or 'gridding' (Marrington, 2017, p.80), as is often heard across styles of EDM. However, the drum patterns used in 'Diabolic' (2016), which largely utilise four-to-the-floor patterns, are indicative of EDM, thus DwtD have maintained traditions of metal through a fluid tempo, but included elements of EDM with drum patterns.

In general, metal drum parts are traditionally performed on a live kit (whether played one at a time or as a whole kit). Having said this, programmed drums are increasingly common for music creators (e.g. synthwave creators) who do not have access to a live drummer.

Programmed drums can be composed entirely within the DAW (i.e. they are not live drum samples), or hits can be performed by a drummer with midi drum pads, which record drum transients so sounds can be replaced later (Marrington, 2017, p.79).

Through an analysis of the song's tempo, it is evident that drums were programmed following the recording of guitar 1, and that guitar 1 was not played to a click. In other words, the programmed drums were played "to" the guitar (recorded bespoke, so to speak), with the drums following the timing of the essentially free metre guitar part. This was likely an intentional choice (i.e. playing the guitar free metre first), to allow for a more natural tempo which would ensure drums were not gridded. For clarity and reference of this section's analysis, I provide an indicative tempo map of 'Diabolic' (2016) (see Table 6.3 below).

Table 6.3: Indicative Tempo Map – Diabolic (2016) Dance with the Dead									
Section	Intro								
Bar (4/4)	1-6	7	8	9	10	11	12	13	14
Tempo (BPM)	121	124	117	126	120	122	117	124	123
Indicative Tempo Map – Diabolic (2016) Dance with the Dead									
Section	Intro		A Section				B Section		
Bar (4/4)	15	16	17-25	26-28	29-30	31-32	33-34	35	36
Tempo (BPM)	120	118	121	122	120	121	121	122	119
Indicative Tempo Map – Diabolic (2016) Dance with the Dead									

Section	B Section		C Section						
Bar (4/4)	37	38-48	49-50	51	52	53	54-56	57	58
Tempo (BPM)	123	121	121	120	121	120	122	119	120
Indicative Tempo Map – Diabolic (2016) Dance with the Dead									
Section	C Section								
Bar (4/4)	59	60	61-62	63-67					
Tempo (BPM)	123	121	120	122					

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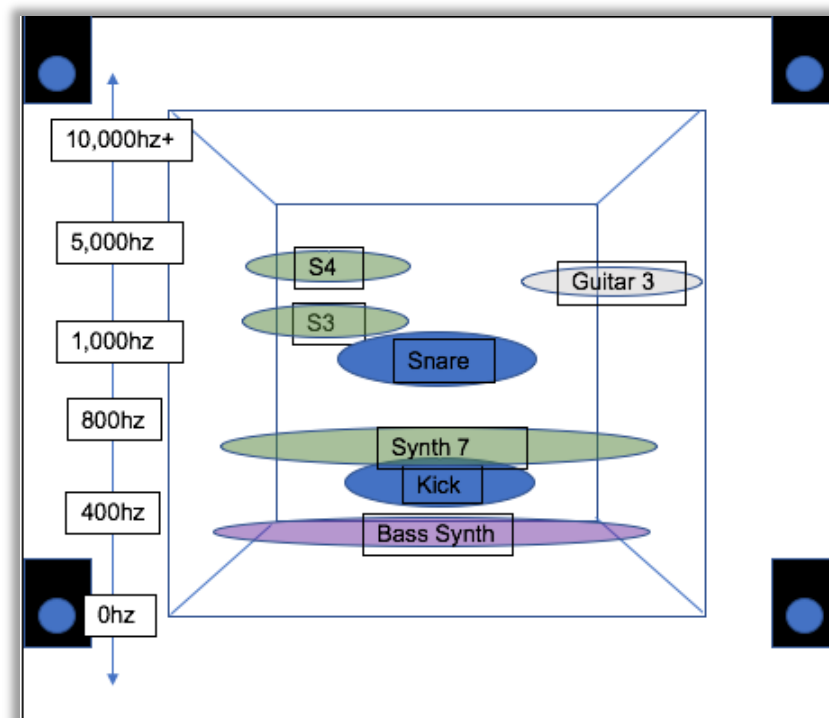
As shown by Table 6.3, tempo changes occur frequently throughout the song. These were not immediately noticeable upon initial listening, i.e. some changes from bar to bar are only one or two BPM. When setting the song to a click, the tempo changes became apparent. The fluidity of ‘Diabolic’s (2016) tempo reflects the values of metal which prioritise a human feel to achieve ‘aggression, energy, and character’ (Marrington, 2017, p.107), and resist the ‘quantized’ beats or ‘gridding’ (Marrington, 2017, p.80) as is often heard across styles of EDM (and is common of synthwave drums). There is a prominent use of sidechaining present, of the bass synth and synth 7 to the kick, this bass and synth 7 ducking is particularly noticeable at 2’42. This technique is typical of EDM, a style synthwave has roots in.

Whilst the fluid tempo of ‘Diabolic’s drums is more rooted in metal, the use of gated reverb (e.g. on the toms) is more indicative of the synthwave style due to gated reverb’s usage within songs of the 1980s decade. Diabolic’s (2016) drum patterns are also more indicative of the synthwave style, which use simple four-to-the-floor patterns (SP5). Prominent use of sidechaining is more indicative of synthwave (which has roots in EDM, where this technique is common). Equally, handclaps are chosen as the percussive drum element, rather than use of the crash or ride as would be common to styles of metal. It is clear that musical choices by DwtD for ‘Diabolic’ (2016) combine influences of metal and synthwave. Of metal, ‘Diabolic’s (2016) main guitar riff (heard at 0’00) signals 1980s metal, bearing resemblance to Iron Maiden’s ‘Flash of the Blade’ (1984) (hear at 0’00).⁵⁵ Guitar riffs in the context of metal were noted in some of my darksynth artist interviews (Irving Force, 2021; VHS Glitch, 2021, 3FORCE), supporting that this is one way in which darksynth artists realise metal musically in this subgenre.

2) Innovating metal ‘heaviness’ and ‘virtuosity’

⁵⁵‘Flash of the Blade’ (1984) accessible from: <<https://www.youtube.com/watch?v=Qx0s8OqgBlw>>.

My analysis showed that one key difference between styles of metal and darksynth are the panning positions of the lead guitar and melodic parts within the stereo field, which result in an altered or innovated treatment of metal ‘heaviness’ (Herbst, 2017b, p.233). Within metal, lower-equalisation and rhythm instruments contribute musically to ‘heaviness’, a descriptor considered central to the genre (Weinstein, 2000; Herbst 2017a; Mynett, 2013, p104). Specifically, ‘heaviness’ is often communicated through ‘quad-tracking’ (panning two rhythm guitar takes hard-left and two hard-right) (Marrington, 2017, p.135) and sonic blending of the bass and rhythm guitars through application of distortion (Marrington, 2017, p.145). As such, rhythm guitars in metal are panned outwards (e.g. hard left or hard right), while lead guitars (e.g. performing solos) are central in the stereo field to emphasis virtuosic playing (a key value of metal) (Herbst, 2017b, p.232). My analysis of ‘Diabolic’ (2016) found the opposite, where melodic parts and guitar solos were panned outwards, and not central (see Fig 6.21 below). What was panned centrally, were synthwave-adjacent style parameters, notably the four-to-the-floor drum part (SP5) and bass synth (SP1a) (doubled at octave, shown as synth 7 in Fig 6.21).



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Fig 6.21 Mix diagram of the B section (1'03-1'34) 'Diabolic'.

Fig 6.21 depicts an image of the stereo field for section B of ‘Diabolic’ (2016). It illustrates the guitar solo (guitar 3) panned right of the stereo field. Lead melodies synth 3 and 4 are also panned outwards, heard off-centre. Panned centrally are the synthwave-adjacent

elements, including the kick (SP5) and bass synth (SP1a). The bass synth is doubled at octave (named synth 7). The kick, snare, synth 7 and bass synth drive this section, perceivably the loudest parts. It is notable too that ‘Diabolic’s (2016) rhythmic elements (kick drum and bass synth) are side chained, to ensure the kick and bass synth do not compete to be heard. The heavy compression applied to the kick and snare also makes these parts perceivably loud. This relates to the production values of synthwave, which derive from EDM, where the drums drive the track (Butler, 2014, p.187). Overall, metal ‘heaviness’ and ‘virtuosity’ (Herbst, 2017, pp.232-233) are treated differently when balanced against synthwave elements, with panning decisions as per metal altered when within a synthwave context, here the darksynth subgenre.

3) Arrangement: horror melody motifs and metal harmony

The third key style parameter of darksynth relates to use of arrangement, with specific reference to harmony, melody and rhythm. Firstly, harmonic choices of ‘Diabolic’ (2016) reflect styles of metal. In the A section, synth 2 plays diatonic root position chords in the key of E minor, comprising a four-bar progression which uses chords VI, VII, and i (in E minor these are C major, D major and E minor, or chords 6, 7 and 1). The VI-VII-i chord progression is ‘one of the most frequent heavy metal chord progressions’ (Lilja, 2009, p.87), and is heard on ‘The Trooper’ (1983),⁵⁶ a song by metal group Iron Maiden. Melodies heard throughout ‘Diabolic’ (2016) use the Aeolian (natural) minor scale of E minor, with one use of a chromatic note a#5 (through a pitch bend at 3’29), heard at the end of the guitar solo in the B section. The Aeolian mode is one of the most common modes to metal (Walser, 1993, p.46).

Of rhythm and melody, ‘Diabolic’s (2016) main guitar riff (guitar 1, 1b) (heard also an octave higher on synth 1 and 1b – hear at 0’10), bears resemblance to the *Halloween* (1978) theme motif. Specifically, the *ostinato* nature of synth 1 and 1b (notated in Fig 6.22, heard clearly in ‘Diabolic’ [2016] at 0’08) reminded me of the Halloween main theme.

⁵⁶ ‘The Trooper’ is accessible from: <<https://www.youtube.com/watch?v=X4bgXH3sJ2Q>> (Iron Maiden, 2015).

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Fig 6.22 Guitar 1, Guitar 1b, Synth 1, Synth 1b at 0'08.

Ostinato is a prominent style parameter, having been discussed in Chapter 5 of synthwave's *ostinati* basslines, which derive from such a basslines usage in 1980s music. In 'Diabolic' (2016), the bass synth (SP1a) is heard in all sections besides the introduction, with both bass synth and synth 7 performing *ostinati*. Rather than being continuous 16ths, the bass synth and synth 7 perform a syncopated 16th rhythm which creates a sense of urgency. The use of faster rhythms in general (e.g. 8ths and 16ths) is present across melodies in 'Diabolic' (2016) (guitar 1, synth 1, synth 3, synth 4). This reflects stylistic parameters of metal, of 'fast' virtuoso melodic parts (Herbst, 2017b p.232). It also reflects the faster tempi or rhythms heard across horror soundtracks, in line with characters running away in urgency from an antagonist.

Of metal influences, the guitar solo heard in 'Diabolic' (2016) bears resemblance to that of the solo in 'Crazy Train' (1980) (by Ozzy Osbourne,⁵⁷ lead member of metal group Black Sabbath). Specifically, 'Diabolic's' (2016) solo has very similar melodic contouring to the solo heard in 'Crazy Train' (1980). This is in addition to both solos having similar use of harmonised guitar lines, with both incorporating this technique at the end of their respective solos. These style of harmonised guitar lines were used frequently by British metal artists, with Iron Maiden's 'Powerslave' (hear the solo at 4'22)⁵⁸ being another example. Metal scholars have recognised how 'melodic patterns in heavy metal frequently include long notes at the ends of phrases [...] to signify power and intensity, like sustained notes on the guitar' (Walser, 1993, p.49). Such long notes at the ends of phrases are heard at the end of 'Diabolic's' (2016) guitar solo, supporting the songs emulation of metal contouring.

One element I felt was missing from 'Diabolic' (2016) was the characteristic horror

⁵⁷ 'Crazy Train' is accessible from: <<https://www.youtube.com/watch?v=tMDFv5m18Pw>> (Ozzy Osbourne, 2020).

⁵⁸ 'Powerslave' is accessible from: <https://www.youtube.com/watch?v=V4U07_4rvbM> (IronMaidenHunter, 2009).

soundscape drones (voiced by synths) common to darksynth. Whilst not present in ‘Diabolic’ (2016), these can be heard across other darksynth songs such as ‘Welcome Back’ (2014) by Perturbator,⁵⁹ ‘Remember Me’ (2017) by Rose Thaler,⁶⁰ ‘All About Love’ (2020) by Sierra⁶¹ and ‘In the Face of Evil’ by Magic Sword (2015).⁶² These sorts of horror timbres or tones (often manifested through synth drones) were commented on by my darksynth interviewees, correlating that these are important to the characterisation of darksynth (VHS Glitch, 2021; Occams Laser, 2021).

6.4 Composition Commentary ‘Bones’ (2020)

To reconstruct darksynth style parameters found in ‘Bones’ (2020), I developed a composition using DAW Logic Pro X. The composition was not intended for release, and instead an experiment of darksynth style parameters. Lead guitarist of band 40,000 Leagues (a band that I ghost write vocals for) Joe Michael Leonard performed the guitar parts heard in the composition, due to his background in writing metal music (progressive metal) and history of performing live in metal bands. Finalised guitar parts were performed on a seven-string guitar, for their lower tunings which are appropriate to the metal style (Kahn-Harris, 2007, p.32).⁶³

I began my composition with no intended key but a tempo of 115BPM and a time signature of 4/4, based on my analyses of ‘Diabolic’ (2016). I decided on using programmed drums through Logic Pro X, reflecting interview data that these sorts of drums were common to darksynth (We Are Magonia, 2021; Cybercorpse, 2021; Occams Laser, 2021). As discussed previously, live drummers are not always available to darksynth artists, and hence other editing modes are employed to make darksynth drums sound “human”. Despite this, I decided to grid my drums, quantizing them heavily and not intending to adhere them to style traditions of metal. Instead, I chose to make them adhere to synthwave’s four-to-the-floor gridded and quantized style, as per synthwave’s roots in EDM.

To create initial melodic parts, I improvised on Logic Pro X’s virtual keyboard, creating a bassline (the bass synth part), which I formed into an *ostinato* (reflecting stylistic

⁵⁹ ‘Welcome Back’ (2014) is available from: <<https://www.youtube.com/watch?v=B-5F98w7s2I>> (Perturbator, 2020a).

⁶⁰ ‘Remember Me’ (2017) is available from: <https://www.youtube.com/watch?v=d_v6kEpJcY> (Rose Thaler, 2017).

⁶¹ ‘All About Love’ (2020) is available from: <<https://www.youtube.com/watch?v=ZUGX6IMChZo>> (The Brvtalist, 2020).

⁶² ‘In The Face of Evil’ (2015) is available from: <<https://www.youtube.com/watch?v=G02wKufX3nw>> (Magic Sword, 2015).

⁶³ Leonard’s guitar had an extra b string lower than the lowest e string, allowing him to ‘play a fourth lower than usual without losing the high-end notes’ (Leonard, 2020).

traits found in my analysis of 'Diabolic' [2016]). Based on this *ostinato* bassline (SP1a) part, I altered the tempo to 110BPM.

Following my decision to programme and grid drums, I created a drum pattern using my LinnDrum plug-in (a kick drum playing ¼ notes), which made the syncopation present in my *ostinati* bassline more pronounced (this notion was reflective of the synth bassline and drums in 'Diabolic' [2016]). I chose to use a LinnDrum (drum machine) plug-in for the timbre of my drums, to semiotically signal the 1980s and convey synthwave subcultural capital (SP5). I considered the synth timbres of other darksynth songs such as Perturbator's 'I Am the Night' (2012),⁶⁴ where synths were being used less melodically and more in a soundscape or drone function (SP1b), as per horror film soundtracks. I emulated these drones by selecting voicing options available from my Synclavier sampler plug-in. A hardware Synclavier sampler was used by John Carpenter for later films in the *Halloween* franchise,⁶⁵ so I felt this was an appropriate choice. My introduction had four synths in total, sounding a b (pitch/note) at unison and different octaves. This layering of parts reflected my findings of 'Diabolic' (2016) (i.e. guitar 1, guitar 1b, synth 1, synth 1b).

As per 'Diabolic' (2016), I decided 'Bones' (2020) would be instrumental. I planned to write three sections (A, B and C), as well as to emulate the transitional guitar segments heard in between sections of 'Diabolic' (2016) (e.g. the power chords⁶⁶ which lead back into the B section, heard at 2'10). I demonstrated these ideas in my composition 'Bones' (2020) by creating a power-chord rhythm transition between the introduction and my A section. These power chords were syncopated and used e and b pitches, rooting the composition in E minor. The session musician played the power chords inverted (by including a b pitch an octave below the E power chord pitches), a choice often opted by metal (Marrington, 2017, p.143).

When writing the A section, I decided a melody with a fast rhythm was needed to lead it, and so wrote a three-note ascending *ostinato* melody (e3-f3-d3) comprised of 16ths. This *ostinato* aimed to resemble the *Halloween* (1978) main theme, as well as the introduction of 'Diabolic' (2016). To emulate metal harmony, I incorporated an F natural in my A section melody (e3-f3-d3) to formulate the Phrygian mode of E minor (which uses a b2 – here the f natural [pitch/note], where E Aeolian mode would use an f# [pitch/note]). Use of the Aeolian (Walser, 1993, p.46) and Phrygian modes are common to metal (Biamonte, 2012, p.8), modes which serve to 'enhance the characteristically dark effect of heavy metal'

⁶⁴ 'I Am The Night' by Perturbator (2012) is available from: <https://www.youtube.com/watch?v=JDEE_c7kiCs> (PlasticPassions, 2012).

⁶⁵ As outlined here: <<https://www.soundonsound.com/people/john-carpenter>> (Tingen, 2016).

⁶⁶ Power chords here refers to chords played on guitar which include only the root and the fifth, with the 3rd of the chord absent.

(Biamonte, 2012, p.9). I chose Phrygian over Aeolian because metal considers the flat 2nd a hallmark harmonically (Biamonte, 2012, p.8). This choice differed from 'Diabolic' (2016), which used the Aeolian mode, and no modal harmony.

My use of the Phrygian mode continued throughout the A section, through the prominence of notes b2 and c2 used by an additional *ostinato* melody and soundscape synth. During my A section, I created a drum pattern of ¼ notes which alternated the kick and snare on each beat. These drum patterns reflected style parameters found in my analysis of 'Diabolic' (2016) (SP5). Towards the end of the A section, I began the lead synth melody for the B section, making this an anacrusis. Use of an anacrusis reflected style parameters found in my analysis of 'Diabolic' (2016) (heard at 1'34 in synth 5).

My B section was intended as a textural contrast to the A section, hence a more sparsely textured B section. This reflected the change in texture from section A to B found in my analysis of 'Diabolic' (2016), where parts (guitar 1, 1b, synth 1, 1b) are removed at the entrance to the B section. The only parts heard in my B section (1'19) are the drums (a ¼ note pattern alternating the kick and snare), the bass synth (now doubled an octave higher), the anacrusic lead synth part (doubled an octave higher), a guitar solo (with some harmonised notes) and one rhythm guitar part. To reflect style parameters found in my analysis of 'Diabolic' (2016), the rhythm guitar progression of 'Bones' (2020) also used pinched harmonics.

My C section was led by a guitar solo, which used a variety of guitar performance techniques such as vibrato,⁶⁷ sweep picking⁶⁸ (heard at 2'17), hammer ons⁶⁹ and pull offs⁷⁰ (heard 2'30-2'35). Some of these techniques were present in the guitar solo of 'Diabolic's' (2016) B section. In terms of my C section's arrangement, I included the bass synth (doubled an octave higher), two of the soundscape synths from the A section, and some half-time drums (heard halfway through the section). Though half time drums were not present in 'Diabolic' (2016) they are commonly used in darksynth songs,⁷¹ hence reflecting style traits of darksynth more broadly. The guitar solo of the C section used the harmonic minor mode, due to its semi-tonal notes (present in the Phrygian mode). This is different to 'Diabolic' (2016) (which is Aeolian) but reflects traditions of metal which use the Phrygian

⁶⁷ Vibrato is a combination of pushing or pulling the string up or down by keeping your finger in place and turning your fore-arm and wrist.

⁶⁸ Sweep picking is hitting multiple notes in one pass of the pick.

⁶⁹ Hammer ons refer to switching from a lower note to a higher one on the same string without re-picking.

⁷⁰ A pull-off is executed by striking the string and, while the note is ringing, releasing the fretting finger which allows the next note to sound.

⁷¹ Examples of halftime drums in darksynth songs: Paradise Warfare (2017) by Carpenter Brut: <<https://www.youtube.com/watch?v=SVf7NBncUy0>> (Carpenter Brut, 2015), Neo-Tokyo (2016) by Perturbator: <<https://www.youtube.com/watch?v=V0MER36tGeY>> (The Shadows Hand, 2016), Wrapped in Wax (2019) by GosT: <<https://www.youtube.com/watch?v=8ggBHYYTd8Xc>> (Century Media Records, 2009).

mode (a mode which incorporates the b2, a hallmark harmonically [Biamonte, 2012, p.8]). Finally, this section included some three-note arpeggios (E minor and Eb minor), which through use of chromaticism (the semitonal relationship between e and e flat pitches) semiotically supported the style of horror film soundtracks.

My repeat A section included a guitar solo with harmonised notes, as per my analysis of 'Diabolic' (2016), where these are heard in the B section at 3'14. I finally added a C section repeat, (using all half time drums on this hearing) and ended the song with a harmonised guitar melody and rhythm guitar. This melody used fast rhythms of 1/8 notes and 16th notes, reflecting stylistic elements found in my analysis of 'Diabolic' (2016).

6.4.1 Mixing 'Bones' (2020)

The composition was mixed by me, with session guitarist (and producer of metal-styled music) Leonard acting as an advisor to the process. Key mix decisions related to panning, based on the mix analyses of 'Diabolic' (2016). As per my analysis of 'Diabolic' (2016), 'Bones' (2020) aimed to centralise and emphasise heavier aspects of the composition, whilst panning outwards melodic and solo parts. This was in addition to supporting 'heaviness' through 'frequency coverage' (Herbst, 2017a, p.27) by 'quadrupling' (Marrington, 2017, p.135) rhythm guitar parts, which was not present in 'Diabolic' (2016) but is consistent with metal.

I heavily compressed my drums to make these perceivably loud, applying EQ alterations and gain boosts. The kick was side chained to the bass synth. These choices reflected style parameters of EDM (Brovig-Hanssen et al, 2020), considered musical parentage of synthwave. Particularly, I layered the kick drum (through two drum voicings and the addition of a sine wave) to provide more low-end frequencies than afforded by the LinnDrum plug-in alone. Across all instruments, I used mirrored equalisation to 'carve out' frequency space for each, making cuts and boosts, and particularly to allow lower frequency parts to be emphasised. In a discussion of metal music production, Herbst agreed the significance of these EQ decisions: 'one necessity for heaviness is the right frequency spectrum. Low frequencies provide the powerful sonic weight' (Herbst, 2017a, p.26). He highlighted also the importance of high frequencies, which 'contribute to aggressiveness' (Herbst, 2017a, p.26). To support the 'aggressiveness' of darksynth, the power chords heard in the introduction of 'Bones' (2020) had a telephone filter applied, which emphasises its mid-range frequencies.⁷²

⁷² Please refer to the Music Production Glossary.

To support conveying sounds of the 1980s as per subcultural capital of synthwave, the drums had gated reverb applied to them. Along the same vein, all guitar and synth parts had a large room reverb applied to them. To semiotically convey horror film timbres, the synth bass was supported with multiple drone synths, which emphasised lower EQ frequencies to contribute to sonic 'heaviness' (Herbst, 2017b, p.233). This choice helped define sections of the composition (particularly noticeable at 0'52). Drone parts had stereo spreaders applied to them, to allow them to fill the outer mix space (hard left and right). This had the additional effect of not impeding the mix space of centrally panned elements (the drums, bass synth and rhythm guitars).

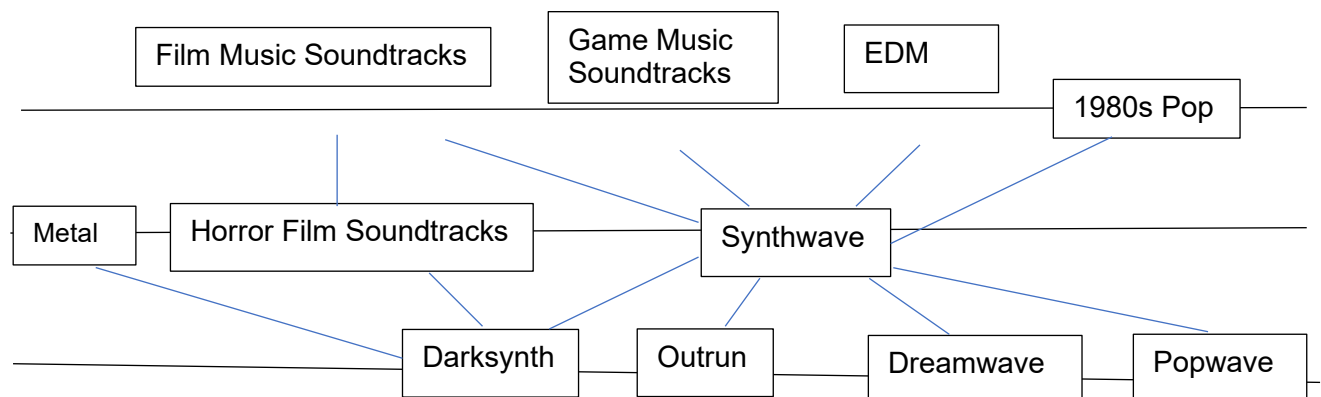
Chapter 6 Conclusion

To summarise sections 6.1 and 6.2, darksynth artists interviewed recognise their creative works in relation to the darksynth subgenre. In addition to this, it is clear from survey and interview data that a level of "bottom up" categorising is undertaken by community members, who consider and label artists as darksynth even if artists themselves do not wholly assume that label. Based on interview comments by artists who state that some of their songs would be described as darksynth, it would appear that community members have a strong perception of what they think darksynth sounds like musically. From the data presented in this chapter, it is clear that these perceptions present a bias towards the sound of male darksynth artists. In this regard, it appears that the music by male darksynth artists is validated by community members as the most indicative of the darksynth sound. Female and non-binary darksynth artists, who are more willing to push the boundaries (or limits) of darksynth, are in some cases less recognised in relation to the discourse of the subgenre. This makes them less visible within the community.

With relation to the musical influences of darksynth, these are predominantly metal and horror film soundtrack. This is evident from survey data, interviews with darksynth artists and virtual ethnography. Whilst Carpenter is more broadly acknowledged by the community for his links to soundtrack music and speciality with synths (two facts which synchronise key identity components of the online synthwave community), it is the darksynth subgenre which is musically influenced by his soundscapes. In incorporating horror themes to their music, darksynth artists identify with musical categories of darksynth, whilst simultaneously identifying with broader subcultural capital of synthwave (e.g. soundtrack music and John Carpenter).

Importantly, there are clear crossovers in thematic material between horror film soundtracks and metal. Both have historically involved themes of Satanism, devil worshipping and the occult. It is hence unsurprising that this combination of musical and

thematic ideas has yielded such a successful subgenre within the synthwave discourse, a genre which is already imbued with concepts of soundtrack music, and which prioritises synths in the same way that Carpenter historically has. The darksynth subgenre has allowed 'metalheads' to 'gateway' from metal to synthwave 'under the influence of John Carpenter' (as the chapter is named) because of the suitability in combination of certain musical styles. These can be thought of and represented by a musical family tree, which posits soundtrack music and EDM as parents to synthwave and grandparents to darksynth, and horror film soundtrack and metal as parents to darksynth. Fig 6.23 below demonstrates.



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Fig 6.23 A 'family tree' of Synthwave i.e influential genres to synthwave and subgenres of synthwave

A final note on gender – the most popular or well-known artists which represent darksynth's influential styles (metal and horror film soundtracks) are male. Women are less represented as film composers (Grills, 2019), and metal's male artist demographic overall is well documented (Weinstein, 2000, p.67; Walser, 1993, p.109; Bayer, 2009, p.17). Despite arguments that metal is 'a rejection of the cultural values associated with femininity'⁷³ (Weinstein, 2000, p.67) rather than the exclusion of women, it is clear that masculinity and male artists have formed a large role in the representation and dominant narrative of darksynth. This is despite the success of female fronted symphonic metal bands such as Nightwish, Within Temptation and Lacuna Coil (Kahn-Harris, 2007, p.71), metalcore bands such as Spiritbox, and female film composers such as Delia Derbyshire, Wendy Carlos and Elisabeth Lutyens.

Consequently, I believe that the musical influences of darksynth inhibits female and non-binary darksynth artists' ability to authentically identify with the subgenre. With

⁷³ Kearney (2017) provides a list of feminine and masculine personality traits, of which feminine traits include: weak, passive, dependent, relational, irrational/emotional, dumb, technophobic, consumerist, natural (Kearney, 2017, p.34).

darksynth having mapped onto the musical tenets of metal and horror film soundtracks (and particularly those of the 1980s), it has simultaneously carried forward cultural issues of gender. This is problematic for the visibility and representation of female and non-binary darksynth artists, since it presents a narrative that the subgenres' artists ought to be male or represent masculine traits to be authentic.

Chapter 7: Female Topleiners: Popwave and Gendered Practices of Synthwave

In this chapter, I examine one subgenre of synthwave, popwave. In doing so, I consider issues of gender and female representation in the online synthwave community. Female artists constitute the majority artist demographic of popwave, a unique trait only applicable to this particular synthwave subgenre. Accordingly, popwave was chosen as the subject of this chapter, to investigate the role of female artists as toplineers within the online synthwave community. This supports also an investigation of synthwave's creative processes (here of the popwave subgenre), which I explore through autoethnography. The chapter also presents findings from my virtual ethnography, including interviews with seventeen popwave artists. The chapter is structured into four sections;

Firstly, a community definition of popwave is provided, synthesising interviews, survey data and findings of the virtual ethnography (7.1). Secondly, I present two case studies ('Fluorescent Light' [2022] and *Superterranea* [2020]) of my own work as a female toplineer within the online synthwave community (7.2). Thirdly, one representative popwave song is analysed and deconstructed for synthwave style parameters ('Beyond Memory [Extended Version]' [2018]) (7.3). Lastly, one composition commentary is provided to inform of my experiment with writing a popwave song within the online synthwave community ('Killing Dreams' [2019]) (7.4). I conclude the chapter by evaluating my research findings drawn from my autoethnography and virtual ethnography.

7.1 Defining Popwave & Interviewing Popwave Artists

Popwave formed in the mid 2010s, alongside the release of key synthwave albums by artists The Midnight, Gunship, and NINA.⁷⁴ Whilst NINA is the only female artist of these three, both Gunship and The Midnight have featured female vocalists regularly across their respective albums. This supported the representation of female vocalists on synthwave songs within the community. Popwave was also given recognition by synthwave journalist and playlist curator Preston Cram aka Iron Skullet, through his (now defunct) Spotify playlist 'Popwave/Dreamwave (Gunship, The Midnight, FM-84, etc)' and article (2018d). Whilst his playlist did include female artists (i.e. in their own right and not solely as feature artists), it should be noted that female artists are not represented in the title of his playlist, which

⁷⁴ Albums by The Midnight include – *Days of Thunder* (2014), *Endless Summer* (2016), *Kids* (2018), *Monsters* (2020), albums by Gunship – *Gunship* (2015), *Dark All Day* (2018), albums by NINA – *Sleepwalking* (2018), *Synthian* (2020), *In The Beginning* (2021).

instead named only male artists or male artists who feature female artists in their songs. This is not representative given the number of female artists within the popwave subgenre.

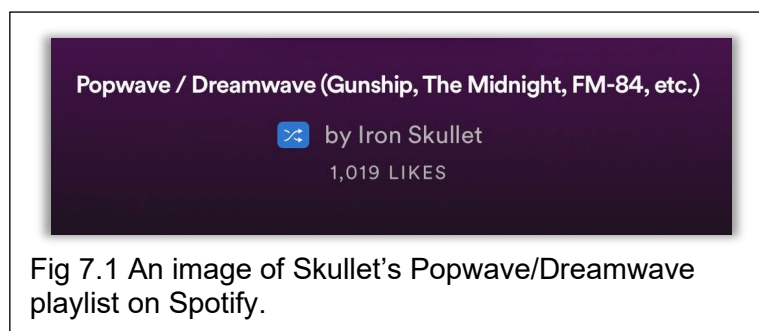


Fig 7.1 An image of Skullet's Popwave/Dreamwave playlist on Spotify.

Cram supported the playlist with an article (2018d) on his (now defunct) website, where he detailed popwave as a style which blends synthwave and mainstream pop. He clarified 'post-millennial vocal styles' as key to popwave, as well as use of effects and production techniques from 21st century pop music (Cram, 2018d). Cram's article named exemplar popwave artists: 'The Midnight, Gunship, FM-84, Timecop1983, and Nina [female artist]', as well as PRIZM (female artist) and The Bad Dreamers (Cram, 2018d). It is notable when scrutinizing Cram's popwave article (Cram, 2018d), that it is not very representative of female popwave artists, nor does it reflect that popwave is in fact an area where female artists have been particularly active within the synthwave community. Of the ten artists mentioned in Cram's article, eight are male and two are female (Cram, 2018d).

7.1.1 Interviewing Female Popwave Artists

Popwave is particularly unique in its artist demographic when compared to other synthwave subgenres. Overall, the synthwave community has a majority male artist demographic. Though this may initially link to synthwave artists' commonly being music producers (an area where males have been historically prominent), I was curious to investigate the reasons for popwave being well-populated by female artists where other subgenres are not. As such, the following popwave artists were interviewed: Bunny X, Parallels, NINA, CZARINA (which is stylised as C Z A R I N A on online platforms, and CZARINA identifies as non-binary with she/they pronouns), DJ She-Ra, Oceanside85, Virtual Intelligence, Daria Danatelli, Oblique, Megan McDuffee, Mecha Maiko, Rose Corps, Polychrome, Magenta, Kaarin Zoe Lee and two anonymous artists. Other female popwave artists (not interviewed) include: Primo the Alien, Dana Jean Pheonix, PRIZM, Jessie Frye, KRISTINE, Electric Youth, Yota, Roxi Drive, Kid Moxie, Ashley Anita. Further popwave artists are notable on the *Ladies of Synth* (2017)

compilation album, compiled by Scott Forte (founder of independent synthwave record label Retrosynth Records)⁷⁵ and made available on Bandcamp.⁷⁶



Interview responses from popwave artists were categorised thematically: 1) responsibilities in the creative process, 2) female representation within the synthwave community and 3) nostalgia and the 1980s. The latter category comprised comments which were freely inducted by interviewees, of nostalgia and the 1980s (such responses were in keeping with synthwave subcultural capital). A mix of solo and group artists were interviewed, with two groups inclusive of at least one male member (Bunny X and Polychrome). When a group were interviewed, one member reported for the whole group, except in the case of Bunny X, where both members (Abigail Gordon and Mary Hanley) were interviewed. Since I was unable to obtain an interview with Primo the Alien, I include data from my virtual ethnography about her roles in the creative process of song 'My Delorean' (2019).

Theme 1: Responsibilities in the creative process

One of the creative responsibilities (or roles) that many artists commented on was toplining, a name for creating the lyrics and vocal melody for an instrumental song. This was commented on by all interviewees – an expected remark given that vocal arrangements are a defining feature of popwave. Of toplining, interviewees spoke about their own music, as well as collaborative work with other artists. Bunny X described of their own work: 'I do a lot of the vocal arranging [and Mary Hanley and] I write [our] song lyrics' (Gordon, 2020). Daria Danatelli described a comparable experience, informing additionally that her producer provides the instrumentals (Daria Danatelli, 2020). Polychrome also spoke of their producer (who is simultaneously one of the two group members) taking on the role of 'songwriter' and

⁷⁵ The label's website is available here: <<https://grates.com/artists/retrosynth>>.

⁷⁶ *Ladies of Synth* (2017) compilation album available from: <<https://retrosynthrecords.bandcamp.com/album/ladies-of-synth>>.

‘instrumentalist’ (Harrison, 2020). Bunny X spoke less of their producer providing instrumentals, and more of his collaborative role in the songwriting process, helping to ‘create the tracks’ (Hanley, 2020). These experiences mirror how NINA’s ‘Beyond Memory’ (2018) was created (see Section 7.3), with producers, performers and songwriters collectively part of the creative process.

When speaking of collaboration (outside of artists’ own releases), interviewees commonly reported providing toplines for producers. Megan McDuffee explained, ‘I usually handle the melody [...] the lyrics and the vocal performances’ (Megan McDuffee, 2020). Parallels described a similar experience of her collaboration with Futurecop!, in that she ‘wrote and performed melodies and lyrics to the songs’ (Dodson, 2020).

Whilst references to toplining were common, artists also outlined which instruments they played (such as synth), as well as their role in music production. Roles with music production ranged from working with a producer, collaborating with or providing input to a producer, and acting as producer. In all but one case (Bunny X), the producer was simultaneously an artist group member. In total, five of seventeen artists described producing their own songs. Representative of this, CZARINA (who identifies as non-binary with she/they pronouns) outlined: ‘I do all the writing, composing, arrangement, production, vocal and instrumental performances, mixing and engineering’ (Kitsune, 2020). Their (CZARINA’s) Bandcamp website supports this, with previous album *Painted Holograms* (2018) crediting them as producer. Megan McDuffee, (who was previously a ‘video game composer by trade’ [McDuffee, 2020]) is another artist who self-produces. She is credited on her Bandcamp website as producer for EP *Barely Covered* (2018) and album *Pulse* (2020). Mecha Maiko also produces her own music (Stewart, 2021), and her bandcamp website credits her as such on her EP *Unloved and Unreleased* (2018). Other artists I interviewed spoke of their role collaborating alongside the producer. Bunny X explained, ‘I do a lot of the [...] production work (with the help of our producers)’ (Gordon, 2020). On the whole, artists did not demarcate the role of producer as a singular creative position, with only one implying that this was the case (Oblique, 2020).

One member of Parallels spoke quite plainly about her role as a producer, showing some awareness of gender-bias, but expressing that she was not sure if this was the case: ‘As someone who identifies as female and is a producer, writer, performer and mixing engineer, I have at times encountered people who are surprised that I’m involved in so many aspects of the creative process’ (Dodson, 2020). She described also her experience of being stereotyped as a singer-songwriter, adding that this sort of gender bias is not limited to synthwave. Of collaborations, some interviewees described scenarios where they contributed more than the requested topline. Parallels explained how she, ‘added some

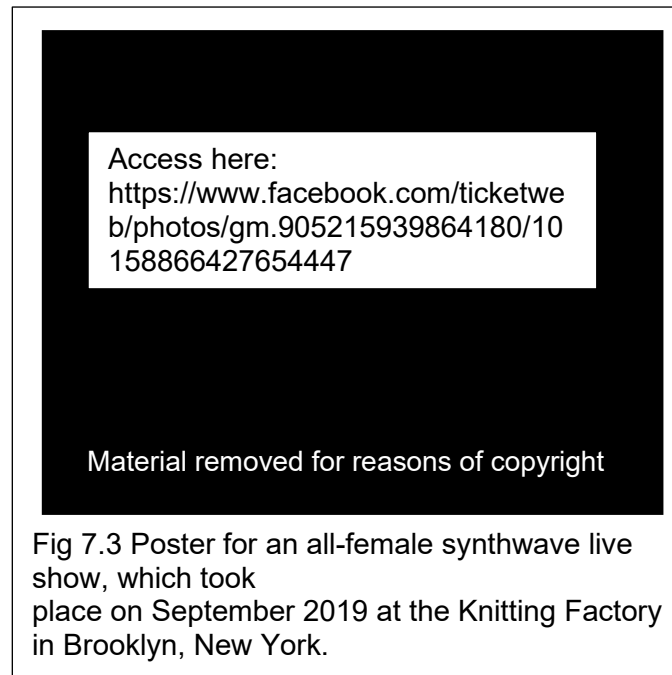
additional production ideas, synth lines and even wrote some guitar parts' when working with Futurecop! (Dodson, 2020).

Though not interviewed⁷⁷, popwave artist Primo the Alien reported via two public blog posts (shared via Twitter in February and March 2020 respectively)⁷⁸ a song writing crediting issue she experienced when collaborating with artist Timecop1983. This was regarding her song 'My Delorean' (2019), which was fully written and initially produced by her. She agreed to collaborate with Timecop1983 to release 'My Delorean' (2019), in that he would mix and master the song without adding anything musically. When the song was released, Primo had been incorrectly credited as a featured artist only. Having challenged this, Primo later reported that the situation had been rectified (outlined in blog post 'The Update' March 2020) and crediting of 'My DeLorean' (2019) altered to her wishes. Importantly, this situation demonstrates more of an issue with improper role demarcation within the creative process of synthwave, rather than presenting wholly as an issue of exploiting female artists. However, since female artists are not represented proportionally across the whole synthwave community, this situation did not improve the notion of inclusivity in the synthwave community.

Just as Primo's actions demonstrate self-value of her creative input, my interviewees showed similar attitudes in their characterisation of topline contributions to music producers. Bunny X commented, 'Sometimes the artist [...] has the music ready to go, so we write the vocal arrangements and lyrics [...] and help to shape the direction and layout of the song' (Hanley, 2020). Other collaborations spoken about by interviewees concerned performing live shows. Parallels explained, 'We've toured with Nina and performed with many synthwave artists such as Dana Jean Phoenix, Michael Oakley, Timecop1983, Kalax, FM Attack, Mecha Maiko, CZARINA and Bunny X' (Dodson, 2020). It was clear from comments such as these that many of my interviewees had met each other offline and were not just familiar with each other via the online synthwave community. Just as Parallels (Dodson, 2020) had spoken about performing a show with Bunny X, Bunny X described performing a live show with Parallels. This took place at the Knitting Factory in Brooklyn (New York), and had an 'all female [...] line up' (Hanley, 2020). Hanley described, 'The bill consisted of us, CZARINA, Parallels and NINA.' (Hanley, 2020). The poster for the event is shown in Fig 6.3.

⁷⁷ Though Primo responded to me regarding an interview, this interview never materialised.

⁷⁸ The original blog posts are no longer active: 'The Truth' February 2020
<<https://primothealien.com/blog/2020/2/19/the-truth>>, Blog Post 'The Update' March 2020
<<https://primothealien.com/blog/2020/3/27/the-update>>.



Theme 2: Female representation within the synthwave community

One interview question asked directly about interviewees' experiences' as popwave artists. A mixture of responses was received with regard to gendered practices. Some interviewees described feeling 'welcomed' (Premo, 2020; Harrison, 2020) to what they described as the synthwave 'scene' or 'community' (Magenta, 2020; Lee, 2020). Whilst some responses of this nature made no reference to gender at all (Premo, 2020; Magenta 2020; Daria Danatelli, 2020; Anon 2, 2020) some addressed gender but denied being 'treated all that different [as a female]' (Winters, 2020).

Some interviewees showed awareness of gendered practices but had not experienced them: 'I have heard some female artists who feel neglected by the scene' (Lee, 2020). This particular interviewee commented also on the popularity and reputation of female synthwave artists more broadly: '[...] some of the top recognized artists [within the synthwave community] are female (but of course, not THE top artist)' (Lee, 2020). Her comments hint at some observable progress of gender representation within the synthwave community, but simultaneously recognise male artists as the 'top' synthwave artists.

CZARINA also recognised progress being made within the synthwave community, advising that 'women shouldn't be discouraged', because 'synthwave is evolving and we see a lot of that [referring to issues of gender and female representation] changing' (Kitsune, 2020). Specifically, CZARINA exemplified female producers as an area of synthwave practices which are changing the balance in terms of gender representation, describing that 'the support amongst female producers is strong and admirable [within the synthwave community]' (Kitsune, 2020). Oceanside85 also recognised female producers present in the

synthwave community, 'there are many more women in the scene [2020] than 5 years ago [2015]. I am really happy to see so many female artists and producers releasing [...] music' (Oceanside85, 2020). Though not interviewed, Laura Fares (aka LAU) of artist NINA is also a music producer and produced NINA's cover of Blondie's 'Heart of Glass'⁷⁹ (originally 1978) (discussed in Section 7.3).

In an effort to explain the barriers to progress of female gender representation within the synthwave community, CZARINA attested the historical demographic of the male 'bedroom producer' as one of the root problems. They explained, 'Synthwave is definitely a man's world. I think it's a gateway music genre and scene for a lot of bedroom producers who are starting in music and most are men. Females do take a minority position when it comes to the male counterparts. The established artists in the genre outnumber established female artists by about 12 to 1 if not more' (Kitsune, 2020). Megan McDuffee agreed CZARINA's comments, characterising the synthwave community as 'insanely male-dominated, as are most music professions' (Megan McDuffee, 2020). She added, '[As a female] I've faced some stronger scrutiny than perhaps some of my male peers' (Megan McDuffee, 2020). However, she outlined positives with this, feeling that being a female music producer makes her 'stand out', and expressed proudness for being 'one of the only female synthwave artists who also produces, mixes, and masters [her] own music' (Megan McDuffee, 2020).

CZARINA's comments about support for female artists within the synthwave community were echoed by numerous interviewees. Virtual Intelligence explained her enjoyment of: 'The camaraderie of the Synthfam [...] I speak to a lot of artists in the synthfam regularly online and in person [and] many of us are willing to support each other' (Winters, 2020). Oblique's comments synchronised: 'I'm surprised about how [many] female artists I have met that make synthwave. We're connected through the social networks and we support each other. It's great!' (Oblique, 2020).⁸⁰ Bunny X made similar comments but framed these more as a necessity due to being female: '[...] with other female artists in the synthwave scene, we've needed to actively make ourselves more visible by teaming up to play shows together or do tours' (Gordon, 2020). Despite such comments, Bunny X recognised a shift in treatment of female artists within the synthwave community, 'It feels like it's becoming more inclusive thanks to awesome promoters like Outland and VHS Vision. I think there is a desire amongst many men in the scene (whether they be bloggers, reviewers, writers, interviewers, hosts, content creators and fellow artists, etc) to help lift

⁷⁹ 'Heart of Glass' (2021) is accessible from: <<https://www.youtube.com/watch?v=xvln6D2H5Hw>> (Aztec Records UK, 2021).

⁸⁰ Hennekam et al's (2019) discussion of female composers' use of an online CoP to build and support their careers' describes a similar instance as Oblique (2020).

female artists up' (Gordon, 2020). Like CZARINA, Bunny X's comments described the changing landscape of female artists and their position within synthwave as an ongoing process. However, Bunny X did recognize a lessened visibility for female artists when compared to men, which furthered Kaarin Zoe Lee's sentiments. Just as Lee (2020) described '[...] some of the top recognized artists [within the synthwave community] are female (but of course, not THE top artist).' Bunny X added: 'female artists don't enjoy the same attention as some of their male counterparts, [who are] on popular playlists with large followings. That is definitely an area for improvement' (Gordon, 2020). Bunny X's comments extend those of Kaarin Zoe Lee, in offering a reason for why female synthwave artists are less visible and hence less recognised.

One interviewee reported instances of unfavourable treatment she had experienced within the synthwave community. She described: 'being shamed/bullied for being a feminist by males [...] [Being] scoffed at to my face for how much I get paid for private gigs – as if to say I'm not worth it [...] To be promised [performance work] then have [it] taken away and replaced with substandard [performers] who don't even know what synthwave is, because the males involved are bros' (Anon 3, 2020). Anon 3 explained her reasons for opting to anonymise her interview responses; describing a fear for repercussions within the community upon this thesis' publishing (i.e. potential poor treatment for speaking out about male members' less than favorable treatment of women within the synthwave community). Anon 3's comments demonstrate a level of power struggle with relation to gender within the online synthwave community, and women's potential lack of agency because of this.

Despite reporting grievances, Anon 3 spoke positively of support received from some members of the synthwave community. She described: 'great promoters, awesome artists and synthwave supporters' within the community, advising 'never give up; never let the bastards get you down!' (Anon 3, 2020). Her final remark comments more broadly on gender issues in society, hinting at gender equality as an ongoing problem. Bunny X also commented about gender more broadly, speaking beyond issues within the synthwave community and in reference to the music industry in general. Despite relishing the all-female line up and praising the promoters involved with organising the performance at Knitting Factory, Bunny X criticized the venue: 'Unfortunately, we got stuck with quite a few seemingly unnecessary charges. The lineup was all female, and we were opening support. I've always wondered if it would have been that way if we were dudes' (Hanley, 2020).

Theme 3: Nostalgia and the 1980s

The final category was offered by interviewees, unprompted by my interview questions (though reasonably expected given data from my virtual ethnography). Comments about

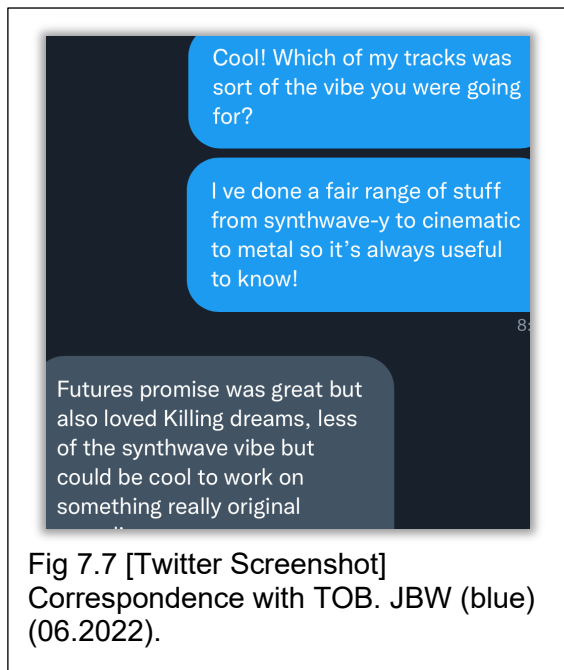
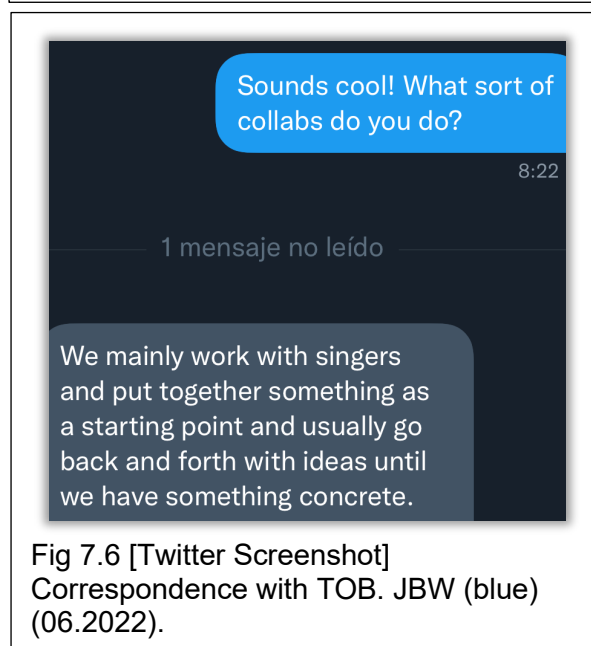
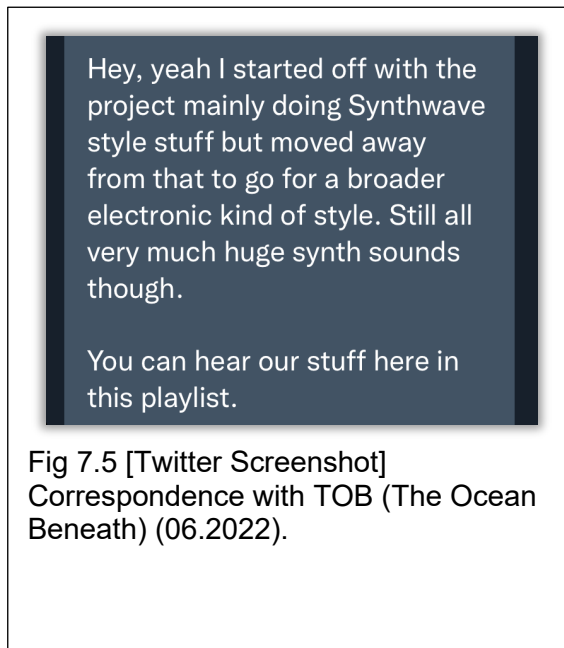
nostalgia and the 1980s again referenced the synthwave community and this groups shared music interests, as well as speaking of childhood memories and generations. Magenta described: 'They [the synthwave community] have a genuine love for the music [and] a love for [19]80s nostalgia, which is great' (Magenta, 2020). Rose Corps made similar comments: 'I have always been a fan of [19]80s music and synths [...] so I first came across synthwave through discovering tracks on SoundCloud and Twitter' (Premo, 2020). Virtual Intelligence's comments synchronised, 'When you meet up with somebody at a show or online you know that your love for nostalgia and feels of 1980s inspired music is shared' (Winters, 2020). Virtual Intelligence also spoke about the 1980s and her love of synthwave music in reference to her childhood, 'I have always been into 1980s vibes. I'm a Millennial, and I grew up in the *Miami Vice* [1984-1989] age of music' (Winters, 2020). Daria Danatelli commented similarly: 'I love synthwave because this genre gives me that very opportunity to be teleported into the time when I was a child and to shape my childish impressions and memories into the modern music' (Daria Danatelli, 2020).

Anon 3 suggested synthwave's links to the 1980s was a contributor to issues of gender. She described, 'I believe there seems to be an unfortunate backwards slide with a lot of people in the scene when it comes to sexism and objectification of females' (Anon 3). She suggested that synthwave's privileging of 1980s aesthetics may contribute to sexism within the style, 'synthwave has a [19]80s aesthetic [which means that] half naked women, soft porn type "retro" imagery is the norm. When we've actually come a long way since those days (thank goodness!) and seeing it plastered all over the videos, Instagram posts and such is offensive and in really bad taste' (Anon 3, 2020). Bunny X too made comments about female artists' appearances but did not suggest that this was owed to 1980s popular culture (as suggested by Anon 3). She described 'unfortunate comments on social media [...] attempt to tear female artists down by commenting solely on their looks [...] and disregarding their music' (Gordon, 2020). These comments suggest a devaluing or overlooking of female artist's music due to their gender.

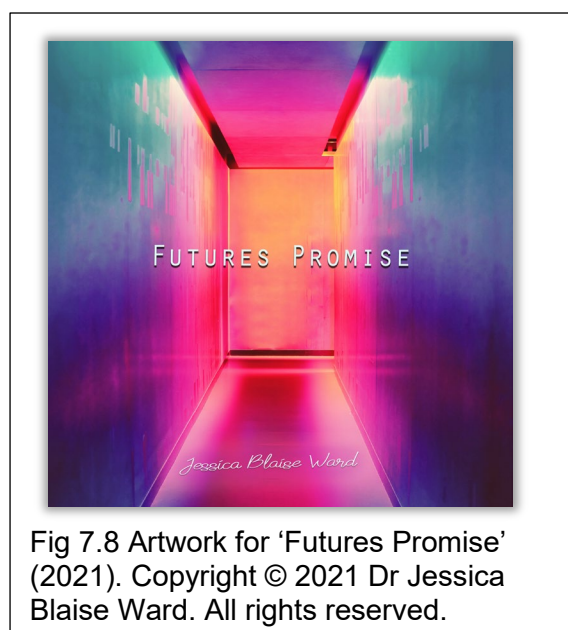
Section 7.2 Autoethnographic experiences as a female topliner in the Online Synthwave Community

7.2.1 'Fluorescent Light' (2022)

In June 2022, I was contacted by a producer on Twitter who had ties to the online synthwave community. His artist name was The Ocean Beneath (referred to as TOB), and he invited me to collaborate with him on a song in a toplining capacity (see Fig 7.4). My responses are shown in blue and labelled as JBW.



He had come across my songs on Spotify and named two that he liked in particular, 'Futures Promise' (2021) and 'Killing Dreams' (2019), and I asked if these were the sort of song 'vibe' (meaning style, genre) that he would want to collaborate on.



As we messaged back and forth about our interests in writing EDM and synthwave in general, he asked me if I had produced 'the music' for 'Futures Promise' (2021) and 'Killing Dreams' (2019). My response about co-producing in fact made reference to my producer Jan Hajszen, who mixes my songs, but with input from me (which reflects my own background in music production). If TOB was referring to who wrote the 'the music', or 'the instrumental' for my songs, I never clarified that this was my work alone. On reflection, I did not feel the need to, but positively, it seemed the case that TOB assumed this from seeing the only artist name attached to 'Futures Promise' and (2021) and 'Killing Dreams' (2019) was my own. As such, I drew the conclusion that TOB did not presume me to be solely a topline writer, despite this being the only collaborative skill he had requested. It seems odd to have explained this point with such detail, but I consider these sorts of perceptions important, because whilst I am a singer (and topline), I would not want my skillset (as a songwriter, performer, producer) to be overlooked due to my gender. Whilst it had not been my experience with TOB, I wondered if this sort of gendered instrument stereotyping was impeding female artists' abilities to be taken seriously within in the synthwave community.

During my initial communication with TOB, I scrolled his profile and saw he regularly engaged with the online synthwave community. His work was featured on synthwave playlists and his followers were members of the online community, two of whom I had previously interviewed – Bunny X and DJ She-Ra.



Fig 7.10 A screenshot of author's song, 'Futures Promise' (2021) on Spotify.



Fig 7.11 A Tweet by TOB (TOB, Twitter, 2022).

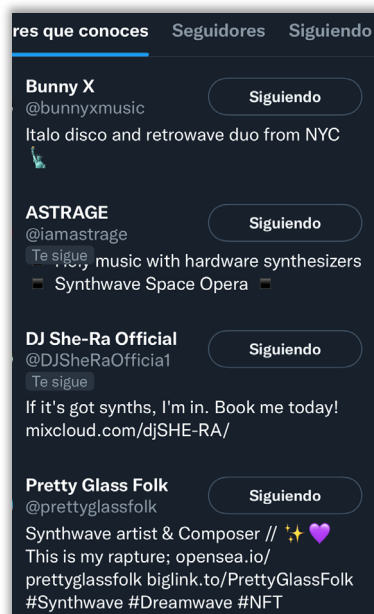


Fig 7.12 'Followers you know'. Some of TOB's followers (Twitter, 2022).

As TOB and I exchanged DMs, I told him a little about my background with the synthwave community and my PhD. Our conversation ended with my agreeing to listen to some of his instrumentals (for which he provided a private Soundcloud link). Each were labelled with arbitrary demo letter names, and it was 'AH' that intrigued me the most, largely because it was most closely synthwave-styled of all the tracks. I immediately noticed style parameters: SP1a – Synth Bass (here 16ths), SP3a – Detuned Saw Lead, SP4a – Lush Moving Pad and SP5 – Four-to-the-floor Drums, and began to form a topline (by ear) by listening to the track on repeat on my way home from work one day.

I sent the demo to TOB a day or so later, with some other questions about potential publishing splits, my intentions for the song's lyrical narrative, and a proposed song title of 'Fluorescent Light'. This title was inspired by the neon lights design often used by synthwave artists in their artwork. Keywords and phrases in the lyrics also targeted the synthwave style,

and included dreams, skies, signs, brightness, and stated how ‘I made a deal in fluorescent light’. The ‘deal’ lyric was inspired by having recently relistened to ‘Running up that Hill’ (1985) by Kate Bush, which had been synced (i.e. music synchronisation) to an episode of *Stranger Things* series 4 (2022). This series is considered key subcultural capital of synthwave, due to its setting in the 1980s, and the show’s soundtrack having been written by synthwave group S U R V I V E.

TOB responded promptly to my email with the song’s topline demo, confirming a 50/50 split with the song’s publishing and expressing his like of the topline so far. In the weeks that followed, we conversed via email to finalise the song’s arrangement, which was altered from its original structure based on my topline. We also began to discuss marketing strategies, and possible campaign ideas to support the release of the song. This involved forming an EPK (electronic press kit), complete with headshots, artist biographies, an overview of the song’s narrative, the song’s final mix, and artwork. TOB and I had discussed how the song would be branded as synthwave, and as such we wrote a song biography in our EPK which reflected this: ‘Fluorescent Light is a synthwave nostalgia trip touching on our courage, inner strength and determination. It’s about showing the world what you’ve got and taking ownership of your own story’.

The headshots chosen for the EPK aimed to support the promotion of the song in line with the synthwave aesthetic. The artwork commissioned for the song was too designed with the synthwave aesthetic in mind. Figures 7.13 and 7.14 below demonstrate these, of note being the neon pink and purple colour scheme of the artwork (and the purple eyeshadow made prominent in my headshot). The artwork’s grid lines and sunset are also significant, and support visual aesthetics of synthwave.

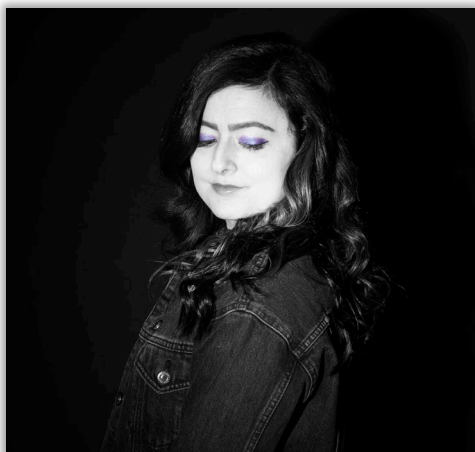


Fig 7.13 Headshot of JBW used in the EPK for ‘Fluorescent Light’ (2022). Copyright © 2022 Dr Jessica Blaise Ward, @ameli.e_x, @lilykhal. All rights reserved. Headshot taken by [Instagram] @ameli.e_x and @lilykhal.



Fig 7.14 Artwork for ‘Fluorescent Light’ (2022) designed by [Instagram] @kiki_and_elvis_create. Copyright © 2022 kiki_and_elvis_create & Matt Burnside. All rights reserved.

Both my headshot and the artwork for ‘Fluorescent Light’ match the aesthetic of headshots and artwork by popwave artists, such as the work of NINA and Bunny X (see for example NINA’s album cover for *In The Beginning* [2021] [Fig 7.35] or *Sleepwalking* [2018] [Fig 7.34] below – which have similar colour palettes and positioning).

Figures 7.15-7.18 below demonstrate some of the song’s online campaign through Twitter and Instagram ahead of its release (a practice known as “plugging”). The song was hashtagged as synthwave and synthfam and TOB posted content also about his Korg Prologue, a synth which was used on the song and supported synthwave subcultural capital. Members of the online synthwave community engaged with our posts, through likes or retweets (one such example is shown in Fig 7.17). Coincidentally, RevivalSynth.com was the Twitter account which contacted me previously about adding my song ‘Strangers in the Dark’ (2019) to one of their playlists (discussed in Chapter 4).



New single ft. @blaisejess coming very soon! Also features loads of this beautiful @korgofficial Prologue for good measure.

#Synthesizer #synth #synthwave #korg #prologue #leeds #music

Fig 7.15 A [Twitter Screenshot] Tweet by TOB (11.2022).



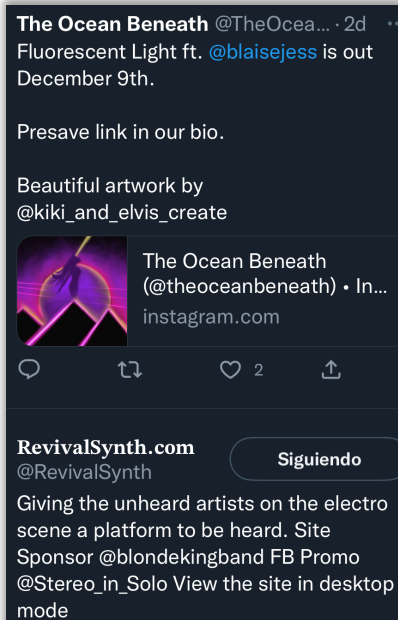
#Spotify presave for our new single Fluorescent Light ft. @blaisejess just went live.

Hit the link to presave 👍👍

distrokid.com/hyperfollow/th...

#Synthwave #Synth #Music #Leeds


Fig 7.16 [Twitter Screenshot] A Tweet by TOB (11.2022).



The Ocean Beneath @TheOcea... · 2d
Fluorescent Light ft. @blaisejess is out December 9th.

Presave link in our bio.

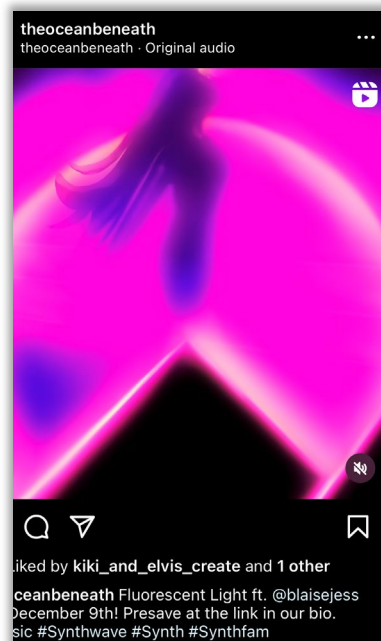
Beautiful artwork by @kiki_and_elvis_create

 The Ocean Beneath (@theoceanbeneath) • In...
instagram.com

RevivalSynth.com @RevivalSynth **Siguiendo**

Giving the unheard artists on the electro scene a platform to be heard. Site Sponsor @blondekingband FB Promo @Stereo_in_Solo View the site in desktop mode

Fig 7.17 [Twitter Screenshot] A Tweet by TOB, liked by RevivalSynth.com (11.2022).



theoceanbeneath
theoceanbeneath · Original audio

liked by kiki_and_elvis_create and 1 other

theoceanbeneath Fluorescent Light ft. @blaisejess
December 9th! Presave at the link in our bio.
sic #Synthwave #Synth #Synthfam

Fig 7.18 [Instagram Screenshot] An Instagram post by TOB (11.2022).

Upon the songs release, it was added to several synthwave and synth or electro music playlists within the community, including Forever Synth, RevivalSynth.com, SynthProf and Electro Tunes. Identification of these playlists as affiliated with synthwave was made clear by playlist's Twitter profiles (such as that by 'Forever Synth' in Fig 7.19).



Fig 7.19 [Twitter Screenshot] Twitter page of Forever Synth, a 'synthwave and synth-adjacent radioshow' (Screenshot taken 2022).

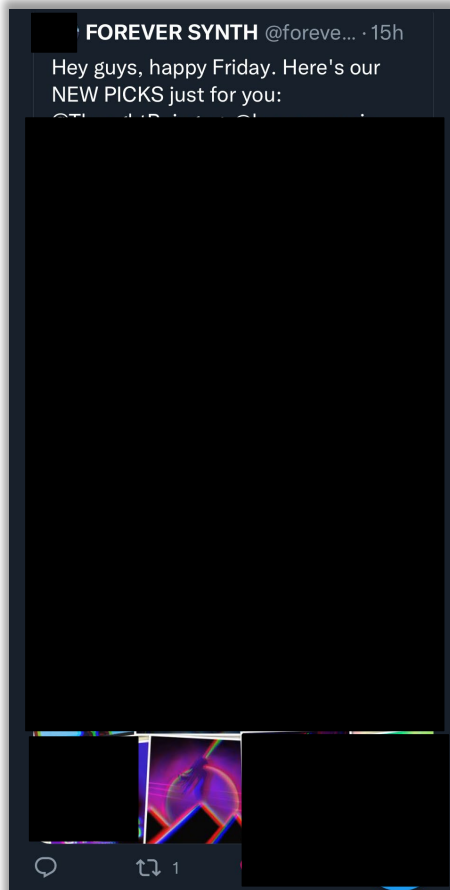


Fig 7.21 [Twitter Screenshot] Screenshot of Forever Synth's playlist selection (Twitter, 12.2022).

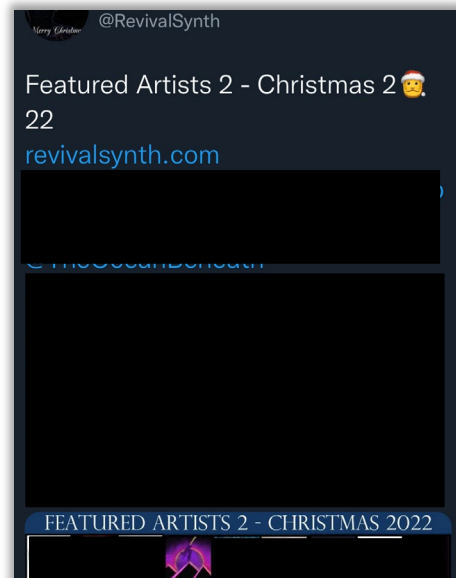


Fig 7.20 Revival Synth Twitter Post (12.2022).

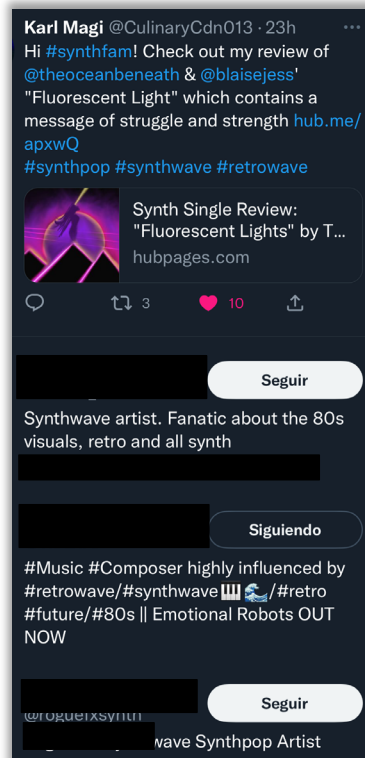


Fig 7.22 Karl Magi's posting of their review of 'Fluorescent Light', which is hashtagged as synthwave by Magi and 'liked' by several synthwave community members (12.2022).

Of playlists that 'Fluorescent Light' was added to, I noticed artists I had interviewed on some of these playlists (e.g. Bunny X), which felt like validation of my recognition as a synthwave artist.

Reviews were also posted about 'Fluorescent Light', which were shared on Twitter and 'liked' by members of the synthwave community. The identification of these individuals as community members was clear from user bios which included the word 'synthwave' or 'retrowave' or 'synthwave artist' (e.g. shown above in Fig 7.22). Reviews of 'Fluorescent Light' (2022)⁸¹ were hashtagged by reviewers as #synthwave, and reviewer content reflective of subcultural capital of synthwave. Some reviews described the song in reference to the 1980s, some reaffirmed the song's bio (requoting the phrase 'synthwave nostalgia'), and some described musical components such as the song's use of synths.

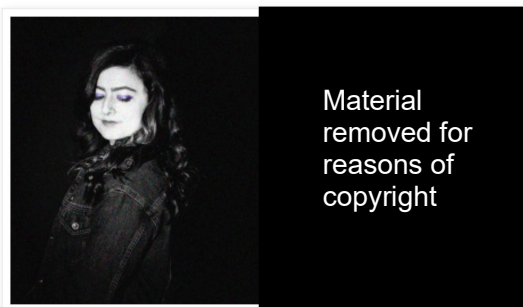
"Fluorescent Light" was co-written and produced by The Ocean Beneath and Jessica Blaise Ward, and mastered by Stephen Kerrison. The beautiful artwork was designed by kiki_and_elvis_create. About the song, Burnside says its "*a synthwave nostalgia trip touching on our courage, inner strength and*

Fig 7.25 Review of 'Fluorescent Light' by Eclectic Music Lover (12.2022).

The Ocean Beneath and Jessica Blaise Ward's *Fluorescent Light* contains a message of struggle and strength. Distantly drifting synth with a sharp edge flows with an airy rush to open the song. Jessica Blaise Ward's tremulous, powerful voice carries an anthemic melody as drums throb

Fig 7.24 'Fluorescent Light' (2022) Review by Karl Magi (12.2022).

December 09, 2022
The Ocean Beneath: Fluorescent Light (ft. Jessica Blaise Ward)



Leeds one-man synth band The Ocean Beneath has teamed up with singer Jessica Blaise Ward for a trip down memory on his the *Fluorescent Light* single. It is as if the '80s never ended, with

Fig 7.23 'Fluorescent Light' review by Here Comes the Flood (12.2022).

⁸¹ Review by eclectic music lover available from: <<https://eclecticmusiclover.com/2022/12/10/the-ocean-beneath-ft-jessica-blaise-ward-single-review-fluorescent-light/>>.

Review by Here Comes the Flood available here: <<https://www.herecomestheflood.com/2022/12/the-ocean-beneath-fluorescent-light-ft.html>>.

Review by Karl Magi available here: <<https://discover.hubpages.com/entertainment/Synth-Single-Review-Fluorescent-Lights-by-The-Ocean-Beneath-feat-Jessica-Blaise-Ward>>.

It was interesting (though unsurprising), to see some hashtags for ‘Fluorescent Light’ as ‘synthpop’, such as that of SynthProf’s playlist and Eclectic Music Lover’s review. This term is often conflated with synthwave within the online community, owed to the two styles’ focus on the synth for instrumentation and timbre, as well as synthpop being a prominent style of the 1980s (a decade which the community privileges).



Fig 7.26 [Twitter Screenshot] Electric Music Lover’s playlist description including ‘synthpop’ (12.2022).

SynthProfRemix

Two hours of the best in electronic music. Synthpop, electronica, EDM, dark wave, EBM, elctropop, indie, &

Fig 7.27 SynthProf’s playlist description including ‘synthpop’ (screenshot taken 12.2022).

My experience working with TOB was extremely positive, and shortly after the release of ‘Fluorescent Light’ (2022), TOB and I discussed the possibility of a second collaboration. This was not the first time I had toplined for a producer on a synthwave-style project, having previously worked on a synthwave project known as *Superterranea* (2020).

7.2.2 Superterranea and *The Great Silence* EP (2020)

Prior to working with The Ocean Beneath in 2022, I also worked on a synthwave project known as *Superterranea*, which began in 2019. The initial Reddit post no longer exists, but this is where the project founder of *Superterranea*, who I will refer to as BD, communicated his need for a topliner for the project. This was a work-for-hire project, and once accepted onto the project, it was agreed I would be compensated an up-front fee for my writing and performances of the toplines on the *Superterranea* EP (2020). I was later awarded 3% publishing royalties per song I featured on, as a token by BD (this was never specified initially and volunteered by BD upon the release of the EP). As a work-for-hire, The *Superterranea* project was unlike my work on ‘Fluorescent Light’ (2022) with The Ocean Beneath, which was a voluntary collaboration with no upfront monetary fee.

BD’s intentions for the EP were a ‘a cinematic, rock and synth-based soundscape’, and at the time of writing, he was ‘inspired by the M83 / Susanne Sundfor work on the Oblivion soundtrack’ (Brook Downton, 2023). Despite being a singer himself, BD decided to ‘find a vocalist to bring a whole different angle to the song writing process’ (Brook Downton, 2023). On reflection of our time working together, Brook described to me in interview how he

had expected a fairly ‘transactional interaction’ but noticed quickly how I ‘brought a professional and focused energy to the production process’ (Brook Downton, 2023). As a result, ‘This kept [him] writing, and thinking about new orchestration and arrangements that would allow for the vocals to emerge and lead’. He concluded how my ‘vocal ideas very quickly helped to finalize the songs’ (Brook Downton, 2023). My role as a topliner is correctly acknowledged and valued here, unlike the case with Primo the Alien described in Section 7.1 (who was initially wrongly credited as a topliner, when she had in fact written the whole song).

The EP was marketed towards synthwave, despite BD’s acknowledgement that he didn’t think ‘*Superterranea* [sat] squarely in [that] scene’. He also described how he found synthwave ‘a bit by accident as [he] didn’t realize synthwave was really a thing until [he] was about to release it [the *Superterranea* EP]’ (Brook Downton, 2023). He had come across synthwave mainly through movie soundtracks, and when noting how ‘*Superterranea* [the EP] was headed in a sci-fi direction’, started ‘seeking out the genre more directly to think about how it could be marketed to an audience’ (Brook Downton, 2023). To do this, BD engaged with synthwave subreddits, and submitted the *Superterranea* EP to various playlists within the community. He also submitted singles from the *Superterranea* EP to The Synthwave Charts and promoted the singles through his socials on Twitter and Instagram (Fig 7.28 and 7.29). I supported with this (see below Fig 7.30, 7.31, 7.33).

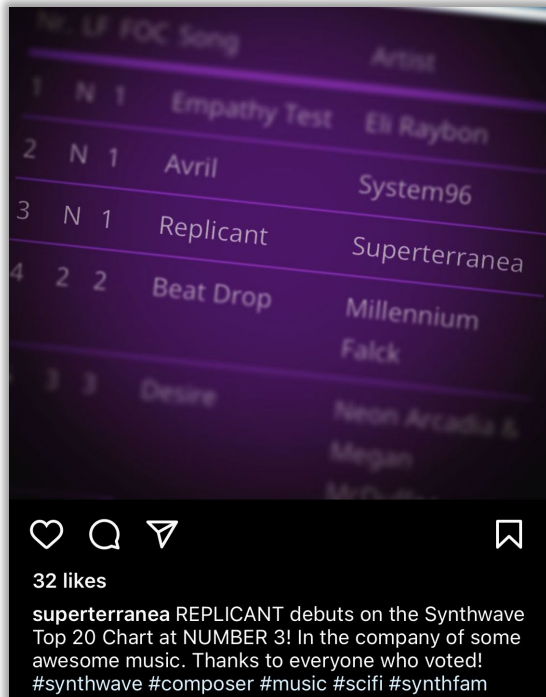


Fig 7.28 (originally Fig.4.23) [Instagram Screenshot] 'Replicant' (2019) achieving number 3 in The Synthwave Charts (Instagram, *Superterranea*, 14.04.2019).

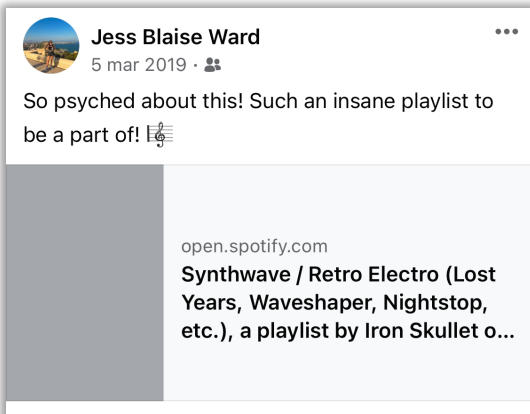


Fig 7.30 Author promoting 'Replicant' (2019) on Iron Skullet's 'Synthwave / Retro Electro' Playlist (Facebook, 03.2019).

We did it. Single #3: "WORLDS WITHOUT" - RELEASED TODAY! Featuring a time-bending monologue from the LEGEND that is @_mike_mccartney_ and with Jess Blaise Ward on vocals - this track HUUUUUGE. Our biggest yet. Thanks to @jeremypagemusic and @jashuamac for pushing it over the edge. Go and play it, stream it, share it. Link: https://open.spotify.com/track/2fKNceF3p8Sl12OdEuFxd?si=m_JEKG_oS2GvVJ45kVsp1g

#newmusic #releaseday #rock #cinematic #epic #music #sciencefiction #scifi #largehadroncollider #monologue #synthwave #synthfam #composer #bladerunner #golisten #spotify

Fig 7.29 [Facebook Screenshot] 'World's Without' (2019) promotion by BD (Facebook, *Superterranea*, 27.04.2019).

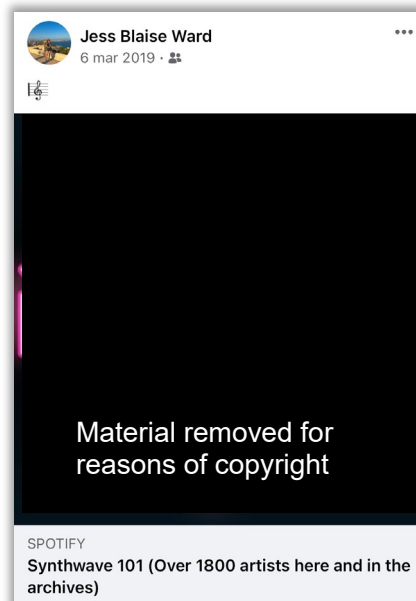


Fig 7.31 Author promoting 'Replicant' (2019) on 'Synthwave 101' Playlist (Facebook, 06.2019).



Fig 7.32 A review of single 'Replicant' (2019) from the *Superterranea* EP (03.2019).

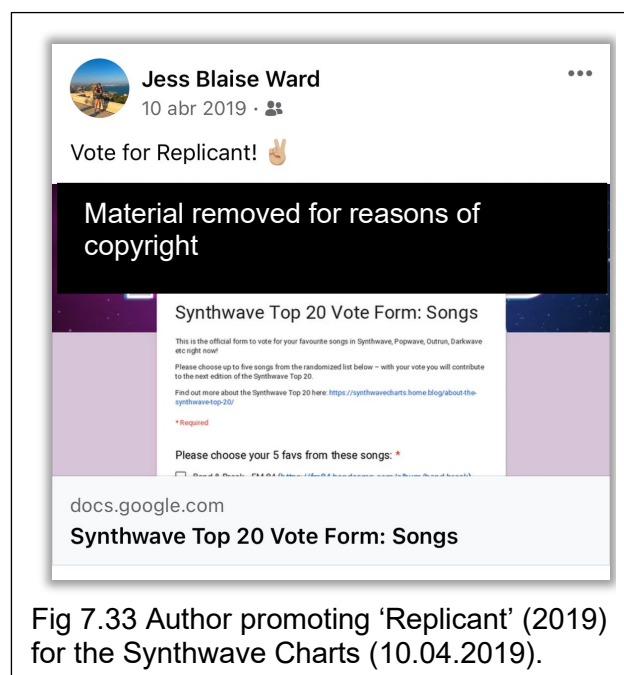


Fig 7.33 Author promoting 'Replicant' (2019) for the Synthwave Charts (10.04.2019).

As shown in figures 7.28 and 7.29, promotional content for *Superterranea* was hashtagged with '#synthwave' or '#synthfam'. One review made clear the song's ties to synthwave, describing it a 'synthwave hit'.⁸² BD noted how one playlist [Iron Skullet's infamous Synthwave Retro / Electro] 'shot *Superterranea* to 2,400 listeners per month for a couple of months, before the list changed hands and the new owner decided he didn't like it' (Brook Downton, 2023). My impression had always been that Iron Skullet alone curated the playlist, but BD's experience of this says otherwise.

On reflection, I am pleased with the work produced for the *Superterranea* EP (which is technically titled *The Great Silence*, but has always in practice been named eponymously i.e. the *Superterranea* EP). I can, however, see BD's viewpoint that the songs do not squarely fit the synthwave style, which is immediately noticeable upon listening. One main difference I have always noted is the live drums (not typical to synthwave), and the prevalence of guitar parts (which are not realised in a darksynth way – where this would be expected). Section 7.2 has outlined two instances of my work within the community as a topliner, of 'Fluorescent Light' (2022) and the *Superranea* EP (2020). My experiences for both of these projects was positive, and through autoethnographic data, gives further insight on how toplining in the synthwave community might typically operate. This section aims to extend the interview data in Section 7.1, which presents popwave artists.

⁸² Full review accessible from: <<https://www.anrfactory.com/superterranea-replicant-the-artist-who-created-an-aural-flood-with-her-synthwave-hit/>> [Accessed April 2023].

7.3 'Beyond Memory [Extended Version]' (2018) by NINA – Song Analysis

The song I analysed to represent popwave is 'Beyond Memory [Extended Version]' (2018) (abbreviated to 'Beyond Memory' hereafter), track 1 of NINA's 2018 album *Sleepwalking*. NINA has 3 albums to date (as of June 2023). Both *Sleepwalking* (2018) and *Synthian* (2020) credit a number of collaborators on their respective Bandcamp pages (a total of 6 songwriters or producers are credited to *Synthian* [2020]).⁸³ In interview with me, Nina Boldt confirmed that synthwave artist Sunglasses Kid (one of four producers on *Sleepwalking* [2018]) 'sent [her] the instrumental' for 'Beyond Memory' (2018), to which she added the topline. She described, 'I actually had written most of the lyrics before [hearing the instrumental]' (Boldt, 2019).



Fig 7.34 Album cover of *Sleepwalking* (2018) NINA.

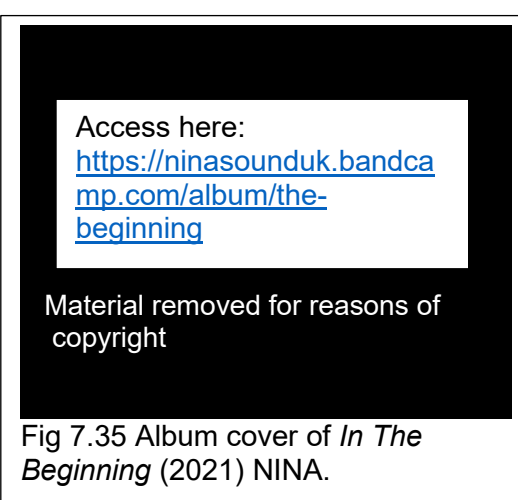


Fig 7.35 Album cover of *In The Beginning* (2021) NINA.

My decision to analyse one of NINA's tracks stemmed from her position as a high profile popwave artist. Specifically, I wanted to analyse the role of vocal performance within the popwave subgenre. NINA self-identifies as a synthwave artist (Ono, 2017) and is recognised by the synthwave community as a popwave artist in particular. Journalists outside of the synthwave community have also characterised NINA as belonging to the synthwave style, one report naming her a 'synthwave Queen' who 'redefine[s] nostalgia' with her 'sounds... redolent of the best of '[19]80s pop radio' (Moyer, 2018). NINA agreed these references to nostalgia and the 1980s within her music, speaking of '[...] that sweet nostalgia you feel when listening to a record from Depeche Mode or Duran Duran' (Moyer, 2018). She confirmed this allegiance to the 1980s in her interview with me: 'The [19]80s has a massive influence on my sound. I grew up in the [19]80s, so I feel very connected with that era, the fashion, the movies and overall aesthetics' (Boldt, 2019). She also described how her primary instruments are synths, including a Roland Gaia which she performs which onstage

⁸³ *Synthian* (2020): <<https://ninasounduk.bandcamp.com/album/synthian-album>> credits 6 writers in total for *Synthian* (2020) 'L. Fares, N. Boldt, J. Wide, R. Phillips, R. Smith, T. Wildling'.

(Boldt, 2019). Her Instagram frequently includes VHS clips of her as a child, or images of her parents in the 1980s with visible tropes of 1980s fashion. One of NINA's Instagram posts (dated August 2019) also cites key artist inspirations as Kim Wilde, Madonna, Kraftwerk and Tears for Fears. In many ways, NINA tangibly expresses her connection with the 1980s, supporting a brand identity with synthwave.

Before I present my analysis, I provide a graphic representation of 'Beyond Memory's (2018) structure and arrangement (Table 7.1), to establish the names of song components I will later refer to in analysis.

	Ethereal Intro [0-0'42]	Intro 2 [0'43-1'34]	Verse 1 [1'35-2'05]	Chorus 1 [2'06-2'47]	Intro Reprise [2'48-2'52]	Verse 2 [2'53-3'24]	Chorus 2 [3'25-3'54]	Verse 3 [3'55-4'05]	Chorus 3 [4'06-4'47]	Intro Reprise [4'48-4'52]	Verse 1 Reprise [4'53-5'00]
Main Vocals											
Backing Vocals 1											
Backing Vocals 2											
Synth 1											
Synth 2											
Synth 3				*drops out at 2.26							
Synth 4											
Synth 5											
Synth 6											
Synth 7											
Synth 8											
Bass Synth											
Cymbals											
Kick & Snare											
Toms											
Percussive sound FX											

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As shown by Table 7.1, the main nucleus of 'Beyond Memory' (2018) is built by the drums, bass synthesiser, synth 4, synth 6, synth 7, and vocals. Parts which appear less often are synth 1, synth 2, synth 3, and synth 5. Synth 7 and bass synth are indicative of the synthwave style, the latter performing an *ostinato* rhythm, with this part also doubled an octave higher (synth 7). Synth 4 is also indicative of the synthwave style, performing a chord 'pad' synth part. Backing vocals 1 refer to the following: verse 1's 'time has won' harmony, the chorus' lower octave vocal heard on lyric 'beyond memory', and a delayed vocal heard in verse 3. Backing vocals 2 refers to the inverted vocal pedal heard at 2'27 ('ah ah ah ah').

The song has an ABABAB (extended verse-chorus) structure, common-time time signature, tempo of 92bpm, and functions diatonically in the key of B minor. The overall arrangement of the song (especially the verse-chorus structure) is consistent with style traits of popwave. Specifically, vocal melody and vocal hooks lead the song throughout, with some areas where synth melodies lead (such as directly after chorus 1). Table 7.2 below details information about the synths in the song.

Table 7.2: Instrument Parts 'Beyond Memory [Extended Version]' (2018)	
Instrument & Timecode	Style Parameter/Music Production
Synth 1 0'10	Synth 1 is heard first in the ethereal introduction and later functions as a descending melody heard at the end of the chorus. Its melodic contouring is descending, with noticeable reverb and low-wet delay applied which makes the sound appear "thickened". It has a pitch range of d4-d5 (SP3).
Synth 2 0'52	Synth 2 is a 6-note repeated figure heard before verse 1. It has a 1/16 echo applied and a pitch range of f#4-b4.
Synth 3 2'06	Synth 3 is a high-pitched inverted pedal heard during the chorus. It has a fast attack (sounding "prompt") and slow release, making the notes appear to linger. It has a pitch range of f#4-c5.
Synth 4 1'29	Synth 4 is heard at 1'29 and in later choruses. It is a pad/chord synth with a medium attack (its whole notes appear slightly "late"). It has a pitch range of g3-f#4 (SP4).
Synth 5 2'37	Synth 5 is heard after chorus sections and before introduction reprises. Its melodic contour is ascending, and it has a fast attack and fast release making it appear staccato like. It has a pitch range of e3-b3.
Synth 6 0'43	Synth 6 is a rising <i>ostinato</i> synth b-d-e-f#. It has a LPF applied throughout introduction 2 which makes it appear distant at times. It has a pitch range of b2-f#3 (SP1a).
Synth 7 0'43	Synth 7 is the bass synth doubled an octave higher. It is a "bouncy" or "rubbery" sounding synth with fast attack (notes are 'prompt'). It has a pitch range of f#3-b3 (SP1a). It has an LFO which modulates the VCF, and paired with the VCA (ADSR), this gives the bass its "bouncy" "gated" style sound.
Synth 8 0'00	Synth 8 is a brassy style synth which is heard in the ethereal introduction only. It has long sustained notes which accompany synth 4 in the ethereal introduction. It has a pitch range of b3-d4.
Bass Synth 0'43	The bass synth part has a fast attack (notes are "prompt") and a pitch range of f#2-b2 (SP1a). It has an LFO which modulates the VCF, which paired with the VCA (ADSR), gives this bass synth its "bouncy" "gated" style sound.

To collate my analysis of 'Beyond Memory' (2018), I provide a discussion (below). My discussion is structured into three sections. The first two sections highlight key style parameters pertaining to melodic form and music production aesthetics, where the third demonstrates broader analysis of the song's arrangement (with specific reference to structure, rhythm and melody).

Three Key Style Parameters of 'Beyond Memory' (2018)

1) Melodic Form

The first key style parameter pertains to vocal melody, with reference to vocals within the wider arrangement, vocal phrasing, vocal hooks and lyrical narrative. Of vocals within the wider arrangement, one particular technique supports the privileging of 1980s aesthetics, which I refer to as *melodic unison* (where the vocal melody and synthesizer perform pitches and rhythm in unison, this is a component of SP3, outlined in Chapter 5). This technique was used frequently by songs of the late 1970s and 1980s in particular, due to the rise of the synthesizer as a new melodic instrument since the early 1970s (examples noted shortly). Equally, and as Chapter 5 outlined, the synthesizer was initially monophonic, which contributed to its common usage as a melodic instrument even when the advent of polyphony had been established. *Melodic unison* was heard when I reviewed a selection of songs from the 1980s, as well as artists from which NINA reports inspiration. Examples included Taylor Dayne's 'Tell it to my heart' (1987)⁸⁴, Kraftwerk's 'The Model' (1978)⁸⁵ as well as Madonna's 'Papa Don't Preach' (1986)⁸⁶ and Kim Wilde's 'Chequered Love' (1981).⁸⁷ Provided this, NINA's influence of 1980s female pop artists (as well as synthwave's privileging of 1980s aesthetics) is semiotically demonstrable through her use of *melodic unison*, heard partially on the verse lyric 'time has won' (1'53).

Musically, the verse vocal melody uses B natural minor with a short vocal range of a3-f#4. A subtle amount of pitch correction is audible. The verse vocal melody makes some use of syncopation, likely to counter the other instruments strong emphasis on the down beat. The phrase patterns for the verse are shown in Fig 7.36.

The image displays musical notation for the verse of 'Beyond Memory' (2018), organized into three staves. The key signature is B natural minor (two sharps: F# and C#). The notation includes lyrics and labels for specific phrase patterns.

Staff 1 (Measures 21-24):

- Measure 21: (Phrase 1) Take it
- Measure 22: (Phrase 1 variation) I sur- ren - der
- Measure 23: (Phrase 2) The at-ta - ck
- Measure 24: (Phrase 2) The at-ta - ck

Staff 2 (Measures 25-29):

- Measure 25: (Phrase 3) Nev - er - mind the kil - ling dazed and numb
- Measure 26: (Phrase 4) Nev - er - mind the kil - ling dazed and numb
- Measure 27: (Phrase 5) stripped to the core
- Measure 28: (Phrase 6) our mo - ment was sto - len
- Measure 29: (Phrase 7) Time has

Staff 3 (Measures 30-33):

- Measure 30: (Phrase 5 variation) won
- Measure 31: (Phrase 5 variation) wound - ed so - uls
- Measure 32: (Phrase 6) Our mo - ment was sto - len
- Measure 33: (Phrase 6) Our mo - ment was sto - len

⁸⁴ Tell it to my heart is accessible from: <<https://www.youtube.com/watch?v=Ud6sU3AcIT4>> (Taylordayne, 2009). Melodic unison at 0'50.

⁸⁵ The Model is accessible from: <<https://www.youtube.com/watch?v=KFq2pU21cNU>> (Scatmanjohn3001, 2009). Melodic unison at 0'24.

⁸⁶ Papa don't preach is accessible from: <<https://www.youtube.com/watch?v=G333Is7VPOg>> (Madonna, 2011). Melodic unison at 2'11.

⁸⁷ Chequered Love is accessible from: <<https://www.youtube.com/watch?v=UNjFm7CoE84>> (Irma0815007, 2010). Melodic unison 0'16.

Fig 7.36 Vocal phrases in verse 1 of 'Beyond Memory' (2018). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

There are a high number of vocal phrases in the first verse, with little direct repetition from phrase to phrase. The only phrases which do repeat are lyrics which repeat, heard at the end of the first verse: 'time has won' and 'our moment was stolen'. These two vocal phrases are contrasting (hear at 1'53-2'05) (see Fig 7.37).

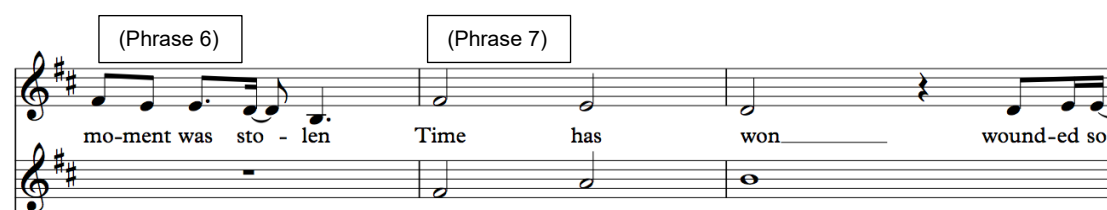


Fig 7.37 The only repeated phrases in verse 1. Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

The verse vocal phrases seldom rhyme, likely due to their constant variations (high number of different vocal phrases) resulting in an inconsistent number of syllables to facilitate rhyming. Contrastingly, the chorus melody uses much more vocal repetition than the verse, showing a tradition for creating chorus vocal hooks. The chorus vocal melody also incorporates more syncopation than the verse (again to offset the instrumentations downbeat and emphasise the vocal hook) and ascends in range to b3-c#5. The section alternates two main vocal phrases, the first of which is partially doubled an octave below (f#3-c#4, heard on lyric 'beyond memory' at 2'07), and the second which begins by repeating f4 three times (heard on lyric 'only shadows'). An arch shape melody is formed through the combination of these vocal phrases, the first a scalar ascent from f#4 to c#5, and the second a descendent contour from f#4 to b3 (see Fig 7.38).

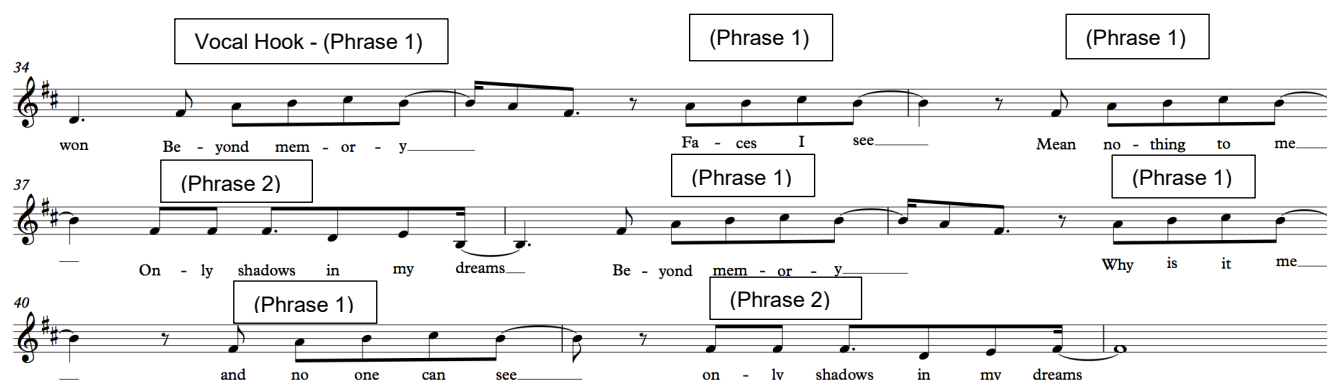


Fig 7.38 Vocal phrases sung by the main vocal in chorus 1 of 'Beyond Memory' (2018). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

The use of repetition by the vocal phrasing in the chorus shows NINA's awareness for

creating strong vocal 'hooks' (Burns, 1987, p.1). As shown by Fig 7.38, the chorus vocal hook 'beyond memory' is a melodic phrase repeated continuously throughout the section (named Phrase 1). NINA's hook is also emphasised by an extra backing vocal, which performs the hook an octave below. Rhyming is much more present in the chorus, owed to the repeated phrases (namely phrase 1, the hook) which facilitate a more consistent number of syllables. This repetition contributes to a more memorable vocal part, as per vocal hooks.

During my interview with NINA, I asked specifically how the vocal melody for the song was written. Her comments suggested that she wrote the vocals by ear, using the instrumental that Sunglasses Kid (one of the song's producers) provided her. She also alluded to the 'topline' having been a collaborate effort between herself, artist LAU and another songwriter, Luke Simpkins (who is not credited to the album):

'We were all in the studio together singing lots of ideas at first. We would record lots of takes, and possible harmonies and then pick the best ideas and make them fit to the track. We usually start with the chorus and work on the rest of the arrangement afterwards' (Boldt, 2019).

Her comments suggest that the chorus vocal hook was written first, and that the creative process of 'Beyond Memory' (2018) was collaborative.

Lyrically, 'Beyond Memory' (2018) supports synthwave ideas of nostalgia thematically through its repeated reference to time and memories. The song is written in first person, and the verses depict an unspecified fight that 'wounded souls' have surrendered to, against 'fire' and the enemy of 'time'. The chorus extends this idea to NINA's 'memory' and 'dreams' where memories shows 'faces' of the past. Love acts as a secondary theme to the song with the repeated 'our moment was stolen' lyric. When I asked NINA what had inspired her to write Beyond Memory (2018), she responded: 'Beyond Memory is about broken relationships and how after years of being together, you suddenly don't recognize the person you once fell in love with' (Boldt, 2019). Based on these comments, it would appear that love was actually the primary theme, with the enemy of time actually referring to changed people in a relationship.

2) Music Production Aesthetics

Vocal effects were prominent throughout the song, likely used to decorate and emphasise the vocal arrangement – a central component of popwave. Whilst it is important to highlight that music production effects such as reverb, echo and delay are common to many styles of popular music, it is what their uses in 'Beyond Memory' (2018) suggest semiotically which makes them significant as style parameters to popwave.

We hear vocals immediately from 0'00, as part of the 'ethereal introduction'. At this point, the vocals have a large room setting reverb, making the listener feel as though in a large space. The reverb also has a low frequency boost effect, making the vocals appear to fill the mix space or dominate the stereo field. Where the main introduction (0'43) emphasises the downbeat prominently with *ostinati* synth parts (heard on the bass synth [SP1a] and synth 6 [SP2a]), the ethereal introduction section is entirely contrasting, lacking pulse or downbeat rhythms altogether. This is because the reverb applied to the vocal obscures the tempo and creates a feeling of free metre which merges or binds the main vocal and synth 4 sonically. This combination consequently obscures the rhythmic value of the vocals, which presents a distant and ghost-like vocal character. This manipulation of acoustic spacing makes the vocals and synth 4 appear to swell, due to the combination of their long duration notes and the reverse reverb effect on the vocal in particular.

Vocals in the ethereal introduction function more like backing vocals, producing long sustained 'ahh' notes. The only distinct melodic part heard is performed by synth 1, a short two-phrase descending figure which is heard throughout the section twice. Harmonically, a synth pad (synth 4) is heard throughout, accompanied by synth 8, also playing long sustained notes. The instrumental nature of this section makes it function more like soundtrack music, where musical and music production components (here reverb) support an on-screen narrative or characters' emotional states. This idea is in keeping with synthwave, a style which is affiliated strongly with the movie *Drive* (2011) and its OST (original soundtrack) (discussed in Chapter 4).

I noticed that the ethereal introduction of 'Beyond Memory' (2018) bore resemblance to songs from the *Drive* (2011) OST, in particular: 'Rubber Head'⁸⁸ and 'I Drive'.⁸⁹ These songs too, had long held synth pad parts and an obscured sense of pulse. It is due to this that I argue 'Beyond Memory's' (2018) ethereal introduction is emulative of (non-diegetic) soundtrack music. However, NINA's addition of melodic elements to 'Beyond Memory's' (2018) ethereal introduction (see synth 1) show her taking into account the pop in popwave. I argue also, that in mimicking musical-structural elements of the *Drive* (2011) OST, NINA signals key traditions and aesthetics of synthwave. When I interviewed Nina, she cited the *Drive* (2011) OST as a source of her inspiration when beginning to engage with synthwave-styled music: 'I became aware of the synthwave scene after watching the movie *Drive* (2011). I immediately felt super inspired listening to the soundtrack, so I checked out some of the bands and fell right into it' (Boldt, 2019). Song's 'Rubber Head' (2011) and 'I Drive' (2011) not only show musical-structural elements of 'Beyond Memory' (2018), but also

⁸⁸ 'Rubber Head' is available from: <<https://www.youtube.com/watch?v=64kYGVokbxo>> (Unreleased MovieSoundtrack, 2019).

⁸⁹ 'I Drive' is available from: <<https://www.youtube.com/watch?v=tQ-4SQWCoiY>> (Bnk57, 2018).

possess the same swell described of the ethereal introduction due to their instrument's similar reverb treatment and similar LFO usage. Hence, the reverb and LFOs used in 'Beyond Memory's (2018) ethereal introduction, combined with musical-structural elements, signal key soundtrack music within the synthwave discourse (*Drive* [2011]).

Vocals, a central component of popwave, are emphasised in the arrangement by use of echo (a type of delay) effects. The use of echo on the chorus vocal phrases appears to thicken its holistic sound (hear at 2'07), with a reverb applied which boosts high end frequencies. This emphasises the higher pitches sung by Nina Boldt. This high-frequency boosted reverb becomes apparent when listening to the lower octave part of lyric 'beyond memory' (labelled phrase 1 vocal hook in Fig 7.38), which is much quieter in the mix and appears less reverberant.

Echo is heard throughout 'Beyond Memory' (2018), emphasising various vocal parts. Firstly, the chorus lyric 'to me' has a $\frac{1}{4}$ time echo, making the lyrics 'to me' essentially heard twice (2'13), once in the original vocal signal (2'13) and secondly as a delayed signal (2'14). This is demonstrative of the interesting rhythmic effects that delay can create, yielding in particular a rhythmic multiplication effect (where "ghost" replications of the original signal combine with the original signal to multiply heard rhythmic beats). Another example of echo is heard at 3'55 (verse 3), where a $\frac{1}{2}$ time echo is applied. This again allows the lyrical phrases to be heard twice. Fig 7.39 demonstrates. The "ghost" replications of the original signal have a telephone filter EQ effect applied, making them stand out sonically as well as rhythmically.

Main Vocal: Paint me	with your colours	and your love	never mind the killing
Echo:	(Paint me)	(with your colours)	(and your love)

Fig 7.39 Delay heard in verse three of 'Beyond Memory' (2018).

Whilst music production effects such as echo are common across multiple areas of popular music, I argue that their uses in 'Beyond Memory' (2018) are prominent, functioning to emphasise the vocal arrangement which is a key component of the popwave style. Given the frequency with which female synthwave artists perform toplines (as evidenced by my interviewees), an increased amount of music production effects on the vocals are unsurprising, since (in collaborative settings, at least) these are often the only parts women write, or have access to input on.

3) Song Arrangement (Structure, Rhythm & Melody)

My analysis demonstrated nuances of popwave-style arrangements, which combines pop structure verse-chorus form as well as incorporating elements of EDM and other key influences of synthwave (soundtrack music). This is notable after the ‘ethereal introduction’, which as outlined in my analysis, is indicative of (non-diegetic) soundtrack music. Once past the ethereal introduction, ‘Beyond Memory’ (2018) has larger sections of instrumental music in between sung verses and choruses which wouldn’t be considered traditional of commercial pop music. These instrumental sections instead identify more with EDM (discussed of Techno by Rietveld, 2018) or game and film soundtrack music.

An example of this is heard at the ‘introduction 2’ section (0’43) which immediately follows the ‘ethereal introduction’ (0’00). In stark contrast to the ‘ethereal introduction’, a host of new melodic parts are heard at the introduction (0’43), including a bass synthesiser (SP1a), synth 7 (the bass synthesiser doubled at octave) and synth 6 (SP2a). The rhythmic drive is emphasised by the downbeat, with a prominence of 16th rhythms emphasised by all heard melodic parts. There is an emphasis on the tonic note, which all melodies and bassline begin on and repeat through *ostinati*. Verse 1 begins at 1’33, collectively making the ‘ethereal introduction’ and ‘introduction 2’ over a minute and a half in length. The instrumental nature and length of these sections reflect key influences to synthwave, including EDM, game music, and film music soundtracks. In particular, the early synthwave subgenre outrun set the precedent for instrumentality within synthwave. As outlined in Chapter 4, the outrun subgenre was named after the 1980s arcade game of the same name.



Fig 7.40 Parts synth 6, synth 7 and bass synth heard in the Introduction section (0’43) of ‘Beyond Memory’ (2018). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

Synth 6 is heard at ‘introduction 2’, which is affected with a LPF to vary its tone throughout. The only section in which synth 6 (SP2a) does not appear is the ‘ethereal introduction’. Synth 6’s filter is most noticeable at 2’27, where it appears to drop out, but is in fact just less apparent in the mix due to LPF EQ effects. The use of LPFs to vary repeated *ostinati* parts was also found in Chapter 5, of ‘Back to You’ (2018) with synth 1.

Another example of ‘Beyond Memory’ (2018) identifying with EDM rather than pop-styled arrangements is the use of shared lead melody parts (Solberg and Dibben, 2019). Whilst the vocal is the main lead, some instrumental sections have lead melodies on synths.

An example can be heard after chorus 1, where synths 1 and 5 lead a short section before an introduction reprise is heard. These synths are panned off-centre left. From a general mix point of view, the stereo field is densely packed with different synth parts, and as such, some are affected with stereo imaging effects (e.g. synth 4) to support a balanced stereo field where all synths can be distinguished via tactical panning.

As is typical of synthwave, the drums are programmed (SP5), as opposed to acoustic drums recorded live through microphones. They also have sound effects used as part of their timbre, and at times, sound effects in place of drum hits. For example, a sound FX at 2'17 and 2'26 take the place of what might otherwise have been a crash cymbal, with sounds of tape saturation and white noise. Similarly, tape saturation and white noise are heard again at 4'05, incorporated as part of a tom fill.

'Beyond Memory [Extended Version]' (2018) Analysis Summary

In summary, 'Beyond Memory' (2018) emphasises vocal parts through music arrangement and music production choices – establishing the vocal as a key component of popwave. Music production choices which emphasise vocal parts in particular included reverse reverb, echo and delay. Music arrangement choices which emphasise vocal parts include *melodic unison* (SP11). Vocal arrangements like this differentiate popwave from other synthwave subgenres (such as outrun and darksynth), as well as reflecting issues of gender representation within the synthwave community. In other words, vocal arrangements in some ways, compensate for women's lack of agency over the instrumental.

As demonstrated by 'Beyond Memory' (2018), one of the ways in which popwave-styled songs maintain their synthwave identity (as opposed to being considered purely pop music) is through incorporating broader components of synthwave, namely EDM, film music soundtrack and game music influences. A prominent example of film music soundtrack influence, for example, is the ethereal section heard as the introduction of 'Beyond Memory' (2018). Also, key synthwave style parameters heard throughout the song include the *ostinati* bassline (SP1a), four-to-the-floor drums (SP5), lead melodies on synth (SP3), pad synths (SP4) and melodies doubled at octave. Nina Boldt spoke in interview about which synths were used on 'Beyond Memory' (2018), naming the Oberheim OB-X (unconfirmed in interview, but likely used for the pad synths), the Korg PolySix (likely used for the bassline – since this is an extremely popular choice for synthwave basslines) and a Roland Gaia (Lai, 2018). The combination of synthesizers such as these with synthwave musical parameters is how the style is able to semiotically signal the 1980s and support the community's nostalgia narrative. This idea is supported by Nina Boldt, who described in interview how all of the producers of her album *Sleepwalking* (2018) 'have that strong [19]80s synth influence' (Lai,

2018). With this, 'Beyond Memory' (2018) is in keeping with synthwave through privileging of 1980s aesthetics.

7.4 Composition Commentary 'Killing Dreams' (2019)

To reconstruct popwave style parameters found in 'Beyond Memory' (2018), I developed a composition named 'Killing Dreams' (2019). This composition was not initially intended for release, and instead an experiment of popwave style parameters. However, 'Killing Dreams' (2019) was later released when produced by my producer, Jan Hajsen.

I began the process by selecting the key of Dm, a time signature of 4/4 and a tempo of 80bpm. These choices reflected style parameters from my analysis of 'Beyond Memory' (2018). I noticed in the early stages of the composition how salient tempo, rhythm and metre were, especially of using faster rhythms (such as 8ths) to offset a slow tempo and present a faster rhythmic 'surface rate' (Tagg, 2012, p.288). This idea can be heard in 'Beyond Memory' (2018) (at 0'43) where *ostinati* 16ths (heard in bass synth, synth 6 and synth 7), offset a slower bpm of 92. Though the tempo for 'Killing Dreams' (2019) had originally been set to 80bpm, the interaction of rhythm and meter parameters prompted me to change it twice. This is because within my arrangement, the surface rate of some rhythms appeared uncharacteristically fast at certain tempi (such as 16ths with 80bpm). To combat this, I changed the tempo of 'Killing Dreams' (2019) to 90bpm, and 8th *ostinati* rhythms were used instead of 'Beyond Memory's' (2018) use of 16th *ostinati*. This was a pacing choice related to my song's concept (discussed shortly).

In using *ostinati* in this way, I aimed to maintain core parameters of synthwave. Thus, I designed *ostinati* parts with downbeat 1/8 notes. As per my findings from 'Beyond Memory' (2018), I aimed to emphasise the tonic in these parts, in my case the key of D minor. 'Killing Dreams's' (2019) lead introduction synth (SP3a – here using the 'Mini Saw Lead' on Logic 9s EXS24) and bassline (SP1a – here using 'Chirp Synth Bass' on Logic 9s ES2) demonstrate my usage of these traits, performing downbeat 1/8 notes as *ostinati* throughout the introduction (in the lead introduction synth) and whole song (in the bassline) respectively (see Fig 7.41 and Fig 7.42 below). Despite having Arturia 9, I chose not to use a Korg Polysix (software plug-in or hardware synthesizer), to test the limits of this parameter. As such, I used a Logic 9 synth and edited the ADSR envelope (with a fast attack, fast decay, medium-fast sustain, fast release) to emulate some of the traits of a Polysix style synthwave bassline (outlined in Chapter 5). My lead introduction synth technically uses a seventh chord, Bbmaj7, but this is heard as an arp (SP2b) and not as a 4-note simultaneous chord.



Fig 7.41 Lead Introduction Synth for 'Killing Dreams' (2019).
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Fig 7.42 Bassline figure for 'Killing Dreams' (2019).
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Some keywords from 'Beyond Memory' (2018) were taken as inspiration for the lyrics of 'Killing Dreams' (2019), e.g. 'dreams' (present in the chorus of 'Beyond Memory' [2018]). I particularly liked NINA's lyrics about sleep and dreams and wanted to create a song which might be described as hypnotic, haunting, or akin to a nightmare dream (such ideas were the songs concept). I felt this was more cinematic and would support synthwave's soundtrack elements. My lead introduction synth melody was used to semiotically signal a hypnotic nightmare dream (its voicing chosen for this reason), with a rising arpeggiated melody which incorporated a large intervallic jump of a major seventh at the end of the phrase. This use of broken chords or arpeggiation to form a melody reflected style parameters I analysed in 'Beyond Memory' (2018) (0'43). I doubled the lead introduction figure at octave, to maintain other characteristics of synthwave where melodic parts are multiplied with octaves (as discussed in Chapter 5 of SP4).

Other core characteristics of synthwave (and in turn those influenced by EDM) were maintained through arrangement choices, such as 'Killing Dreams's' (2019) introduction section, which is 32 seconds in length, and emphasises the lead introduction figure as the lead melody before the main vocals arrive at verse 1 (heard at 0'33). As with 'Beyond Memory' (2018), 'Killing Dreams's' (2019) introduction was designed as longer than would be traditional of a pop song, and instead more reflective of EDM⁹⁰ or film music soundtracks. Equally, I arranged 'Killing Dreams' (2019) to have distinct instrumental sections with lead synth melodies, to reflect my findings in 'Beyond Memory' (2018) (hear at 2'26). An example of this can be heard at 2'45 (hear 2'45-3'05). Drum patterns I chose for 'Killing Dreams' (2019) mimicked those used in 'Beyond Memory' (2018), adopting simple four-to-the-floor patterns (SP5). I chose a synth pad for the verses (SP4a hear at 0'32 – here 'Purity' on Logic 9s ES2) and a further synth pad for the chorus sections (SP4a hear at 1'14 – here 'Hover Craft' on Logic 9s ES2).

⁹⁰ E.g. The introduction to 'Hi Friend' (2019) by Deadmau8, which is 1 minute 36 seconds. Available from: https://www.youtube.com/watch?v=V9GRu_3hfpM.

Whilst I arranged a similar instrumental introduction for 'Killing Dreams' (2019) (32 seconds in length), this was shorter than 'Beyond Memory's' (2018) (1 minute 35 in length). However, this is because I chose not to create a distinct 'ethereal introduction' section as with 'Beyond Memory' (2018). I instead, mimicked the vocal 'ahhs' heard in 'Beyond Memory's' (2018) introduction to create a vocal figure for my own introduction. To emphasise these in the arrangement, I applied delay to these parts, to multiply their heard notes through combination of the original signal with the delay signal. Of the two 'ahhs' sung (one a static note and one a descending figure) the static note had a 50 percent wet delay setting and the descending figure a 100 percent wet delay setting. Use of delay reflected my analysis of 'Beyond Memory' (2018), where echo emphasised vocal parts (hear at 3'55).

When writing the chorus for 'Killing Dreams' (2019), I reviewed 'Beyond Memory's' (2018) chorus part, noticing how the main vocal was doubled at octave on lyric 'beyond memory'. This altered my approach when writing the vocal melody for 'Killing Dreams' (2019), since I required a melody that I could physically sing at two octaves (arguably a physical restraint) (Pearce and Wiggins [2002, p.2]). Through singing by ear, I eventually created a melody I liked, and the two vocal octaves can be heard on 'Killing Dreams's' (2019) chorus lyric 'so I'm dreaming of the night, that your words won't steal my light'. Following this, I aimed to design a strong vocal hook as with 'Beyond Memory's' (2018) chorus melody (2'06 'beyond memory, faces I see, mean nothing to me'). Since 'Beyond Memory' (2018) incorporated the title of the song as part of the vocal hook, I decided to do the same. It should be noted that 'Beyond Memory's' (2018) usage of a vocal hook reflects pop sensibilities more generally (where titles as hooks are common). However, what sets pop and popwave apart in this sense is that popwave *prioritises* hooks to be vocal (or synth), where pop might consider vocal or instrumental hooks freely. The reason that popwave prioritises vocal hooks is to emphasise the vocals and vocal arrangement, a core component of the subgenre.

My hook is heard as part of the chorus (1'23 'cause you're killing me, cause you're killing me, killing dreams'). This vocal hook had delay applied to it, including a large room reverb to mimic the reverb treatment of the vocals heard in 'Beyond Memory's' (2018) 'ethereal introduction'. It was my intention to use music production effects to emphasise the vocal parts (as had been the case with 'Beyond Memory' [2018]), and as such, verse vocals too, had delay applied to them, including an extra wet delay added to last words on some of the phrases, such as 'mind' (see Fig 7.43 below for 'Killing Dreams' vocal phrases scored). I also applied a small amount of pitch correction to my verse and chorus melodies, to mimic 'Beyond Memory'. Immediately after the chorus section, a short reprise of the introduction vocal ahh's are heard, also treated with delay. To further emphasise vocal parts, I added vocal harmonies to parts of the chorus, a choice which didn't reflect my findings from

'Beyond Memory' (2018), where vocal harmonies are not present in that section (they are however in 'Beyond Memory's [2018] verse). Some differences were clear in the vocal arrangements of 'Beyond Memory' (2018) and 'Killing Dreams' (2019), as ultimately the ways in which I emphasised the vocals were realised differently. Notable differences include 'Killing Dreams's (2019) lack of *melodic unison*, which was present in 'Beyond Memory's (2018) verse. Though I experimented with *melodic unison* (SP3), I felt it detracted from the vocal character in the verse and took away from the hypnotic nightmare dream concept (instead, call and response backing vocals were chosen, explained below). Within the chorus, *melodic unison* made the section feel cluttered, with this section having so many vocal harmonies and backing vocals.

My vocal phrasing choices were different to those of 'Beyond Memory' (2018) (though they do use a similar level of syncopation as 'Beyond Memory' [2018]). Where 'Beyond Memory's (2018) vocal phrasing was diverse, with a high number of different vocal phrases, my verse vocals utilised only two different phrases, as shown below in Fig 7.43. I incorporated some backing vocals, in a call and response fashion. I chose this in place of *melodic unison*, feeling that they better communicated my song concept of a hypnotic nightmare dream.

The musical score is presented in four systems, each with a Main Vocal line and a Backing Vocal (BV) line. The key signature is one flat (Bb) and the time signature is 4/4. The lyrics are written below the notes.

System 1: The Main Vocal line is labeled 'Phrase 1' and contains the lyrics 'Night- mare dreams are find - ing me'. The BV line contains the lyrics 'All fa - mil - iar All fam-il'.

System 2: The Main Vocal line is labeled 'Phrase 1' and contains the lyrics 'A-wa- ken Dark - ness in my sleep'. The BV line contains the lyrics 'iar All fa-mil - iar All fa-mil'.

System 3: The Main Vocal line is labeled 'Phrase 2' and contains the lyrics 'A con-scious is lost deep in-side my_ mind_'. The BV line contains the lyrics 'iar'.

System 4: The Main Vocal line is labeled 'Phrase 2' and contains the lyrics 'To com-pro- mise_ thoughts and con-trol whats_ mine_'. The BV line is empty.

Fig 7.43 Sung vocal phrases in verse 1 of 'Killing Dreams' (2019).
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My chorus phrases utilised a similar number of phrases to 'Beyond Memory' (2018) (which used two), using three (see Fig 7.44 below).

The image displays three staves of musical notation for the chorus of 'Killing Dreams' (2019). Each staff is labeled 'Main Vocal' on the left. The first staff starts at measure 16 and contains two phrases labeled 'Phrase 1' in boxes: 'So I'm dream-ing of the night' and 'Where your'. The second staff starts at measure 19 and contains one phrase labeled 'Phrase 2 – Vocal Hook' in a box: 'words won't steal my light Cause you're kill-ling me'. The third staff starts at measure 22 and contains two phrases labeled 'Phrase 2 – Vocal Hook' and 'Phrase 3 – Vocal Hook' in boxes: 'Cause you're kill ing me' and 'Kill-ing dreams'. The notation includes treble clefs, a key signature of one flat, and various note values and rests.

Fig 7.44 Sung vocal phrases in chorus 1 of 'Killing Dreams' (2019).
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In summary, my compositional process of 'Killing Dreams' (2019) found evidence of tempo, metre and rhythm as salient features when arranging the song. For popwave specifically, vocals were particularly considered within the song – being emphasised by parts sung at octave, backing vocals, vocal harmonies, vocal phrasing, music production effects, as well as ensuring melodic hooks were performed for vocal. Notable differences between 'Killing Dreams' (2019) and 'Beyond Memory' (2018) manifested due to 'Killing Dreams's' (2019) song concept. For example, in having rejected *melodic unison* (SP3), 'Killing Dreams' (2019) resultantly lacked some of the 1980s aesthetics heard in 'Beyond Memory' (2019). However, 'Killing Dreams' (2019) did incorporate a good deal of synthwave's style parameters, e.g. arps (SP2b), pads (SP4a), synth bass (SP1a), synth lead (SP3a), four-to-the-floor drums (SP5). Whilst my synth bassline did not use a Korg Polysix, it did choose a synthesizer voicing which imitated the VCA ADSR envelope of this synth. Holistically, I feel that my synthesizer voicings veered semiotically more towards my 'hypnotic nightmare dream' concept, and as such hindered identifying strongly with synthwave. Resultantly, I expect the community would reject 'Killing Dreams' (2018) as squarely a popwave song. When discussing with producer Jan Hajszen, who described it as 'clearly synthwave-influenced', we reflected on choices we had made with regards to music production. These included mix choices such as the gated snare effect, use of programmed drums, and an all-synthesizer

instrument profile. It is apparent that these components, along with key musical parameters pertaining to tempo, metre and rhythm are not enough to wholly achieve a community definition of synthwave.

This process revealed to me that my own creative intentions were in fact a barrier to meeting expectations of synthwave, as well as supporting that the online community clearly privilege certain style parameters over others. If being critical, to create a 100% synthwave song might be described as a little stifling within the context of a full compositional process. I believe this begins to explain some of the tensions within the community about what is and isn't considered synthwave, as well as why synthwave has splintered into so many subgenres since the 2010s.

Chapter 7 Conclusion

This chapter demonstrates how popwave is a space for women to negotiate both their skills and creative roles within the synthwave community. It evidences further the differing creative roles within the synthwave community, particularly how popwave artists are music performers and commonly, topliners. With this, popwave has created opportunities and a platform for women to negotiate and challenge often preconceived creative roles of women, with a good number of popwave artists identifying as both music producers and performers.

Style parameters of popwave are inherently linked to issues of gender representation. For popwave specifically, vocals were significant within the song – being emphasised by parts sung at octave, backing vocals, vocal harmonies, vocal phrasing, music production effects, as well as ensuring melodic hooks were performed for vocal. This reflects women's common role as topliners within the synthwave community, as well as traditionally gendered instrument roles (as outlined by Kearney, [2017]). I argue also that the significance of music production effects for vocal is a consequence of this. Additionally, women only being granted access to the parts that they directly created may be one reason why many female artists have taken to becoming their own music producers, to enable a level of agency in their creative work that was previously inaccessible.

When considering 1980s aesthetics of synthwave, it is evident that popwave artists utilise both personal and community understandings of 1980s nostalgia, implementing these ideas musically into their songs. As shown by NINA's 'Beyond Memory' (2018), key monikers of the 1980s are employed, such as *melodic unison* and music production mix techniques which emulate popular music of the 1980s. Equally, NINA cites specific musical influence from the 1980s (based on her own upbringing as a 1980s child) as well as musically referencing key synthwave subcultural capital such as the *Drive* (2011) soundtrack. This shows how she realises the privileging of 1980s aesthetics in her songs, through a negotiation of personal influence and synthwave subcultural capital. This ties in

with her artist identity and branding, which clearly showcases 1980s tropes of fashion, iconography and musical inspiration.

Popwave demonstrates a shift in the synthwave community, which prior to this particular subgenre, could be characterised as solely male-dominated. However, as explained by the artists interviewed as part of this chapter, popwave is increasingly changing the artist demographic of synthwave, with an increased number of female artists negotiating a path to challenge preconceived notions of female musician gender roles. With this, popwave has the potential to become a gateway for female artists to establish themselves across other synthwave subgenres.

Chapter 8: Live Synthwave Practices

This chapter observes and interrogates synthwave practices in a live setting. It centres around two live concert ethnographies which took place in November 2019 (of popwave artist The Midnight) and February 2020 (of darksynth artist Dance with the Dead) respectively. Through these concert ethnographies, ideas of ‘liveness’ (Auslander, 2022) and practices of performance are considered, exploring in particular how synthwave style parameters are manifested in a live setting. I consider also to what extent synthwave’s live music practices can be situated within the EDM tradition, a genre from which it has musical roots. Data from my virtual ethnography contextualises my discussion, reflecting community members’ viewpoints and experiences of synthwave artists’ live performances. The chapter is structured as follows: Firstly, I present a very brief contextual section about synthwave and EDM, discussing ‘liveness’ (Auslander, 2022) and practices of music performance (Butler, 2014, Attias et al, 2013, Mazierska et al, 2021). This is converged with virtual ethnographic data (8.1), which discusses some of the barriers to live touring experienced by synthwave artists. Secondly, I present a live concert ethnography of The Midnight (8.2). Thirdly, I present a live concert ethnography of Dance with the Dead (8.3). A summary draws together the findings of my live concert ethnographies with relevant parts of my virtual ethnography.

8.1 Synthwave, EDM and ‘Liveness’

As discussed in Chapter 4, synthwave has musical roots in EDM. When describing this, my interviewees often referred to EDM through different names, commonly using ‘electronic music’ (Mike Langlie, 2019), ‘electronic’ (Cram, 2018), or ‘electronic dance music’ (Miles Matrix, 2020). Some used the term house, a well-recognised genre of EDM, to describe synthwave as ‘derived from French House’ (Leenaerts, 2019), and the ‘French House scene’ (RS, 2019) [of the late 1990s and early 2000s]. Music Technology scholar Rietvald (2013) clarified some of the terminology around EDM, asserting how ‘dance music genres (such as techno, trance, house music, garage, drum ‘n’ bass, dubstep) shatter into a myriad of subgenres, known in the US under the umbrella term “electronica” and more widely understood as electronic dance music, [...] abbreviated by scholars and journalists as “EDM”’ (Rietvald, in Attias et al, 2013, p.2). Audiences, artists and industry recognise this term also, and my virtual ethnography confirmed many instances of this (with examples viewable in Figures of Section 8.3). A more recent definition by Mazierska et al (2021) clarified that ‘dance’ is now more commonly used, with ‘electronic’ fairly redundant given the ‘ubiquitous’ nature of synthesizers in ‘all genres of popular music’ (Mazierska et al, 2021,

p.12). Of EDM terminologies in general, Mazierska et al recognised the 'maturation' (or evolving) of the genre, arguing that the 'global availability of the earlier styles of EDM on the internet, the cultural digital mega-archive [and] the setting up of YouTube in 2005' has allowed 'new generations of EDM fans' (Mazierska et al, 2021, p.11). With this, Mazierska et al make clear the possibilities for EDMs 'maturation' or stylistic and cultural evolutions. An apt example of this would be the online synthwave community, who certainly recognise synthwave's musical roots and lineage in electronic dance music. For the purposes of my discussion, I use the term EDM as an abbreviation of interviewee definitions (i.e. electronic dance music), as well as to reflect terminology observed from my virtual ethnography of the online synthwave community.

EDM's origins can be traced back to the late 1960s with Jamaican Dub (Partridge, 2008), as well as 1970s German krautrock (such as Kraftwerk) (Reynolds, 2013, p.3). EDM continued to evolve throughout the 1970s and 1980s with DJ styles Chicago House and Detroit Techno (p.17), the former which he described as 'the culmination of an unwritten [...] history of black dance pop' (Reynolds, 2013, p.26). In my discussions of EDM, it is important to not misrepresent EDM as a genre created wholly or predominantly by white people. Whilst Reynolds acknowledged the impact to EDM of artists such as Kraftwerk, who, 'had a more enduring impact in Detroit, where the band's music plugged into the Europhile tastes of arty, middle class blacks' (Reynolds, 2013, p.4), he too makes clear the creative work undertaken by 'black youth from Detroit and Chicago' in reference to Techno and House (Reynolds, 2013, p.6).

Rietvald described typical musical features and modes of production for EDM. These include 'electronic' 'synthesized' (more commonly than acoustic) sounds, 'a distinctive dominance of the bass-line' and 'programmed four-to-the-floor disco beats' (Rietvald, in Attias et al, 2013, p.1-3). EDM developed 'in response to the musical preferences of the participants on the dancefloor' (Rietvald, in Attias et al, 2013, p.3) and practices of the DJ, or disk jockey (Rietvald, in Attias et al, 2013, p.6). Mazierska et al contended how EDM is 'consumed socially and in public places [...] entangled in electronic technology which changes more rapidly than traditional instruments and [...] the changing taste of the dancing crowds' (Mazierska, 2021, p.4). These sources recognise differing instrumentation and location practices of an EDM performance, i.e. that EDM does not centre around the rock band trio of drums, bass and guitar, nor does it primarily fall under the "gig" category. With roots in 'club culture' (Jori, in Mazierska, 2021, p.26) EDM has its own set of practices for performance. These practices come with their own issues of legitimacy and authenticity in conveying what Auslander has termed as 'liveness' (Auslander, 2022), for example Yu's comments about 'cheating' in a live performance (Yu, in Attias, 2013, p.154).

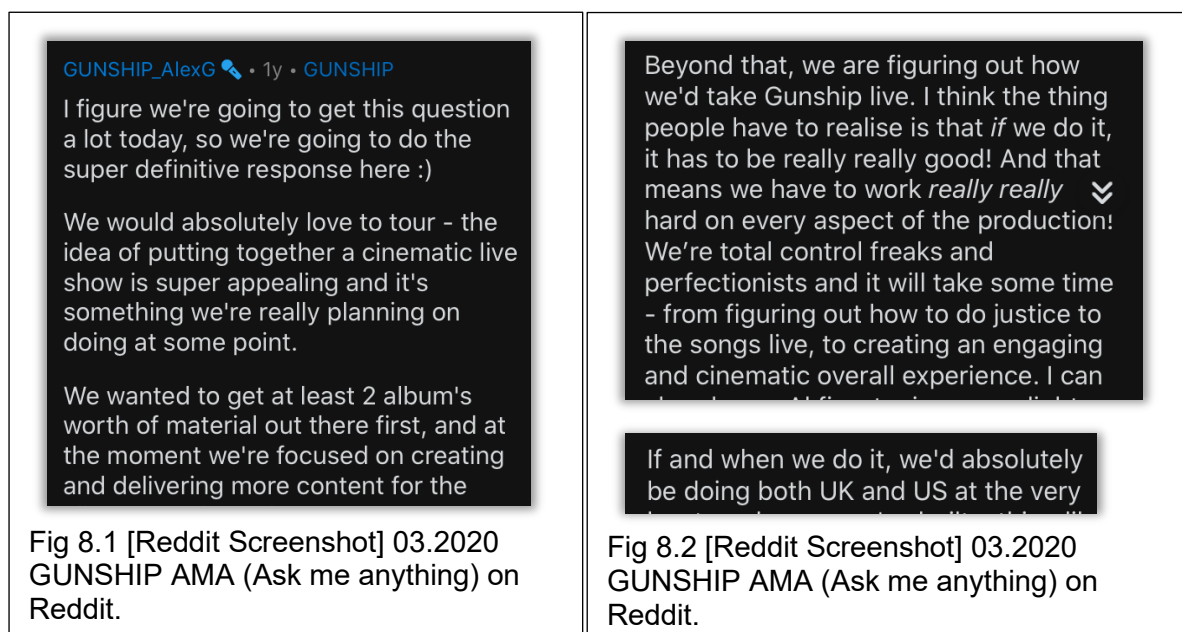
Historically, traditions of EDM performance require a number of skills associated with the role of the DJ, such as ‘mixer basics, beatmatching and EQing’ (Yu, in Attias et al, 2013). Possession of these skills within the context of EDM is referred to by Yu as ‘embodied “technocultural capital”’ (Yu, in Attias et al, 2013, p.153). Relevant to this capital is also the usage of hardware and software in an EDM performance, which Butler names as interfaces and suggests examples, such as: ‘analog turntables, DJ mixing boards, laptop computers, drum machines, synthesizers, and various kinds of MIDI controllers’ (Butler, 2014, p.70). The interaction by the performer with these interfaces is key for an EDM performance (whilst also presenting challenges for an audience), as Butler explained: ‘in an electronic dance music context [...] many of the musician’s interactions with interfaces may be invisible, and the unfamiliarity of the instrument renders their performance techniques gesturally opaque to most audience members’ (Butler, 2014, p.99). One such example includes the ‘problems associated with performing with laptops’ (Butler, 2014 p.95), which one of Butler’s interviewees described of a performer using Ableton Live. The interviewee criticised the laptop’s usage as being ‘very boring’, ‘just clicking the parts on [...] and from an audience point of view [the performer could be] checking their emails or playing Tetris’ (Butler, 2014 p.96). This makes clear some of the expectations of ‘liveness’ (Auslander, 2022) in contemporary contexts of EDM, as also described by Kneschke (in Mazierska, 2021): ‘As EDM has evolved, more attention has also been paid to the visual component of the live show. It has become less acceptable, at least for a live [set] as opposed to a DJ set, to simply play tracks through a computer and pantomime performance’ (Kneschke, in Mazierska, 2021, p.133). Kneschke’s discussion noted overall how ‘some electronic music acts lack of liveness’ (Auslander, 2022) is viewed as detrimental to audience engagement (Kneschke, in Mazierska, 2021, p.133).

One method used by performers to engage with audiences and convey gesture more clearly is through hardware: ‘Many performers today ensure they remain active onstage, at the very least tweaking song parameters or sections via controller knobs, sliders and buttons. Others use a conventional instrument, often a keyboard, to create a spectacle while signalling some level of music theory mastery’ (Kneschke, in Mazierska, 2021, p.133). Kneschke’s comments here suggest a level of using hardware superficially or gesturally only (as opposed to performing with the interface in a traditional manner) to convey ‘liveness’ (Auslander, 2022). Butler’s views are to some extent, sympathetic of these ideas, recognising how audiences’ expectations of a performer ‘involve a coupling of aural and visual signals through the medium of movement’ (Butler, 2014, p.66). Despite this fact, it would appear that there are right and wrong ways to convey ‘liveness’ (Auslander, 2022) when navigating issues of (perceived) authenticity (Moore, 2002), technological capital (Yu, in Attias et al, 2013, p.153), and style legitimacy of the EDM tradition.

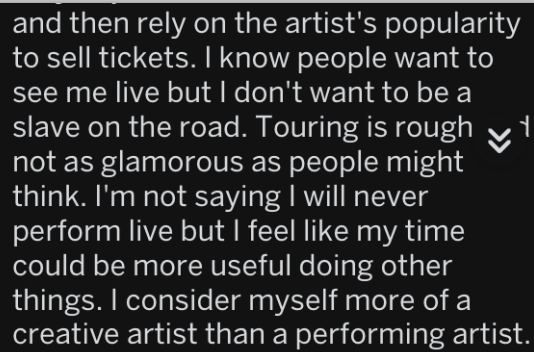
This section has revisited synthwave's ties to EDM (explored previously in Chapter 4, as well as other areas of the thesis), and discussed some of the necessary tenets and debates of live EDM performance practices. The discussion foregrounds the two concert ethnographies which appear shortly, providing context to consider to what extent synthwave's live music practices can be situated within the EDM tradition.

Before this, I provide a table to demonstrate synthwave artists who have been on tour and have performed live. Nine examples are shown, each with their accompanying tour poster, tour dates, and some contextual information about each artists' following through Spotify statistics. Figures which represent monthly followers and total number of albums for each artist were extracted in January 2023. I also describe each artist by synthwave subgenre, to demonstrate the over representation of darksynth artists who tour (the reasons for which are discussed shortly).

It is not coincidental that my Tour Table (Table 8.1 below) represents nine high-profile synthwave artists. Their ability to tour is a privilege, and likely a result of their success as an artist (demonstrable through streaming metrics, number of albums, support from record labels). This success reaps financial capital to be able to tour, which is not the case for all synthwave artists. There are exceptions to this rule, for example of artist GUNSHIP, who stated other reasons (besides financial viability) for not wanting to tour in their Reddit AMA (ask me anything) (see Fig 8.1).



These reasons include a perceived view of not having enough material to tour, as well as having specific ideals for how the live performance would be carried out. Another artist who discussed touring on a Reddit AMA is Trevor Something, who described not wanting to tour due to considering themselves more a 'creative artist' than 'performing artist' (see Fig 8.2).

A screenshot of a Reddit AMA by Trevor Something. The text is white on a dark background. It reads: "and then rely on the artist's popularity to sell tickets. I know people want to see me live but I don't want to be a slave on the road. Touring is rough not as glamorous as people might think. I'm not saying I will never perform live but I feel like my time could be more useful doing other things. I consider myself more of a creative artist than a performing artist." There is a small red heart icon to the right of the text.

and then rely on the artist's popularity to sell tickets. I know people want to see me live but I don't want to be a slave on the road. Touring is rough not as glamorous as people might think. I'm not saying I will never perform live but I feel like my time could be more useful doing other things. I consider myself more of a creative artist than a performing artist.

Fig 8.3 Trevor Something's Reddit AMA (02.2019).

These examples demonstrate some of the barriers to synthwave artists performing live, such as not having enough performance material (GUNSHIP) or not considering oneself a performing artist (Trevor Something). This is in addition to other barriers such as not having the appropriate performance skills to perform live, not having the confidence to perform live, or not having enough performing members to construct a live performance collectively. This is particularly apt if synthwave artists' first specialism is music production (e.g. Timecop1983), or if the group constitutes mainly songwriters and producers rather than performers. Both of these scenarios are common to synthwave artists. Whilst a possible solution to these issues is the use of session musicians, this could be prohibitively costly. Another possible solution is to set parts to track and trigger these live, but this may creatively compromise the performance (i.e, potentially lessening its 'liveness'), which the artist (or audience) may feel does not adequately represent the songs when in a live setting. This may result in artists not wanting to tour unless they can carry out the performance exactly as they wish, e.g. with X number of session musicians, with only X number of parts set to track, etc. What is significant of these logistic and financial barriers is that they are mediated by audience (here community) expectations of what a live synthwave artist should look and sound like. This is relevant of genre expectations also, and whether live traditions of synthwave adhere more closely to live traditions of EDM, or something else such as the rock tradition. These expectations in turn, may restrict synthwave artists from touring, for fear of not doing so authentically.

The reason why darksynth artists are overrepresented in my Tour Table is also related to touring barriers within the synthwave community – or rather the lessened amount of performance barriers. Specifically, there are fewer performance barriers to darksynth artists when touring live, due to their links to the metal genre, which has more traditional live performance practices (e.g. instrumentation - the guitar). Put another way, in darksynth artists organically having guitar performers within the group, automatically cuts down on the need for session musicians when touring. This can support lower costs with touring, which is

particularly relevant to emerging artists within the community who may have less financial capital for the purposes of touring. Having “in-built” performers within the group also has the potential to transcend some of aforementioned ‘liveness’ (Auslander, 2022) issues with EDM practices, such as gestures appearing invisible to audience members when unfamiliar interfaces (such as turntables, laptop computers, drum machines) are used as part of a performance. A live guitarist, playing this traditionally recognised instrument, would not have these issues to the same extent as an unfamiliar EDM interface. Equally, use of a performed guitar would lessen the amount of parts needed to be set to track, as darksynth artists typically have backgrounds in metal bands and may have experience performing live.

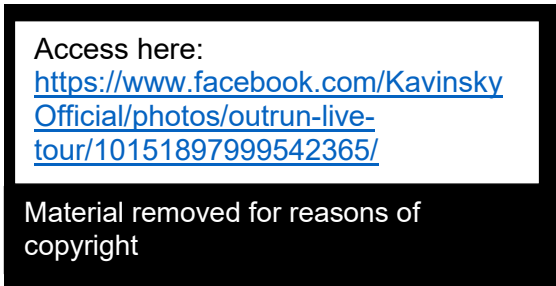
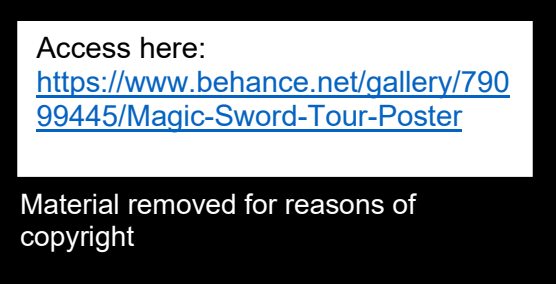
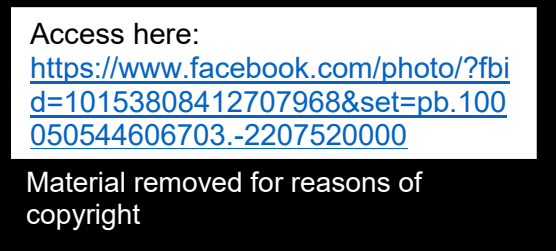
Table 8.1: Examples of Synthwave Artists Tours				
Artist & Tour Poster Tour Date & Year	Tour Locations	Artist Spotify Monthly Followers [as of Dec 2023]	No. of Studio Albums [as of Dec 2023]	Synthwave Subgenre
Kavinsky  Fig 8.4 Tour Poster ‘Outrun Kavinsky Live Tour’ (2013)	Europe (inc. London, UK) & USA	3,172,036	2	Outrun
Magic Sword  Fig 8.5 Tour Poster ‘Magic Sword First European Tour’ (2009)	Europe (no UK dates)	183, 848	5	Darksynth
Carpenter Brut 	Europe (No UK Dates)	861,680	5	Darksynth


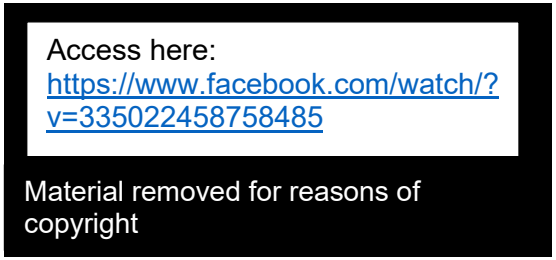
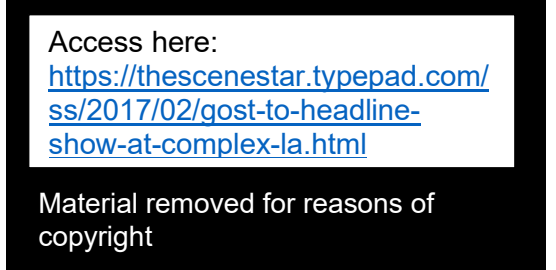

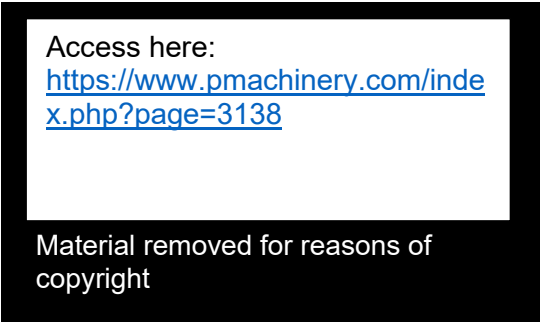
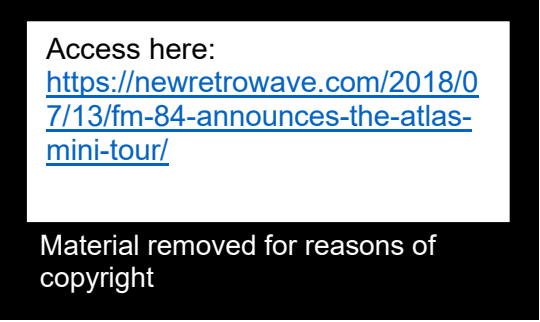
Fig 8.6 Tour Poster 'Carpenter Brut on The Loose' (2016)				
Perturbator  <p>Access here: https://www.facebook.com/Perturbator/photos/pb.375849962447174.-2207520000.1550267616./2338073899558094/?type=3&source=9&paipv=0&eav=AfaRrb6CFNq8-Ah3z4AilgLvaMjm548R_QfK66i2IQM7jcqWkfSTA2OPZUojeO0mOZQ&rdr</p> <p>Material removed for reasons of copyright</p>	USA only	628,636	7	Darksynth
Fig 8.7 Tour Poster 'Perturbator North America Tour' (2019)				
Dance with the Dead  <p>Access here: https://www.facebook.com/watch/?v=335022458758485</p> <p>Material removed for reasons of copyright</p>	Europe (inc London and Bristol UK).	409,203	8	Darksynth
Fig 8.8 Tour Poster 'Dance with the Dead Driven to Madness European Tour' (2022)				
GosT  <p>Access here: https://thescenestar.typepad.com/ss/2017/02/gost-to-headline-show-at-complex-la.html</p> <p>Material removed for reasons of copyright</p>	USA only	209,739	7	Darksynth
Fig 8.9 Tour Poster 'GosT Non Paradisi Tour 2017' (2017)				
The Midnight  <p>Access here: https://themidnight.wiki/wiki/Fall_2021_and_Spring_2022_Tour#/media/File:Spring_2022_na_leg.jpg</p> <p>Material removed for reasons of copyright</p>	USA only	844,165	9	Popwave

Fig 8.10 Tour Poster 'The Midnight Fall 2022 North American Tour' (2022)				
Parallels & NINA  Fig 8.11 Tour Poster 'Automatic Gold Tour Parallels and NINA' (2019)	USA only	11,266 (Parallels) 100,836 (NINA)	7 (Parallels) 4 (NINA)	Popwave
FM-84  Fig 8.12 Tour Poster 'Atlas Tour 2018' (2018)	USA only	235,511	1	Outrun

This section has functioned as a contextual section about synthwave, EDM and live music practices. It serves as a foregrounding to the next two sections, which document two live synthwave concert ethnographies respectively.

8.2 The Midnight – Live Concert Ethnography

A live ethnography of The Midnight was conducted in November 2019. The Midnight are frequently associated with the popwave faction of synthwave (PC, 2019; JL, 2019) due to their incorporating popular style vocals (often with verse-chorus structures) to their songs.⁹¹ They are a considerably high profile synthwave group within the community. Of their eight studio albums, their most recent is *Heroes* (2022) (to date, June 2023). My concert ethnography was part of the *Kids* (2018) album tour, of which there were four UK dates (including the Manchester date I attended).

⁹¹ Before popwave, synthwave had been traditionally instrumental (with exceptions).



The Midnight – November 2019 in Manchester, at the Royal Albert Hall

I was curious and excited to see The Midnight live. I was, in fact, motivated to see any synthwave artist live, since fewer perform tours relative to how many release music digitally. This is due to a number of factors (discussed in Section 8.1) with prominent examples including performer ability and community expectations of synthwave in a live setting. I was particularly intrigued to view the artists' instrumental and performer abilities, given the high representation of performers within the popwave subgenre (discussed in Chapter 7). I wondered to what extent the performance would adhere to traditions of EDM, as opposed to a band-style of performance or traditions of the rock genre. Of 'liveness' (Auslander, 2022), I questioned to what extent this performance would qualify, especially given synthwave's focus on synthesized instruments, and the genre having musical roots in EDM. It is for this reason that synthwave creator demographics are skewed towards producers rather than traditional musicians and/or performers, which in turn supports synthwave's position in the lineage of EDM. Equally, many synthwave artist members identify as producers rather than musicians, and traditional band structures (of say four members) are not the norm. This is true of The Midnight, who technically have two members – Tim McEwan ('a songwriter from the deep south') and Tyler Lyle ('a producer from Denmark').⁹² With only two members, I wondered how many session musicians would be used (if any at all), and how much of the performance would be set to track or triggered. I was also motivated to see synthwave offline. I wondered how many ties to 1980s culture synthwave would manifest in a live setting, or if I would feel synthwave's "sense of community" in a physical room full of people (away from my computer and the online community).

⁹² Quotes taken from The Midnight's official website: <<https://www.themidnightofficial.com/#tour>> (The Midnight, 2021).

My reasons for choosing to see The Midnight were partly logistical, since few other synthwave artists at the time had any UK dates (and I did not have the time nor resources to travel further afield).⁹³ The ethnography was conducted with me as participant observer (as an audience member), and I only conversed with my partner Josh (who accompanied me). The gig took place at The Royal Albert Hall in Manchester, a relatively large venue with a capacity (according to their website) of 2290. In the room where the gig took place, seating was divided into two levels: a balcony seating area and a dance floor below (viewable from the balcony).

Upon our arrival, the sound of applause reverberated around a nearly at capacity room. We had arrived late (thanks to public transport), and entirely missed the support act, 'Violet Days'.⁹⁴ As we fought through the crowd, I observed the people around me. At the time when this gig was attended, Josh and I were both 26. Others looked a similar age. Most people were in their 20s or 30s, with very few people looking older than 40. Some wore synthwave artist band t-shirts, of: The Midnight, Timecop1983, and darksynth artist Carpenter Brut. In terms of gender ratio, I estimated around three quarters of attendees to be male and one quarter female. This was surprising to me, as I had expected more female attendees given popwave's artist demographic. However, The Midnight are extremely high profile synthwave artists, and attract listeners from all factions of the community, not just popwave (i.e. The Midnight's listenership reflects the synthwave community as a whole). Something about the women was noticeable: most of their fashion choices mimicked subcultural styles. I saw women taking fashion tropes from Goth (my notes said 'fishnets, netted tops, all in black, coloured hair') as well as Grunge ('converse and plaid shirts or plaid pattern clothes'). I pondered what this might suggest about their music tastes. There was a distinct lack of women who looked stereotypically glamorous (in party dresses or similar), though I felt this was reasonable within the context of a gig. Many men showed tropes of the metal style (my notes read 'boys with very long hair'). I considered if these listeners had found popwave through an engagement with darksynth (a gateway metal-infused synthwave subgenre, discussed in Chapter 6 for its propensity to lead metal heads to other subgenres of synthwave).

As well as more general subculture fashions, there was a prevalence of 1980s fashion (perhaps a physical manifestation of synthwave's privileging of this decade). Many attendees wore head sweatbands or bomber jackers (and both of these items were available for sale at the merchandise stand). I also saw style icons of synthwave on people's clothing, such as the neon sunset, which some people had on their t-shirts. The merch stands sold

⁹³ Though a variety of synthwave artists tour different areas of Europe, tours are often US only.

⁹⁴ Violet Days is a female solo act, active as an artist since 2014 <
<https://www.instagram.com/violetdaysofficial/?hl=en>>.

CDs, vinyl and cassette tape versions of The Midnight's album *Kids* (2018).⁹⁵ These media forms, especially cassette tapes, demonstrated synthwave's privileging of the 1980s decade.⁹⁶ Alongside the fashions, music formats and neon lighting (which permeated the whole room in pink, orange, purple and yellow), I felt an odd sense of unity. Perhaps it stemmed from being in a room with such a concentrated age group – it felt like being in a high school class or attending a school disco.

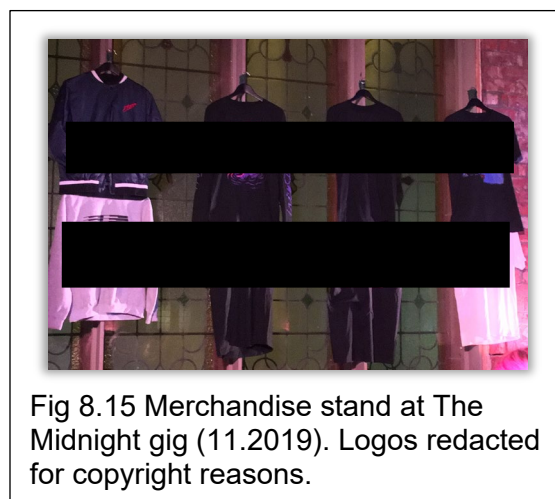
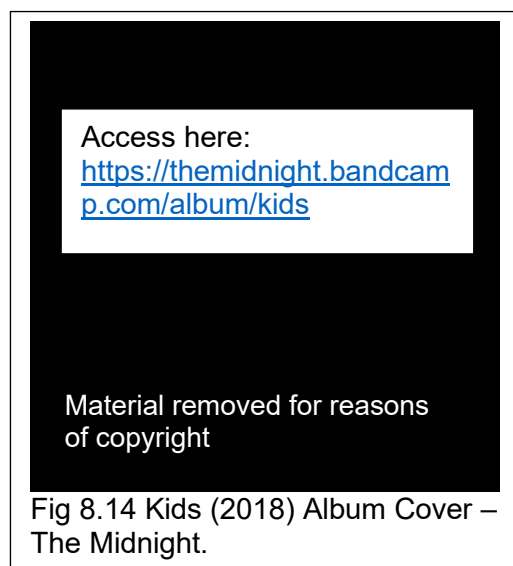
There were other indicators of attendees' age besides my visual assessments. A number of attendees wore t-shirts with famous 1980s and 1990s game characters (*Mario* [1985], *Crash Bandicoot* [1996], *Pokemon Blue Version* [1998]). I recall one person in particular wearing a *Spyro the Dragon* (1998) t-shirt (and excitably tapping on Josh' arm to point it out). Just seeing these images made me feel nostalgic, for the games I loved so much as a child.

As Josh and I waited for the show the start, we began scrutinising the stage setup. There were two laptops (placed sideways to the audience, facing inwards to the stage), one live bass (called live here to distinguish from a synth bass), two electric guitars, a drum pad, three synths (one a vocoder) and a live sax. There were no live drums (ala a mic'ed up acoustic drum kit) apart from one snare next to the drum pad. These choices signalled a mix of the EDM tradition (multiple laptops, synthesizers) and rock aesthetics ("traditional" musical instruments) of performance. At that moment, the room went dark and neon lights lit up the stage. Four people walked onto the stage: Lelia Broussard, who picked up the bass guitar and positioned herself next to a microphone on a stand. She stood back and central of the stage. The lead singer Tyler walked on, picking up one of the electric guitars and positioning himself front and centre of the stage. Tim (dressed in a shiny silver bomber jacket) walked on, standing stage right behind the drum pad and within reach of one of the synths. Jesse Molloy stood stage left behind another of the synths, within reach of the saxophone. All band members largely matched the age demographic of the audience. It was clear at this point that all performers would be playing multiple instruments throughout the set. I learned later that this was the case: Lelia at points moved forwards to duet with Tyler or sing entire songs by herself, she also played the guitar or bass in some songs. Jesse, the saxophonist, also played a synth. Tim played the drum pad, live snare, a synth, as well as operating a laptop and occasionally singing. Lead singer Tyler also played electric guitar and used the vocoder synth.

⁹⁵ *Kids* (2018) on CD, Vinyl and cassette tape is purchasable on The Midnight's web domain: <<https://www.themidnightofficial.com/>>.

⁹⁶ It is noteworthy, however, that non-synthwave artists have used cassette tapes in recent years. A general retro trend for these became apparent in 2019 with numerous Top 40 artists (Billie Eilish, Madonna, Kylie Minogue) (The Guardian, 2019).

The band opened with their song ‘The Years (prologue)’ (2014), before playing a second song, ‘Lost Boy’ (2018). The neon lights continued throughout the show; with pink, orange, yellow and purple prominently featured. This matched The Midnight’s album colours (see Fig 8.15) and merchandise styling, as well as supporting subcultural capital of synthwave, where such colours are iconic.



What was instantly noticeable of Tyler’s singing was his performance ability. The records had always made significant use of pitch correction, but it was clear after a few songs that this production effect was not corrective, but an aesthetic decision.⁹⁷ This is an example of the performance existing within the EDM tradition, with the vocal part sounding ‘like one of the instruments, de-humanized and robotic’ (Mazierska et al, 2021, p.1). This idea is supported by the use of a vocoder throughout the performance.

The performance ability of the saxophonist was particularly astounding, to the point where Josh and I were certain it was mimed (it was not). The Midnight’s performance was fantastic, with the musicians fluently moving around the stage to interact with each other, the audience and swap instruments in between songs. The fact that they were all multi-instrumentalists was particularly impressive; and allowed for a diverse set with not only different lead singers, but different combinations of the four musicians playing at once (see Figures 8.16-8.19). In this sense, the performance felt notably unlike the EDM tradition, and further towards a live band performance as per the rock tradition.

⁹⁷ You can hear pitch correction on the vocal line of The Midnight’s ‘Memories’ (2016) at 2’10-2’20. Available from: <<https://www.youtube.com/watch?v=USNFrnSQeFU>>.



Fig 8.16 The Midnight performing at the Royal Albert Hall in Manchester (07.11.19). Tim on synth (left), Tyler on lead vocals (right) and Jesse (saxophonist) playing guitar (centre). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.



Fig 8.17 The Midnight performing at the Royal Albert Hall in Manchester (07.11.19). Lelia singing lead vocals (centre), Tim playing the drum pad (left) and Tyler performing with the vocoder (right). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.



Fig 8.18 The Midnight performing at the Royal Albert Hall in Manchester (07.11.19). Tim preparing to play synth (left), Lelia (swapping from guitar to bass), Tyler preparing to perform guitar (right). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

The crowd were especially receptive when Jesse stepped forward to perform saxophone solos (SP6), cheering loudly (see Figure 8.19 below). The audience were extremely interactive throughout the show; clapping, swaying, dancing, singing along and chanting. There were no mosh pits but instead euphoric jumping around and dancing. The audience knew most of the lyrics to the songs, especially 'Jason' (2016), 'Sunset' (2016) and 'Lost Boy' (2018), and they sang these loudly especially at the point of vocal hooks or chorus sections.

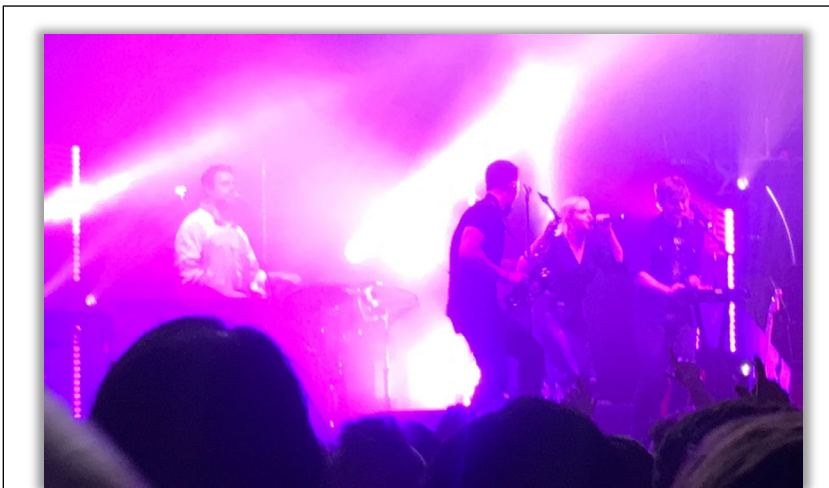


Fig 8.19 The Midnight performing at the Royal Albert Hall in Manchester (07.11.19). Tim left, Jesse centre, Lelia second from right, Tyler right. Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

At one point the group performed a cover of 'Don't Stand (So Close To Me)' (1980) (originally by Sting and the Police). It was a pared down arrangement, with a slightly slower tempo than the original. No drums were performed as part of the cover, and the song was set to backing track. The backing track contained a swirling montage of pad synths (SP4a), with a simple root note bass part (playing long duration notes rather than any constant rhythm). Over the track, Lelia performed a syncopated melody on the electric guitar. Tim sang lead vocals, changing the vocal melody considerably from the original. Prominently, he ascended pitches at the end of lines, with a crescendo heard on the lyric 'age' ('this girl is half his age'). Tim made frequent use of head voice (or male falsetto) for some of the vocal lines ('so bad it makes him cry'), again unlike the original. In general, Tim chose higher pitches than the original melody, and interspersed these parts with loud, cathartic chest voice notes. When these loud cathartic chest voice notes were sung, the audience cheered loudly, clapping in applause. The Midnight's cover of 'Don't Stand' (1980) was short, lasting around 40 seconds. It did not include the chorus from the original, instead performing the first verse and part of the second verse consecutively. In choosing to cover this song, The Midnight showcased synthwave's allegiance to the 1980s.

At the end of the show, the lead singer, Tyler, addressed the crowd, thanking everyone for coming out 'on a school night' (it was a weeknight). This comment made me chuckle, as I remembered the copious times my parents had said this to me when I was younger. Following this comment, Tyler expressed his amazement that '1800 people even know about us!' He shared his thoughts about the impact he felt the internet had had on the band's success: 'we wrote an EP and said well that was fun... then you guys wrote us (and hounded us!) on the internet and we had to write more!' It was odd to be addressed as 'you'

in this sense, knowing Tyler was directly addressing the online synthwave community. As I looked around the room, I felt a little awe-struck that many of the online community were likely stood around me at that very moment.

The Midnight – Live Concert Ethnography Summary

This concert ethnography illustrates synthwave's privileging of 1980s aesthetics, as well as the demonstration of synthwave subcultural capital. This refers to merchandise media choices such as the cassette tape, as well as the performance of a 1980s song cover, the use of pink neon lighting and tropes of 1980s fashion. Equally, both The Midnight themselves and the attendees contributed to a sense of community, from Tyler's comments about being out 'on a school night', to my identifying with the age group of attendees through their T-shirt choices. The whole experience made me think a lot deeper about the importance of synthwave's sense of community, and particularly in terms of such a concept potentially acting as generational unifier.

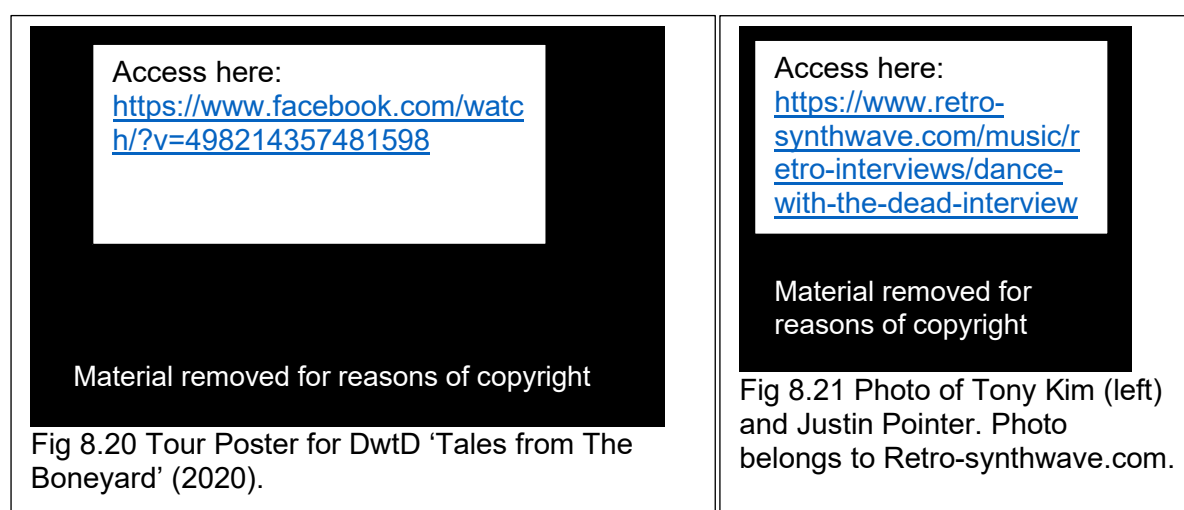
The concert ethnography offers insight of synthwave performance aesthetics, in terms of performer ability and performed style parameters. The Midnight's lead singer Tyler and saxophonist player were exceptional performers, though it should be noted that Jesse is a session musician and not a permanent member of The Midnight. The financial costs of hiring session musicians for tours cannot be understated, and it possible that this is one of the reasons why many synthwave artists do not (or cannot) tour. This is in addition to the fact that permanent band members may not be performers themselves. Tim is a producer and performer – though his performer instrumentation is clearly situated within the EDM tradition. It is entirely possible that some producers within the synthwave community do not feel confident performing in this manner as Tim does, either for fear of incompetence or simply the stigma and preconceptions attached to these styles of electronic performances. This is especially interesting when considering that in the example of The Midnight, the group tread such a fine line between identifying with a performance within the EDM tradition, and traditional rock performances. It is for this reason that I have avoided referring to them as a band. Despite this, their performer ability (and in some cases, performer virtuosity) is reflective of performances within the rock tradition. Yet their performance is punctuated by traditions of EDM through phenomena such as: pitch correction on the main vocalist's microphone, use of vocoder to affect vocal, use of drum pads rather than a traditional drum kit, use of laptop as instrument, and use of synthesizers.

Further to such an impressive live vocal performance, I observed specific popwave vocal aesthetics, most apparent during The Midnight's cover of 'Don't Stand' (1980). The prominence of head voice vocals, with the end of line cathartic chest voice parts,

demonstrated specific performative vocal styling of popwave. This signifies the importance of vocal melody styling and aesthetics within popwave. As well as vocal performance aesthetics, some key style parameters of synthwave were apparent in the arrangement of 'Don't Stand', such as the prominent pad synths (SP4a) on the backing track. Use of a backing track situates this moment of the performance as more within the EDM tradition, where the 'recording itself is the end composition' (Butler, 2014, p.67). However, the strong representation of vocal parts in the set overall (delivered mainly by Tyler and Lelia), places the holistic performance more firmly in the rock tradition. Of vocal performers and microphones in particular, Auslander explained how use of the microphone conveys an immediate sense of 'liveness' with its 'status'. He described: 'the very presence of the microphone and the performers' manipulation of it are [...] markers of the performance's status as live and immediate' (Auslander, 2022, p.29). Overall, I had thoroughly enjoyed The Midnight's performance, and eagerly awaited my next live synthwave experience.

8.3 Dance with the Dead – Live Concert Ethnography

The live concert ethnography of Dance with the Dead (hereafter shortened to DwtD) was conducted in February (2020). DwtD are a group associated with the darksynth faction of synthwave (Liam Emsa, 2019; PC, 2019), and consist of two members, Tony Kim and Justin Pointer⁹⁸. This concert was part of the 'Tales From The Boneyard Tour' (started in 2019 and continued into the early months of 2020⁹⁹) and comprised a variety of songs from DwtD's discography. It was the only UK tour date available. Tony Kim of DwtD discussed in interview with *Bloody-disgusting.com* the group's love of touring: 'Justin and I both have backgrounds in bands – punk rock, hard rock, metal bands. It's in us to want to perform as musicians rather than just releasing [our music] on the internet' (Vehling, 2019).



⁹⁸ Photo of Tony Kim and Justin Pointer: <<https://www.retro-synthwave.com/artists/dance-with-the-dead>>.

⁹⁹ The tour was later halted upon the beginning of national pandemic Covid-19.

Tony Kim's comment appears to recognise their audience on the internet, though whether they were referring to the synthwave community specifically is unconfirmed. If they were, it is likely that they are too, aware, that few synthwave artists tour relative to how many release music online.

Dance with the Dead – February 2020 in Tufnell Park, London, at The Dome

I was intrigued to see DwtD live for three main reasons: attendee demographics and audience behaviour, 'liveness' (Auslander, 2022) of performance and realisation of synthwave style parameters (including to what extent the performance existed within the EDM tradition) and tangible or intangible manifestations of synthwave subcultural capital. By extension of performance style, I wondered how much of their metal influences would be clear in the set, since DwtD are considered as belonging to the darksynth subgenre (discussed in Chapter 6). With regards to live performances, I had previously read about DwtD that: 'At shows, Kim and Pointer alternate their approach: sometimes both are on axes [guitars] and let the machines do their work, at other times it's one of them on guitar and another behind the synthesizers, or both are at the keys' (Vehling, 2019). As such, I pondered what combination of technology, instrumentation and session musicians I would see upon my visit. I was a little skeptical of seeing an instrumental group perform in general. As a trained singer myself, I have always enjoyed seeing others perform vocals, and wondered how DwtD would grip the audience without this melodic crux. In this sense, I suspected that this artist would fall more closely within the EDM tradition than The Midnight had, since 'a significant portion of EDM production is instrumental' (Mazierska et al, 2021, p.15).

The concert ethnography was undertaken with myself as participant observer (as an audience member), and the only person I conversed with was my partner Josh (who accompanied me). The gig took place at 'The Dome' in Tufnell Park, an area just north of Camden Town in London. The Dome is a small venue with a capacity of 500 (Dome Tufnell Park, 2020). The room was overall very basic, as if an old school hall had been converted. Immediately noticeable to me was the room capacity to people ratio. The DwtD gig was not full to capacity, and Josh and I could move freely around the room without physically bumping into anyone (I estimated a 75% capacity).

Josh and I had encountered DwtD gig attendees from the moment we stepped off the tube at Tufnell Park. Three men (two British, and one continental European) were all wearing DwtD T-shirts. They began to converse after having recognised each other from a previous DwtD gig, chatting idly of their gig attending habits whilst exiting the tube station together. As Josh and I left the tube station, I mused if DwtD had some elements of a niche

following (possibly emanating from the metal scene) rather than a sole reputation within the synthwave online community.

As we entered the gig room, support act Das Mortal had just begun his set, who I had not heard of before. Through Google, I learned that he was known for having written soundtrack music for a short French film. He appeared to associate with synthwave, with some of his song titles on YouTube including '[SYNTHWAVE]' as part of their title. His Twitter also included '#synthwave', a hashtag which accompanied some of his tweets. Following my quick Google search on Das Mortal, I looked up and noticed that his setup was more like a DJ set, with the artist himself and a laptop only present onstage. As I listened, the set reminded me of Techno music or EBM (Electronic Body Music). I joked to Josh that all we were missing was glow sticks and drugs, that this live gig felt much more like a rave. Raves are associated with the EDM tradition (Jori, in Mazierska et al, 2021, p.26), demonstrating another example of how this performance might be situated within live practices of EDM. Das Mortal's instrument of choice, a laptop, also supported this idea (Butler, 2014, p.68). Whilst I don't reject the computer as a performative instrument, I did feel a lack of connection between Das Mortal and the audience. Whilst he did look up to cheer or gesture his arms in the air occasionally, Das Mortal mostly engaged with the computer, and for me this lacked an important aspect of 'liveness' (Auslander, 2022). Butler recognised potential issues with laptop performances within the EDM tradition, namely occasions when the 'musician must devote full attention to the screen: this precludes the performer from making contact with the audience' (Butler, 2014, p.96). I realized at that moment how important 'liveness' (Auslander, 2022) was to me, as I reflected on having enjoyed The Midnight's performance much more than I was enjoying Das Mortal's. On balance, I could not confirm via tour posters, marketing materials or social media if this was a DJ set (as opposed to a live performance), so it is possible that this mode of performance was appropriate and as advertised (i.e. a DJ set).

Now standing at the back of the room (just feet away from the merch stand), I spent the remainder of Das Mortal's set looking around the room at the crowd. I noticed 'metal heads', or men with long hair (Kahn-Harris, 2007, p.1; Hutcherson & Haenfler, 2010, p.114) wearing Doc Martens, with lots of tattoos and black clothing or band t-shirts. These observations reinforced tropes of masculinity traditionally associated with metal, captured well by one male wearing a Download 2019 t-shirt (a festival renowned for its allegiance to metal music), and another wearing a Carpenter Brut t-shirt (a high profile male darksynth artist). Equally, a large number of people wore DwtD t-shirts, suggesting again that the group have a loyal following. Women fit the alternative category, dressed in tropes of goth or metal or grunge clothing. I saw dyed hair, heavy eye make-up, plaid or flannel shirts, fishnet tights, and again, Doc Martens and black clothing. It should be noted that I too, fit this

category of dress. There was a distinct lack of popular culture, or mainstream 2020 fashion (which I find hard to describe), but I recall a lack of blue ripped high waisted jeans, assorted coloured crop tops and trendy sports trainers. Of gender ratios, I estimated a 60:40 split in the men's favour, with DwtD attendees looking largely aged 18-35.

When Das Mortal had finished his set, I turned my attention to the merch stand where I noticed Das Mortal and DwtD T-shirts being sold, as well as Das Mortal vinyl records. DwtD were instead selling CDs (though upon checking, they also sold vinyl online). DwtD were offering a £10 signed polaroid photo opportunity (similar to a short meet and greet) after the gig; an opportunity that Josh and I did not take up due to time constraints. Nonetheless, seeing these older technology formats (vinyl records and polaroid photos) indicated synthwave's privileging of 1980s aesthetics. I suspected that the Polaroid experience was also an extra source of income for the group, given the costs of touring. I also felt that the meet and greet supported my considerations that DwtD have a niche and loyal following, if the group were consistently meeting listeners or fans at different tour dates.

I next turned my attention to the stage setup, which was slowly being assembled following Das Mortal's set. Roadies were bringing on parts of a live drum kit, two guitars, one synth and no microphones. I felt immediately disappointed by the latter – questioning how the performers would address the audience. My thoughts on this reflect Auslander's view of the microphone as a symbol of 'liveness' (Auslander, 2022, p.29). I was however, encouraged by the live drum kit, and thus far DwtD's instrument choices were treading the lines of both EDM and rock traditions of performance. DwtD's links to metal were also apparent, with one of their synths being balanced on a giant skull figure. This is consistent with the band's skull imagery (see Fig 8.22), as well as reflective of skull imagery used by metal artists generally (e.g. of album covers, such as Black Sabbath's *Sabbath Bloody Sabbath* [1974] [Bayer, 2009, p.135]).

Access here:
<https://dancewiththedead.bandcamp.com/album/driven-to-madness>

Material removed for reasons of copyright

Fig 8.22 *Driven To Madness* album (2022) DwtD.



Fig 8.23 Synth on a skull, see right (14.02.2020). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

No laptop or bass guitar was brought on. With this in mind, I pondered how many session musicians would be used, and how much of this performance would be triggered or performed to backing track.

When the set started, three performers came on stage. Justin, Tony and a session drummer. The session drummer and Tony Kim looked to be in their early 30s. Justin Pointer looked older, possibly in his mid 30s. Each song performed was introduced by a triggered monologue, and all songs performed to backing tracks. The laptop was not visible on stage, and backing tracks appeared to be being triggered by the sound engineer at the back of the room. Backing tracks had elements of drums on them (the only live drums present were kick, snare and some cymbals) as well as bass guitar, and nearly all of the synth parts. Justin Pointer (playing mostly rhythm guitar parts) at points would play an arpeggiator on a synth (SP2), triggering full arpeggios by playing singular notes. This was confirmed when I noticed Justin playing a root note before taking a sip of his beer, and meanwhile the full arpeggio was heard. There were no vocal mics set up at all, not even for talking, and at no point did any band member address the audience vocally. Tony Kim (mostly playing lead guitar parts but also some rhythm parts) did interact with the audience occasionally, waving at the audience in between songs. This was recognised by the audience, who cheered in response. Overall, I believe the lack of human voice and strong representation of parts set to track placed the set quite firmly in the EDM tradition, and certainly more so than The Midnight's performance.

In terms of the audience's interaction throughout, there seemed to be a split halfway through the room – of the front half and the back half (in terms of closeness to the stage). People towards the back (where Josh and I were stood) were nodding their heads in time to the music, simultaneously standing still with their hands in their pockets (or hand in their pocket and drink in the other hand). The front half formed mosh pits and circle pits, on one occasion motivated by Tony Kim, who gestured a circle pit by making a spinning motion with his fingers. Kahn-Harris described moshing as 'a form of dancing involving intense and violent physical activity' (Kahn-Harris, 2007, p.44). The people at the front were more aggressively head nodding, or 'headbanging' instead (Hutcherson & Haenfler, 2010, p.110). Many moved their head in a circular motion (causing those men with long hair to consequently whip their hair around) whilst ascending their hands in the air (see Figure 8.24). Audience members also displayed the devil horns hand gesture, which is ubiquitous to metal (see Fig 8.24). These audience behaviours align with traditions of live metal shows, supporting the band's allegiance to metal genres. The room was quite literally buzzing, and the music was so loud I could feel the bass on the backing track pounding through me as if I were in a nightclub or at a rave.



Fig 8.24 The audience raising their hands in response to DwtD's performance (14.02.2020). Copyright © 2023 Dr Jessica Blaise Ward. All rights reserved.

At one point the group played a remixed cover of Metallica's 'Master of Puppets' (1986), signaling an allegiance to metal.¹⁰⁰ The differences between the original and their cover demonstrated synthwave style parameters, namely: a slower tempo, altered drum patterns and synth arps. The song was played to backing track (as were all other songs) and was inclusive of the original vocals by Metallica. It was performed at a slightly slower tempo than the original, and incorporated synth parts not heard in the original (such as the supportive arpeggiated melody, heard on the track amongst the live rhythm and lead guitar parts that Justin and Tony were playing). The drums on the backing track were different from the original Metallica version, instead more reflective of synthwave style drums. This refers to their timbre and drum patterns. The drum timbre emulated songs from the 1980s, many of which used original hardware drum machines.¹⁰¹ The drum patterns were simplified (ala synthwave and derivatively some forms of EDM) to four-to-the-floor patterns (specifically, $\frac{1}{4}$ note beats with the kick and snare alternating each beat).

As the show ended, Josh and I reflected our thoughts walking back to the tube. In terms of performance aesthetics and 'liveness' (Auslander, 2022), we agreed a slight disappointment with the ratio of triggered elements to live playing. Even with the use of a live drummer, the performance didn't have the sort of impact we were expecting. The bulk of the synth parts (crucial to style parameters of synthwave) were all set on the backing track, and the only live one was used as a MIDI controller (for triggering arpeggios) rather than a performative instrument.

¹⁰⁰ DwtD's remix cover of Master of Puppets is available from: <<https://www.youtube.com/watch?v=bGcXtCg-eOY>> (Retro Aesthetics, 2018). Metallica's original is available from: <<https://www.youtube.com/watch?v=kV-2Q8QtCY4>> (Metallica, 2013).

¹⁰¹ For example, The Linndrum (manufactured between 1982-85) or the Linn LM-1 (released in 1980).

Dance with the Dead – Live Concert Ethnography Summary

This concert ethnography witnessed a privileging of 1980s aesthetics both tangibly (through older music formats as merchandise and the performance of a 1980s song) and intangibly (through a meet and greet experience with a polaroid photo). It also observed how DwtD identify with performance traditions of EDM, given the prevalence of parts set to track and modes of communicating with the audience. This highlighted to me the importance of performance aesthetics of synthwave, and in particular, made me question how performers should translate style parameters of synthwave in a live setting. Whilst style parameters of synthwave were evident by DwtD's cover of Master of Puppets (e.g. SP2a – Arps, SP5 – Four-to-the-floor Programmed Drums) these were mostly set to backing track, as was a large proportion of the set. It is my feeling that this choice did not represent the synthwave style adequately, questioning how much triggered/use of backing track is acceptable within the domain of a synthwave live performance. Whilst DwtD have established their performer backgrounds in metal bands, it is possible that they do not possess specialised skills with performing live on synthesizers, or if they do, did not demonstrate these skills on this occasion. It occurs to me that playing with synths is relatively vital when performing synthwave. Whilst I appreciate the place of root note triggers for arpeggios or basslines, (especially when dealing with 16ths at faster tempos) I argue that style parameters SP3a – Synth Lead and SP4a – Pads need to be performed live. It is possible that hiring a session synth player was financially prohibitive for the group, which may also be a contributing factor to why many synthwave artists do not tour. It is also possible that not all synthwave artists have the appropriate performer skills to tour (i.e. do not play a traditional instrument), given that many of them have primary skillsets in production. In other words, it would seem that DwtD carried out this performance in a way that was logistically, financially and performatively possible for them. When reviewing some of my virtual ethnography data, I found that many synthwave community members were judging darksynth artists by perceived ideas of 'liveness' (Auslander, 2022), as shown in Figures 8.25-8.29. These discussions clearly debated the value of live instrument performance, interaction with the audience, and to what extent darksynth should operate live practices of EDM.

really excited for the concert but I have to admit that I left disappointed.

Daniel Deluxe just put on a playlist with his songs and acted like he was dialing some knobs on a MIDI controller. (Of course I can't confirm 100%

Dance With The Dead was a disappointment though. The sound was just terrible. They performed together with a live drummer and you could often only hear snare and cymbals. I know

With both bands I would have loved if they would have interacted more with the crowd - but they did not even have microphones to talk to the audience. They created a playlist with the songs

Fig 8.25 [Reddit Screenshot] Reddit discussion about darksynth artists Daniel Deluxe and DwtD (Anon, Reddit, 2022).

His first shows were much more traditional EDM, he'd come out in a hoodie, play his set and that was that. I loved it and do miss his earlier sound a bit, but over time he incorporated more live elements, more sophisticated light shows, and a drummer, and he's definitely become much more confident live. His sound has evolved to become

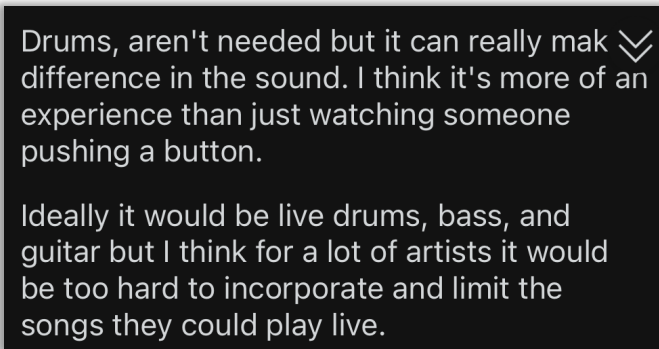
Fig 8.26 [Reddit Screenshot] Reddit discussion about darksynth artists, here Perturbator (Anon, Reddit, 2022).


Magic Sword has live drums and guitar, and they put on a great show. Lots of interaction with the crowd (waving light up swords).

Gost plays with a live bass. Some of the same where almost all the music is electronic, so there wasn't much for him to do otherwise. However, his newer songs he sings and spoke to the crowd here and there. That stood out for me.

I think live instruments are the key to a good performance, as it changes the landscape of just pushing a button to actually attending and seeing a performance.

Figure 8.27 [Reddit Screenshot] Reddit discussion about darksynth artists, here Magic Sword and GosT (Anon, Reddit, 2022).

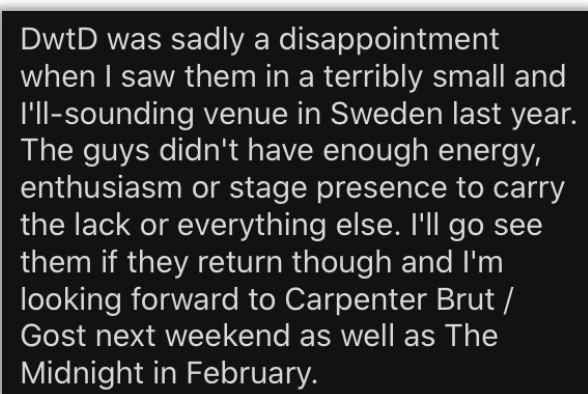


Drums, aren't needed but it can really mak 
difference in the sound. I think it's more of an
experience than just watching someone
pushing a button.

Ideally it would be live drums, bass, and
guitar but I think for a lot of artists it would
be too hard to incorporate and limit the
songs they could play live.

Fig 8.28 [Reddit Screenshot] Reddit discussion about darksynth artists (Anon, Reddit, 2022).

These comments suggest that community members appreciate and to an extent, expect confidence in performing live by synthwave artists. Comments also suggest that this should involve traditional instruments (e.g. bass guitar, through live vocals), in opposition to 'pushing a button'. This seems contradictory given synthwave's musical roots in EDM, where non-traditional instruments would be considered a norm. Despite synthwave's strong roots in EDM, it would appear that community members hold synthwave artists to live standards associated more commonly with the rock tradition.

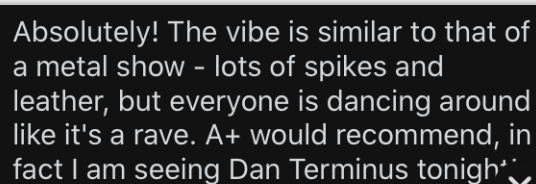


DwtD was sadly a disappointment
when I saw them in a terribly small and
l'ill-sounding venue in Sweden last year.
The guys didn't have enough energy,
enthusiasm or stage presence to carry
the lack of everything else. I'll go see
them if they return though and I'm
looking forward to Carpenter Brut /
Gost next weekend as well as The
Midnight in February.

Fig 8.29 [Reddit Screenshot] Reddit discussion about darksynth artists, here DwtD (Anon, Reddit, 2019).

These discussions demonstrate some of the tensions that exist with synthwave in the live performance domain, in that expectations of artists by the online music community do not align squarely with live practices of the EDM tradition. As shown by Figures 8.25-8.29, comments suggest that artists are expected to have music performance skills on traditional instruments, and at the very least to engage with the audience gesturally or through their voice (with a microphone). This data from my virtual ethnography demonstrates that my experience of DwtD live was not unique, and that I too, had pre-conceived ideas and expectations of what form the live performance would (or should) take. My experience of

audience behaviour was also similar to comments made by the online community, of audience ‘headbanging’ (Kahn-Harris, 2007, p.1) and moshpits (Hutcherson & Haenfler, 2010, p.111). These behaviours are in line with practices of metal, which the darksynth subgenre has ties to. Despite these clear ties to metal, the DwtD show I experienced overall felt like a rave, or as if it would be suited in a club setting (with a combination of the lighting, fast tempo music and people jumping around). Members of the online community also noted a crossover with traditions of metal and EDM when viewing darksynth artists live (see Fig 8.30).



Absolutely! The vibe is similar to that of a metal show - lots of spikes and leather, but everyone is dancing around like it's a rave. A+ would recommend, in fact I am seeing Dan Terminus tonight' ⬇️

Fig 8.30 [Reddit Screenshot] Reddit discussion about DwtD live (Anon, Reddit, 2019).

Chapter 8 Conclusion

This chapter has demonstrated some of the tensions within the online synthwave community with regards to live music practices, notably of barriers to touring and expected modes of live synthwave performance by the community. Most significant of these tensions is that despite synthwave's musical roots in EDM, community members' expectations of live synthwave align more closely with the rock tradition, and traditional band performances. This was evident in my own experience of live synthwave performances, which I reflected on throughout my concert ethnographies, and also of my virtual ethnography. Through these methods, I have shown how performing on musical instruments (and in my experience, particularly synth) paired with use of the human voice, are key definers of ‘liveness’ (Auslander, 2022) by the online synthwave community. I have also shown how physical gestures and audience interaction are important in conveying ‘liveness’ (Auslander, 2022). When performing synthwave, too much use of setting instruments to track, and particularly the synth parts, is a detriment to ‘liveness’ (Auslander, 2022) in the estimations by the online community.

By extension of liveness, I have incorporated into my discussion a consideration of synthwave style parameters, including which of these, and how, they ought to be realized to best meet expectations of ‘liveness’ (Auslander, 2022) by the online music community (noting particularly Parameters SP3a – Synth Lead and SP4a – Pads).

Equally, of touring motivations and practices by synthwave artists, this chapter has made clear that synthwave creators' common position as a music producer has implications when taking synthwave "on the road". I have noted important factors in this such as performer ability and confidence, artist financial capital, artist creative vision, artist identity and choice, and modes of performance when contending with synthwave's roots in the EDM tradition. Overall, there is much more to be learned about live synthwave practices as artists continue to tour, and especially of synthwave artists who are yet to tour, such as GUNSHIP. From their Reddit AMA (discussed in this chapter) they appear to recognize the tension in performing synthwave in line with traditions of EDM or the rock tradition: 'We are figuring out how we'd take Gunship live [...] we have to work *really really* hard on every aspect of the production. [We have to figure] out how to do justice to the songs live, [...] creating an engaging and cinematic overall experience' (GUNSHIP Reddit AMA). Overall, this chapter has highlighted how live synthwave practices are being mediated by community expectations. It is clear that community expectations of recorded synthwave music and live synthwave music are not wholly cohesive, in that creation traditions of EDM are accepted for recorded synthwave music, but less accepted when within the context of a live performance.

Chapter 9: Discussion

This chapter will discuss the themes from the data presented in chapters 4 (Defining the Synthwave Community of the 21st Century), 5 (Synthwave Creative Processes), 6 (A Gateway from Metal to Synthwave under the influence of John Carpenter: the Darksynth subgenre), 7 (Female Topliners: Popwave and Gendered Practices of Synthwave) and 8 (Live Synthwave Practices). My discussion integrates portions of my literature review. The chapter is structured as follows: Genre Formation (9.1), Community Identity, Values & Practices (9.2), Subcultural Capital and connections to the 1980s (9.3), Tensions & Negotiations (9.4).

9.1 Genre Formation (and Community Terminology)

Whilst this thesis has clearly outlined the synthwave genre as an online music community and CoP, my virtual ethnography data showed that members' most frequent terminologies are community, genre or scene. Equally, some of my survey respondents (Chapter 4, September 2019) termed it a 'virtual subculture' (Survey Anon, 2019). In my view, use of 'subculture' demonstrates an attempt by community members to legitimise synthwave as a genre, by placing it alongside musical genres with longer and better-known histories and legacies, such as the late 1970s and early 1980s punk and post punk, 1980s goth or 1990s grunge. These styles are notably pre-Web 1.0 (and resultantly pre-Web 2.0, 3.0), and emerged in line with the CCCS'¹⁰² definition of subculture, which viewed the latter as creative collectives by young people, who sought to answer society's problems through group symbolism and unity (Jensen, 2018, p.407). However, in using 'virtual subculture' (Survey Anon, 2019) the contemporary context in which this music community formed is recognised, against the backdrop of Web 2.0. Web 2.0 is a period of web usage characterised as giving 'its users the free choice to interact or collaborate with each other in a social media dialogue as creators (prosumer) of user-generated content' (Singh et al, 2011, p.148).

The idea that community members would want to legitimise synthwave through subcultural terminology is relevant of memory scholar Hogarty's (2016) work, who found that many young people attested style authenticity to 'older music and [music technology] formats' (Hogarty, 2016, p.53), in her text about music fans across three generations (Millennials, Generation X, Baby Boomers) (Hogarty, 2016, p.24). This is relevant to the

¹⁰² This refers to the Centre for Contemporary Cultural studies at Birmingham University, who in 'the second half of the 1970s [...] produced a series of highly influential texts on the relationship between (predominantly white, male, working class, heterosexual, British) youth and popular culture' (Griffin, 2014).

online community's occasional incorporation of 'synthpop' to synthwave playlist titles, music reviews (as shown in Chapter 7) and the genre's general discourse. This occurs to me as a further attempt by the community to legitimise synthwave as a genre, whilst also positing synthwave as stylistically comparable to 1980s synthpop, a genre which too takes the synthesizer as a key component of its musical identity. Additionally, synthpop emerged in a decade that the community privileges (the 1980s), thus supporting synthwave subcultural capital. Community discourse aside, it should be noted that there are key musical differences between 1980s synthpop and 21st century synthwave (e.g. synthwave's soundtrack influences), as well as obvious historical and temporal genre differences (i.e. synthpop did not emerge in the period of Web 2.0 and would not be considered an online music community). What is most significant of the community's usage of the term synthpop, is their attempt to situate their own collective community identity in reference to an existing and recognisable musical genre, which acts as a baseline (no pun intended), through which to begin to understand synthwave.

It is synthwave's genre formation on the internet which makes it so significant, synthwave never existed offline (or "in real life") before it existed on the internet. It is a genre which formed only because of, and facilitated by, the internet. For this reason, it might be more appropriate to use post-subcultural terminology to frame synthwave, such as 'scene', which is used commonly by members (evident by virtual ethnography and noted particularly in the survey). Bennett & Peterson defined a scene as: 'situations where performers, support facilities and fans come together to collectively create music' (Bennett & Peterson, 2004). Whilst members did not term synthwave a *virtual* scene in the survey (rather, simply 'scene'), in practice, the significance of the internet to synthwave, as well as the act of being online to engage with its 'scene' 'facilities' (Bennett & Peterson, 2004), is understood by members. Bennett and Peterson defined a virtual scene as: 'Net-mediated person-to-person communication between fans, [...] the scene is therefore much [...] in the control of fans' (Bennett and Peterson, 2004, p.11). Though an earlier term in the online music community lexicon (which better refers to musics of Web 1.0 and an emerging Web 2.0, the period in which Bennett and Peterson's text is set), the 'virtual scene' does recognise the agency held by its members. Synthwave community members' use of 'scene' rather than virtual scene also shows an increasing acknowledgement of synthwave's reputation and manifestation *outside* the online community. Though born online, synthwave has not remained exclusively online since its inception in the mid 2000s.

Another reason why post-subcultural terminology may be more appropriate for synthwave relates to criticism of subcultural theory's 'gendered epistemology', which inadequately deals with the experiences of women (Hill, 2014, p.174). In response, authors such as Rosemary Lucy Hill have suggested post-subcultural terminology including

'community of imagination' and 'imagination community' (rooted in Anderton's 1991 imagined community concept) (Hill, 2014, p.182). Both advance some of the epistemological concerns of subcultural theory, and to some extent support the usefulness of the online music community as a musical and cultural framework in the 21st century. However, terminologies within the post-subcultural landscape (such as scenes or online music communities) are not without their criticisms, with one of the main concerns being access to cultural commodities (Bennett, 2011, p.500). This criticism recognises one of the key tenets of post-subcultural theory, in its proposition of 'conceptual alternatives which [...] better reflect the reality of contemporary youth cultural terrains' (Jensen, 2018, p.409). Such alternatives, such as 'scene, lifestyle and neotribe' (as well as online music community in this context, though not noted by Jensen) emphasise 'agency, choice, reflexivity and individuality' by young people (Jensen, 2018, p.409). Relatedly, post-subcultural theory proposes an advancement of the CCCS' subcultural framework, criticising the latter for being 'over[ly] preoccupied with structuralist concerns[,] and to have never considered that young people might play with subcultural roles for fun' (Jensen, 2018, p.409). However, access to cultural commodities which enable this 'play' are not universal. To access an online music community for example, requires the internet, which Hine described as: 'a mass phenomenon, but it is not universally available, and there are still some underlying inequalities that structure access' (Hine, 2020, p.6). This should be acknowledged when discussing online music communities.

Ultimately, access to cultural commodities is restricted by an individual's level of accessibility, be it financial, time-related, or other factors. With an online music community such as synthwave, an individual's access may be restricted by their music technology resources or education, which may limit or impair their ability to engage with community activities such as song writing or music production (e.g. possession of a computer which facilitates a DAW, ability to purchase plugins or software synths, knowledge and understanding of music theory or song writing, knowledge and understanding of practices of DAW-usage and sound design etc). As such, whilst post-subcultural terminologies might be more appropriate to acknowledge the contemporary landscape of the online synthwave community, this is not without recognising issues of access.

The synthwave genre has clearly formed cultural, social, musical, stylistic and technological traditions, as outlined in Chapters 4 and 5 of community practices and creative processes. To revisit definitions of genre by Hesmondhalgh (2005), Holt (2007) and Tagg (2012), genres entail 'a group of people' (Holt, 2007, p.3) who produce, and act upon, conventions and expectations, or 'cultural codes that [...] include musical rules' (Tagg, 2012, p.267). Such musical 'rules' include synthwave style parameters (listed in Chapter 4 and demonstrated in Chapter 5), particularly relating to subtractive synthesis and software

synthesizers. The manifestation or realization of synthwave as a genre is through an online music community, which has been termed, 'a group of people who interact in a virtual environment' with a purpose, which includes rules and norms (Preece et al, 2003, p.1023). Examples of rules and norms include the traditions of synthwave subgenres (which have defined musical differences that set them apart from each other), or the visual expectations of synthwave artwork (the neon sun and grid lines). Other rules include traditions of synthwave artists names, which commonly include the 1980s decade or make reference to 1980s technology formats e.g. VHS Dreams, Digikid84, Miami Nights 1984.

By extension of synthwave as a genre, I propose that synthwave may be considered a CoP, 'a special type of community', which is 'not a synonym for group, team, or network' (Wenger, 1998, p.73) and has three dimensions (Wenger et al, 2002). These include the *domain* (a common ground with a sense of community identity), the *community* (a social structure of engaged members which facilitates learning) and the *practice* (the shared repertoire or knowledge maintained by the community) (Wenger et al, 2002, pp.28-29). The *domain* relates to synthwave's genre formation as an online music community and collective identity as such. The *community* relates to positions held by its members and include the power relations and resultant negotiations between such members (as individuals or groups), which in turn form and finesse community values and practices. The *practice* may be thought of as a type of subcultural capital, which is communicated, negotiated and maintained by members. It may also be thought of as synthwave's affiliated community knowledge of, and expected engagement with, key artists, media and creative processes.

With relation to the *practice*, the *community* dimension of a CoP is particularly significant to synthwave, due to the focus on community resources which support and sustain its existence. These shared learning resources (e.g. YouTube tutorials on "how to make a synthwave bassline") allow new members to engage with and ultimately join the synthwave community, which in turns leads to them learning community knowledge which sustains their membership. This is not without being entered into an invisible social structure (of music producers, artists, performers, specialists, playlist curators, fans, amateurs, hobbyists, etc), however, through increased engagement with, and contributions to the community, one can increase their social capital.

As the following sections of this chapter discuss themes and findings from my data (from Chapters 4, 5, 6, 7, 8), I refer also to specific examples of synthwave as a CoP, and its three dimensions of *domain*, *community* and *practice* (Wenger et al, 2002, pp.28-29).

9.2 Community Identity, Values and Practices

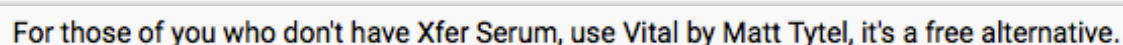
The basis of synthwave's community and genre identity (its *domain* with relation to a CoP) is through their relationship with the 1980s decade, the synthesizer and community ideals of nostalgia. The 'ersatz' (Appadurai, in Boym, 2001) or reflective (Boym, 2001) nature of synthwave nostalgia is recognised by the community, with an understanding that the 1980s that they hark back to is an idealistic version. Boym suggests that those with reflective nostalgia 'are aware of the gap between identity and resemblance' and are nonetheless 'homesick for a home that [they] never had' (Boym, 2001). This refers to the "actual" 1980s against the online synthwave community's conceptualisation of it, which Boym would describe as restorative nostalgia of the former and reflective nostalgia of the latter (Boym, 2001). Synthwave nostalgia is not literal in the sense that it is age-dependent, and my survey respondents represented three different generations: Generation X, Millennial and Generation Z. Using social research scholar Hogarty's (2016) definitions for these generations,¹⁰³ most of my survey demographic fit the Millennial generation, a generation whom she conceptualised as a 'generation unit' (likened to a peer group) who share a 'sociohistorical location in 1980s to 2010s Western society' (Hogarty, 2016, p.27). Hogarty would categorise the smaller portion of my survey demographic as Generation X (the oldest respondent born 1975). My youngest respondent was born in 2002, and would be considered Generation Z. Given the online nature of the survey, it was somewhat expected that individuals from older generations would be less represented overall (i.e. Millennial's and Generation Z's social media usage is higher overall). Nonetheless, the combination of survey, virtual ethnography and interview data recognised a mix of ages present within the online synthwave community, who all relate to synthwave's nostalgia in ways which make sense to them.

Pertinently, Generation Z and younger Millennials (i.e. those born 1990s onwards) did not live through the 1980s, supporting my argument of synthwave nostalgia as vicarious, ersatz (in Boym, 2001) or reflective (Boym, 2001). Despite the different ways in which community members relate to the 1980s (whether vicariously or otherwise), a shared understanding of nostalgia is understood by members of the online synthwave community. The term 'nostalgia', here specifically in reference to the 1980s, is key to their community identity, forming a group identity which contributes also to member self-identity and self-concept. Broadly speaking, members who did live through the 1980s do not dispute nor attempt to police younger members' synthwave nostalgia. On the contrary, they appear to

¹⁰³ Hogarty (2016, p.24) defined Generation X as born between 1965 and 1979, and Millennials as born between 1980 and 2000.

embrace the opportunity to engage with nostalgic reminders of their childhood and youth, and find it unproblematic that those who have not lived through the 1980s embrace tropes of it too. This cohesion only strengthens synthwave's affiliations with nostalgia, which can be likened to the Englishness of Britpop (Bennett & Stratton, 2010) the 'masculinity' of metal (Hill, 2016, p.64) and rebellion in punk (Ward, 2019, p.387).

Of community values, my virtual ethnography, particularly my survey responses (2019), revealed differing perspectives and value systems of synthwave artists. This concerned whether artists were classified as DIY and less popular or 'professional' and 'popular' (Survey, Anon, 2019). This conflict pervaded not only opinions of other synthwave artists, but opinions of self (of members' own identities). This was evident by some respondents' reluctance (or in some cases, refusal) to create synthwave art or music for fear of not having the appropriate skills (and not being considered 'professional') (Survey Anon, 2019). This suggests that members do recognise a set standard of synthwave music, as well as recognising that particular skills are required for creating it. One of the main reasons that synthwave can be considered a CoP is because these skills can be acquired, through community resources such as those named in Chapter 5: Synthwave Creative Processes. YouTube tutorials, Facebook groups and Reddit threads make up a large proportion of supportive resources for synthwave members, including computer and DAW recommendations, music theory resources, song writing and arrangement resources, mixing and mastering practice recommendations and synthesizer and sound design sources. What is significant about these resources is that they demonstrate an awareness of potential access restraints, and with few exceptions always include recommendations (of a plugin, DAW, software synth etc) of a free or alternative version e.g. software synthesizer Serum (paid version) and Vital (free version). These resources support a more inclusive community in terms of access (as far as is possible with an online music community), which form part of the community's values in creating art for passion and expression.

A screenshot of a YouTube comment. The comment text is "For those of you who don't have Xfer Serum, use Vital by Matt Tytel, it's a free alternative." The text is in a light blue font on a white background. Below the text are icons for a thumbs up, the number 2, a speech bubble icon, and the word "REPLY".

For those of you who don't have Xfer Serum, use Vital by Matt Tytel, it's a free alternative.

👍 2 💬 REPLY

Fig 9.1 [YouTube Screenshot] A comment on one of Ste Ingham's tutorial videos (Anon, YouTube, 2017).

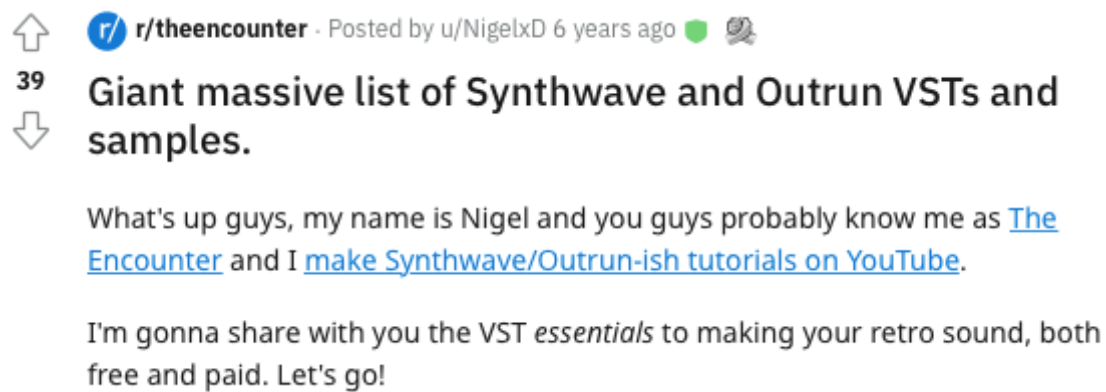


Fig 9.2 [Reddit Screenshot] 'Giant massive list [...]' (The Encounter aka NigelxD, Reddit, 2016).

[redacted]. Synthwave producers dont let some little ass bullshit elitist blogger discourage you from making music and having your voice heard. Get heard, play shows, spread art, be your #1 fan.

Fig 9.3 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).

Also, you are not a "terrible artist" if you are not The Midnight or Gunship, or whoever, and you do not produce in a "proper studio"

Fig 9.4 [Twitter Screenshot] A Tweet by a community member (Anon, Twitter, 12.2019).

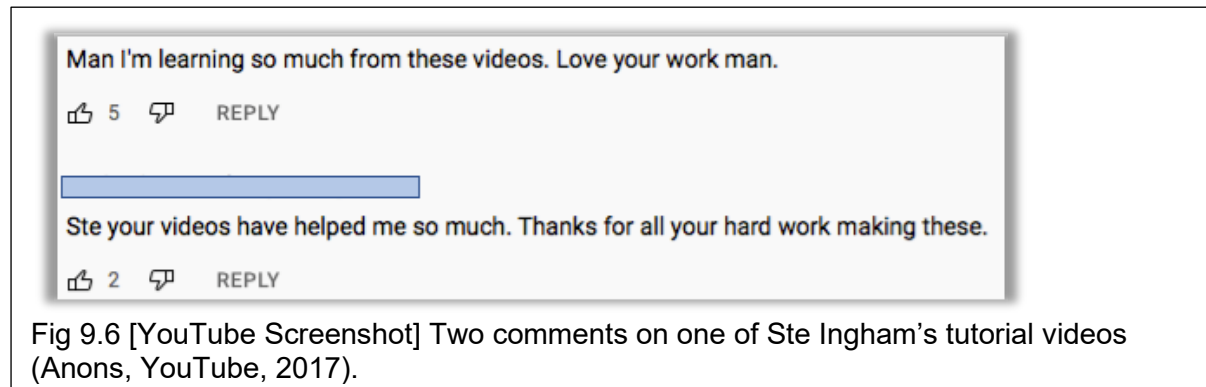
Another example in inclusivity of access is the language used by creators of community tutorials, such as those by Ste Ingham. His tutorials are highly praised within the community, and this is no coincidence given the creative and pedagogical approach he takes.

I really love how you keep things simple and explain things well. This is perfect for me :D

Fig 9.5 [YouTube Screenshot] A comment on one of Ste Ingham's tutorial videos (Anon, YouTube, 2017).

His approach caters specifically to newcomers in writing synthwave and does not assume any existing knowledge of music theory, song writing and arrangement or music production. He does not make specialist language the focus of his videos, instead teaching distinct components of the synthwave style (e.g. synthwave melodies, synthwave drums, synthwave basslines) with individual videos, using the piano roll on a DAW as his main teaching tool. Whilst this does assume some knowledge in operating a DAW, other community resources support this need, as do community adjacent YouTube tutorials for Logic, FL Studio, etc. In

his videos, Ste Ingham continually assures watchers that music theory is not a barrier to writing synthwave and provides clear alternate methodologies which get beginners started.



Synthwave artists themselves also create tutorial resources, such as those by Timecop1983 (Sonic Academy, 2015) and The Midnight (available through purchase from Sonic Academy).

It would be too generalised to suggest that all synthwave community members eschew professionalism, and such a statement would certainly be doing a disservice to the community and their work. My argument here is more about the emphasis the community place on experimentation, exploration and expression with synthwave music for meaning. A clear value of the synthwave community relates to creating music for passion, which 'de-territorializes' and 're-contextualizes' (Kaitajarvi-Tiekso in Bennett and Guerra, 2018) this activity as a risk free space to express oneself.

In addition to YouTube tutorials, Facebook groups and Reddit threads which support the creative endeavours of synthwave, community spaces also provide community members with a variety of non-musical and logistical skills in gathering resources for the creation and dissemination of their synthwave music. This includes support with selecting and installing a DAW, sourcing and installing plugins for creating synthwave on a DAW, signposting where to post songs for feedback from other community members, advising on the processes of submitting a song to a playlist curator, and more. Feedback from community members takes many forms, from comments within Reddit threads, formal feedback from playlist curators (such as Iron Skullet's 'Synthwave Retro / Electro' playlist) or platforms on web domains such as The Synthwave Charts. Other sources of support include members in synthwave Facebook groups, who may make their plugin patches available to other community members. With this inbuilt support permanently available within the community, synthwave's *community* dimension as a CoP is clear, and facilitates a continuous loop of learning and support, newcomer and mentor, experiencing and experienced. In a rather meta sense, the ability to learn is one of synthwave's values in itself.

9.3 Subcultural Capital and connections to the 1980s

Synthwave's *practice* dimension as a CoP (the shared repertoire or knowledge maintained by the community [Wenger et al, 2002, pp.28-29]) might be thought of as its subcultural capital, or its affiliated community knowledge of key artists, media and creative processes. Examples of the latter include media such as the *Drive* (2011) movie, the *Stranger Things* (2016-) Netflix series, The *Rise of the Synths* (2019) synthwave documentary, and individuals such as (and including the work of) John Carpenter (director and film composer for the Halloween franchise [1978-]) and Vangelis (film composer for *Bladerunner* [1982]). Each of these examples harbours some connection with the 1980s, for example the time setting of the 1980s in the *Stranger Things* (2016-) series, and implied time setting of the 1980s (or at least emulation of 1980s fashion, culture and imagery) in the *Drive* (2011) movie. The connection to the 1980s for *Bladerunner* (1982) and films of the *Halloween* franchise (e.g. *Halloween II* [1981]) relates to their (then) contemporary narrative settings in the 1980s.

As well as its narrative connection to the 1980s, the music of *Stranger Things* (2016-) also has more direct ties to the synthwave community, with the soundtrack having been written by synthwave group S U R V I V E (composers Kyle Dixon and Michael Stein). It follows that their creative process focused on synthesizers, though these were hardware analog subtractive synths rather than software plugin emulations. For example, Stein used a Jupiter 8 (1981) for the lead part of the *Stranger Things* theme¹⁰⁴ (a Jupiter 8 which he retrofitted with MIDI). For the main arpeggio line in 'Kids' (2016),¹⁰⁵ he used an Oberheim SEM Two Voice (1976). For the 'Upside Down' (2016)¹⁰⁶ theme, he used a Polymoog (1975) and ARP 2600 (1971). Stein spoke of the practical limitations of using hardware synths, where some of them did not facilitate sound recall. For this reason, he incorporated use of the Prophet-5 (1978) and Prophet-6 (2015) to the soundtrack, both of which have sound recall through patch memories (Betts, 2017). MIDI to CV/Gate converters were also used, since some of the analog synths used were pre-MIDI. Some of these practical limitations (in addition to cost, availability, storage, technical and operational knowledge) demonstrate why it is not necessarily common for synthwave community members to own original hardware synthesizers, and why software synthesizers (and emulation plugins) are more accessible to achieve these legacy synth timbres. It should be noted that the synthwave community's

¹⁰⁴ 'Stranger Things | Title Sequence [HD] | Netflix' is available from: <<https://www.youtube.com/watch?v=-RcPZdihrp4>> [Stranger Things, 2016].

¹⁰⁵ 'Kids' (2016) is accessible from: <https://www.youtube.com/watch?v=Ha2Ocl_OgtM> (Kyle Dixon & Michael Stein – Topic, 2017).

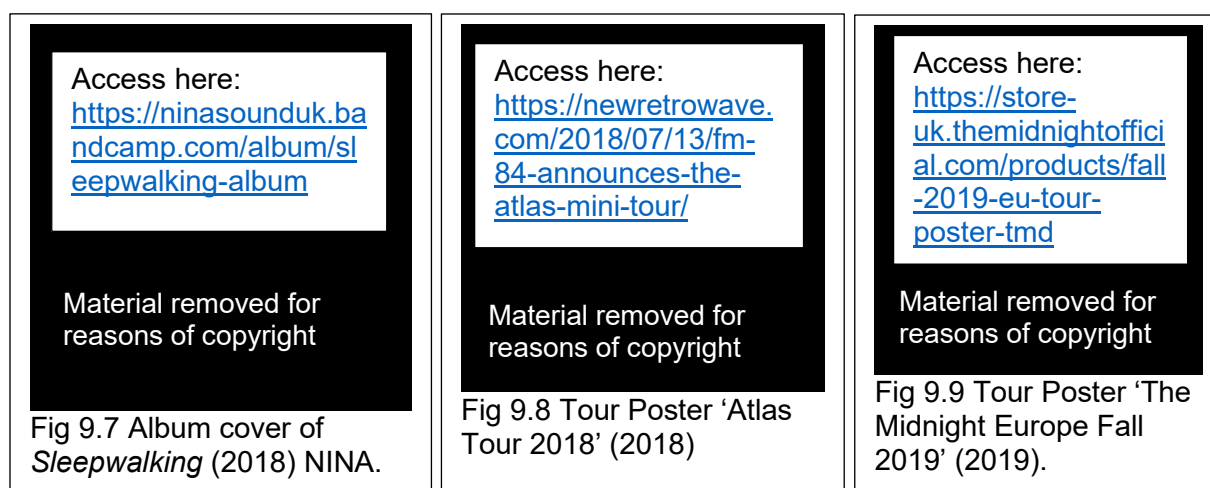
¹⁰⁶ 'The Upside Down' (2016) is accessible from: <<https://www.youtube.com/watch?v=vqffY-6OVKc>> (Kyle Dixon & Michael Stein – Topic, 2017).

creative focus on synths, samplers and drum machines from the 1980s era extends to music technology from other decades (e.g. the Oberheim SEM Two Voice [1976]) due to these items' legacy status within the synth domain and synthesizer history overall.

The *Drive* (2011) movie also has direct links to synthwave, since the soundtrack includes numerous synthwave artists (Kavinsky, Electric Youth, College). For the non-source music, score composer Cliff Martinez in fact used more virtual synths via a DAW instead of hardware analog synths: 'It's almost all software synthesizers [...] software emulations of vintage synthesizers from the 70s, like the ARP 2600, there's a software version of that [as well as] vintage software emulations of synthesizers from the [19]80s' (Hemsworth, 2016). Martinez felt that the score's cohesive and unified sound character contributed to the *Drive* (2011) soundtrack's success and popularity (Britt, 2019).

A key component of synthwave's subcultural capital is the community's nostalgia for a fictionalised 1980s, and as such subcultural capital derives heavily from components of this decade. With this, it follows that my survey responders referred to synthwave as a 'retro' or '1980s throwback' genre (Survey Anon, 2019), making clear synthwave's connection to this decade. A large number of survey respondents labelled synthwave as 'retro', a term which Reynolds described as a: 'self-conscious fetish for period stylisation (in music, clothes, design) expressed creatively through pastiche and citation' (Reynolds, 2011, p.xii). These responses synchronised with findings from my virtual ethnography, where synthwave artists include the 1980s in their name (e.g. Timecop1983, moonrunner83), as well as including technology from the 1980s decade in their name (e.g. FM-84, Rogue VHS).

Similarly, my data showed that synthwave song titles often reference songs from the 1980s, to strengthen links between the genre and this decade e.g. Roxi Drive's 'Run All Night' [2017] (similar to Cyndi Laupers 'I Drove All Night' [1989]) and JJ Mist's 'Test My Love' [2017] (similar to Taylor Dayne's 'Prove Your Love' [1988]). As one respondent neatly surmised, 'The music directly channels the tropes and themes of that time' (Survey Anon, 2019). This too recognises the fashion and visual art aesthetics of the decade, which respondents mentioned of 'letter man jackets', 'sunsets', and neon colour schemes (Survey Anons, 2019). Such imagery can be found prominently across artist fashion (shown through headshots, photos shared through social media, or in performances at live shows) as well as album artwork and synthwave graphics (examples are shown throughout Chapters 4-8, and a selection is demonstrated below with Figures 9.7-9.9).



My survey data also highlighted a privileging of older media formats such as VHS tapes, cassette tapes, vinyl and the Walkman – some formats of which are available to purchase at live synthwave shows, where artists sell their music and merchandise. Such formats (e.g. vinyl, cassette) are also sold online on synthwave artists' Bandcamp pages or artist websites, supporting this connection to the 1980s. Other technology noted in the survey was 1980s synthesizers ('Roland synths') (Survey Anon, 2019). Respondents remarked on how these timbres are used creatively in synthwave songs, but also politically, signifying a resistance to modern technology and technological progress. Of this, some respondents described a lack of privacy in the 'digital age', making a case for synthwave music as a form of 'escapism' (Survey Anon, 2019). The idea of 'hyper-capitalism' was also raised, with some respondents critiquing the 21st century more broadly (with fears for 'climate change' and uncertain times) (Survey Anons, 2019). Moreover, respondents criticised 21st century music, ('I was tired of today's music') (Survey Anon, 2019), suggesting synthwave's perceived originality or providing of a new style of music. Aptly, Hogarty recently (2016) suggested Millennials hark back to their parent's youth because they (Millennials), are: 'the generation born after the dissolution of certain mid-twentieth-century securities [such as] full-time permanent employment [and] affordable housing'. Hogarty also described how Millennials are the generation of: 'the free market, work-for-your-welfare, zero-hour contracts [...] and The X Factor' (Hogarty, 2016, p.85). She highlighted how Millennials envy the perceived authenticity of Baby Boomer and Generation X's youth music, which in their opinion, dealt more with 'political issues' (Hogarty, 2016).

A significant connection by the community to the 1980s decade is through the synthesizer itself, which is vital to the identity of the synthwave genre. As such, the genres' style parameters reflect capabilities or nuances of this instrument, notably of modular synths, analog synths, and digital synths. It should be noted that the synthwave community's creative focus on synths, samplers and drum machines from the 1980s era extends to music technology from other decades (e.g. the Minimoog or the ARP Odyssey of the 1970s) due to

these items' legacy status within the synth domain and synthesizer history overall. My analyses of works 'Back to You' (2018), 'Beyond Memory' (2018) and 'Diabolic' (2016) demonstrated how creative processes by synthwave creators' privilege 1980s aesthetics, through music technology in particular. For example, the use of LPFs are prominent – a technique which in the 21st century, is performable either through automation on the DAW or with LFOs on a (software or hardware) synth. Use of this technique by synthwave creators' mimics analog subtractive synthesizers which had low pass filter modules (which could alter sound through turning the low pass filter rotary knob), e.g. the Minimoog (1970), the Korg MS-10 (1978), and Yamaha's CS-80 (1977). Synth modules refer to the parameters or components that can be manipulated to produce different sounds on the instrument. The term emanates from 1960s modular synths, which used a form of subtractive synthesis, 'the technique of arriving at a desired tone by filtering waveforms rich in harmonics' (Vail, 1993, p.292). Whilst LPFs began in hardware form (on analog synths, controlled by knobs attached to potentiometers or rotary switches), microprocessor-controlled analog synths (e.g. the Korg DW-8000 [1985]) and digital synths of the 1980s (e.g. the DX7 [1983]) advanced this with rotary encoders or digital encoders.

When used within a synthwave track, LPFs often create sonic interest where synthwave basslines (which frequently utilise 8ths or 16ths *ostinati* patterns) would otherwise be musically repetitive, linked to their looped and diatonic natures. These types of basslines, again, are influenced by technology from the 1980s, namely sequencers (Vail, 1993, p.184). This is because, if unaltered, analog sequencers' internal clocks would run continuously, 'producing incessantly repeated patterns of eight-notes' (Pinch & Trocco, 2004, p.242). It is because of these technological nuances by key 1980s synths and sequencers that synthwave style parameters are like they are – they aim to emulate and communicate the sounds of the 1980s. In doing so, they recreate or re-imagine musical components from this decade, some of which were in fact impacted by technological progress at the time.

The rhythmic nature of synthwave basslines (8ths or 16ths) has an impact on chosen tempo for synthwave songs, and as such tempo is commonly set between 75-120bpm. Additionally, these tempi aim to semiotically simulate the idea of driving through a city at night, a common narrative in synthwave songs which is considered key subcultural capital by the community. This subcultural capital is communicated through imagery such as album artwork (e.g. Timecop 1983's *Night Drive* [2018]¹⁰⁷), music video (e.g. 'Fire in the Sky' [2021])

¹⁰⁷Timecop1983 – Night Drive [Full Album] available from: <<https://www.youtube.com/watch?v=f7Al63L2LzA>> (MrHajimeSaitou, 2018).

The Midnight¹⁰⁸), as well as being common to lyrical theme (e.g. ‘Synth City’ [2017] by Dana Jean Phoenix¹⁰⁹) and song title (e.g. ‘My Delorean’ [2019] by Primo the Alien).

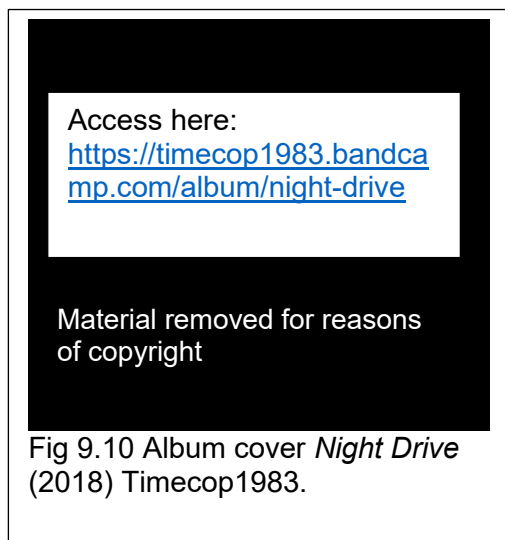


Fig 9.10 Album cover *Night Drive* (2018) Timecop1983.

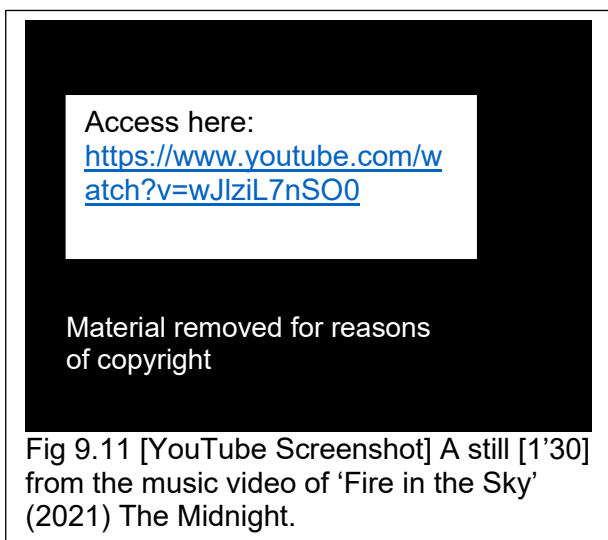


Fig 9.11 [YouTube Screenshot] A still [1'30] from the music video of ‘Fire in the Sky’ (2021) The Midnight.

Moreover, a search into YouTube for ‘synthwave night-time drive’ yields countless search results of synthwave playlists, many of which feature the image of a car driving through a night-time city.¹¹⁰

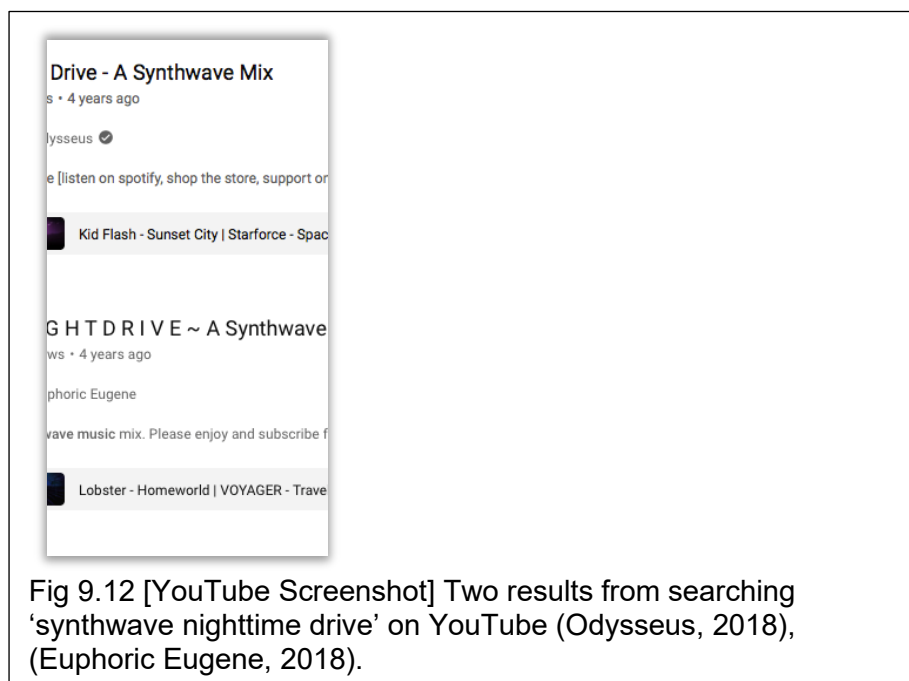


Fig 9.12 [YouTube Screenshot] Two results from searching ‘synthwave nighttime drive’ on YouTube (Odysseus, 2018), (Eurphoric Eugene, 2018).

¹⁰⁸ ‘Fire in the Sky’ Music Video available from: <<https://www.youtube.com/watch?v=ulZBakpF5l8>> (The Midnight, 2021).

¹⁰⁹ ‘Synth City – Dana Jean Phoenix’ available from: <<https://genius.com/Dana-jean-phoenix-synth-city-lyrics>> (Genius.com, 2023).

¹¹⁰ ‘Night Drive – A Synthwave Mix’ available from: <<https://www.youtube.com/watch?v=YP9nrR-ym3c>> (Odysseus, 2018), ‘NIGHT DRIVE – A Synthwave Music Video Mix [Chillwave – Retrowave]’ available from: <https://www.youtube.com/watch?v=mZvQ9ipTK_8> (Eurphoric Eugene, 2018).

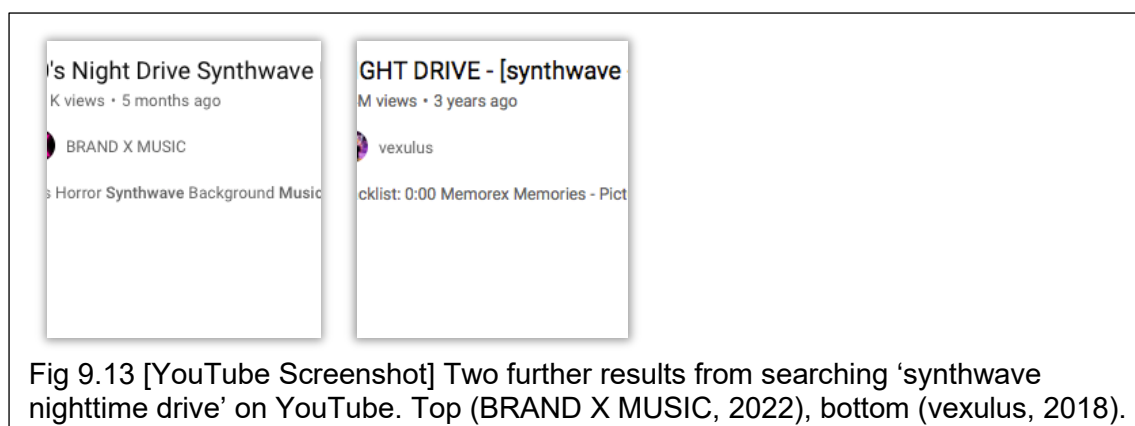


Fig 9.13 [YouTube Screenshot] Two further results from searching 'synthwave nighttime drive' on YouTube. Top (BRAND X MUSIC, 2022), bottom (vexulus, 2018).

Many of the driving at night references¹¹¹ in synthwave relate directly to the *Drive* (2011) movie, and particularly the first scene of the movie, which plays the song 'Nightcall' (2011) by synthwave artist Kavinsky over a clip of Ryan Gosling's character driving through a neon lit city at night.¹¹²

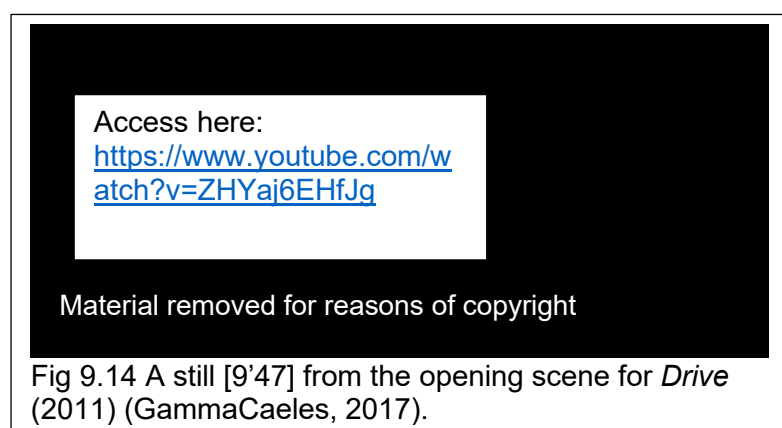


Fig 9.14 A still [9'47] from the opening scene for *Drive* (2011) (GammaCaeles, 2017).

The 'driving through a city at night' subcultural capital is not only implied and demonstrated through media e.g. songs and imagery, but discussed directly by community members (as shown in Fig 9.15).



Fig 9.15 [Reddit Screenshot] A Reddit thread within the online synthwave community (Anons, Reddit, 2023).

¹¹¹ '80s Night Drive Synthwave Background Music | Royalty Free No Copyright' available from: <<https://www.youtube.com/watch?v=N090Ycet4YU>> (BRAND X MUSIC, 2022), 'NIGHT DRIVE - [synthwave - chillwave - retrowave mix]' Available from: <<https://www.youtube.com/watch?v=QAhvvQQurw4>> (vexulus, 2019).

¹¹² <https://www.youtube.com/watch?v=ZHYaj6EHfJg> (GammaCaeles, 2017) 'Drive (2011) – Opening Credits Scene – Car Chase'.

Driving in a car at night harks back to particular media and pop culture of the 1980s, such as *Miami Vice* (TV show [1985], video game [1986]), a crime drama set in the city of Miami. Films such as *Bladerunner* (1982) are set in a city and take place at night. As such, the experience of driving in a car at night simulates the perceived feeling of being in 1980s (or the online synthwave community's version of the 1980s). Night driving was named by survey responders as one of the things they associated with synthwave, and this is an example of synthwave subcultural capital.

Other key style parameters of synthwave which demonstrate a privileging of 1980s aesthetics and links to 1980s music technology include use of programmed virtual drums. One such example is the Simmons SDS-V Drum Brain, a 1980s analog drum synthesizer heard on 'Back to You' (2018). Other popular drum machines include the LinnDrum, since these were extensively used on tracks across the 1980s.¹¹³ Synthwave songs also emulate mix styles from the 1980s, evident by the gated reverb on 'Back to You's (2018) snare. Use of the saxophone is also privileged by the community, at first for popularity as a solo instrument in the 1980s,¹¹⁴ but second due to the instrument's usage by high profile synthwave group The Midnight.

Finally, the use of suspended and seventh chords are prominent of synthwave, and relate to synthwave creators and listeners estimations of these chords dreamy qualities (which likely relate to suspended chords absence of the third, the defining note for whether it is major or minor. Suspended chords do not have thirds and as such carry an inbuilt ambiguous sound, which might be interpreted by some as semiotically dreamy). Seventh chords include the interval of a seventh (whether major, minor, dominant), and are generally 4-note chords, which may be interpreted as semiotically dreamy when in opposition to a 3-note triad chord. Use of these chords by synthwave creators is also related to emerging capabilities of synths in the late 1970s and early 1980s, when polyphony was advancing year on year. As polyphony advanced from 4-voice (e.g. the Juno 4 [1979]) to 6-voice (e.g. Korg Polysix [1981], the Juno 6 [1982]), musicians were keen to use multiple voices (notes) at once; having previously been restricted to either monophony (one note at a time) or 4-voice (which facilitated a three-note chord and one bass note). With 6-voice polyphony, one could play two notes in the bass and four notes in the treble (usually suspended or seventh chords, as opposed to 3-note triads). Because of this, songs from the 1980s (and particularly

¹¹³ Examples of LinnDrum patterns heard on 1980s songs are accessible from:

<<https://www.youtube.com/watch?v=ofKyPTXt5co>> (SynthMania, 2015).

¹¹⁴ Examples of saxophone solos in 1980s pop songs include: 'Rio' (1982) by Duran Duran, available from: <<https://www.youtube.com/watch?v=nTizYn3-QN0/>> (Duran Duran, 2018) (Accessed April 2023), 'Careless Whispers' (1984) by George Michael, available from: <<https://www.youtube.com/watch?v=izGwDsrQ1eQ>> (Georgemichael, 2009), Englishman in New York (1987) by Sting, available from: <<https://www.youtube.com/watch?v=d27gTrPPAyk>> (Sting, 2011).

on synths) would feature these types of chords. To simulate these kinds of polyphony (e.g. 6-voice), some virtual instrument emulators of 1980s synths have voice restriction settings (e.g. of 5-voice polyphony with the Repro-5 [by U-he], a Prophet-5 emulator). Given this, the use of seventh and suspended chords demonstrates another stylistic method used by synthwave creators to communicate an aura of the 1980s. These examples demonstrate the ways in which synthwave connection to 1980s' popular culture manifests musically, and with specific reference to 1980s music technology.

9.4 Tensions and Negotiations (Gender, Live Practices, Stylistic Practices)

9.4.1 Gender

One key issue or point of tension within the synthwave community is that of gender and representation by artists, particularly noted in my data about popwave and darksynth. It cannot be ignored that women (and non-binary artists) are less represented than their male counterparts within the community overall. Popwave is a unique subgenre in this regard, being highly populated by female artists. Nonetheless, my data showed that popwave artists commonly experience gendered practices through their work as topliners when collaborating with other synthwave artists. Whilst they choose to do these collaborations, and are typically credited accordingly, one negative instance was noted in my virtual ethnography, where one female artist's experience (Primo the Alien) with a male artist (Timecop1983) became problematic when role demarcation was miscommunicated and misunderstood (of 'My Delorean [2019]'). At the time, this incident was posted about very publicly within the community, and the situation did not appear supportive to female synthwave artists. In some ways, it appeared to support gendered notions of women as (solely) singers, rather than recognising their ability (here Primo the Alien's ability) as songwriters. Equally, when speaking of collaborations, popwave artists I interviewed illustrated some instrument performer role gender-bias, with most artists mentioning the instrumentalist (male) / topline writer (female) dichotomy of creative roles. This reflects feminist literature which describes historic gender norms of female artists as singers and male artists as instrumentalists (Kearney, 2017, p.119). Of Primo the Alien's situation, it is worth reviewing Kearney's documentation of traditional and systemic gender-specific personality traits. Here we see 'producer' under masculine traits, which might extend to song writing being considered a masculine rather than feminine trait.

Personality Traits	
Masculine	Feminine
strong	weak
active	passive
independent	dependent
autonomous	relational
rational	irrational/emotional
smart	dumb
technological	technophobic
productive	consumerist
cultural	natural

Fig 9.16 From Kearney, 2017, p.34.

My popwave interview data showed that role demarcation within bands or groups was less gendered, with an overlapping of creative roles between songwriter, performer and producer. At least half of the popwave artists interviewed reported co-producing, or producing their own music. Four popwave artists reported producing music entirely themselves, assuming all creative roles of songwriting, performing and producing. These instances show how female and non-binary artists are breaking the mould and changing the reputation of female and non-binary synthwave artists as singers only.

Other interesting themes from my data regarding gender included the support network of popwave artists. My popwave interviewees highlighted the positives in accessing and receiving female support within the community, expressing a comparable sentiment to that of the 1990s female Riot Grrrl movement. Where Riot Grrrl artists formed their own record labels (Kearney, 2017, p.82), my popwave interviewees described banding together to form an 'all female [...] lineup' (Hanley, 2020) for a live show.

Access here:

<https://www.facebook.com/ticketweb/photos/gm.905215939864180/10158866427654447>

Material removed for reasons of copyright

Fig 9.17 Poster for an all-female synthwave live show, which took place on September 2019 at the Knitting Factory in Brooklyn, New York.

In reference to the support network within the popwave subgenre, one interviewee (a member of Bunny X, one of the artists who played the show at the Knitting Factory) remarked that this was a necessity, hinting at the need for continued efforts to achieve gender representation in the synthwave community. Overall, the general theme of interview responses by popwave artists was that further progress is needed for the representation of female and non-binary artists within the synthwave community.

One popwave interviewee problematised the fact that synthwave emulates popular culture of the 1980s, suggesting that this supports the objectification and sexualization of female artists' images (suggesting the 1980s as a time when this was more acceptable). With synthwave being a 21st century online music community, this interviewee felt emulating values of the 1980s was a backwards step for women in particular. Nonetheless, some popwave interviewees recognised individuals outside of the popwave subgenre who are supporting a more inclusive community (such as music promoters, male artists and music reviewers).

Positively, comments made clear what progress has been made and tangibly explained how popwave artists are challenging these issues. For example, the 'all female [...] lineup' (Hanley, 2020) for a live show, and the numerous popwave interviewees who identify as music producers. This demonstrates a challenge to historical male gender roles within the music industry. Equally, there is a recognition that female and non-binary artists are not added to playlists as much as male artists, which allows for steps to be taken to challenge this. On the whole, comments indicated a path upon which women can continue to navigate and increase their representation within the synthwave community. Though never outright stated by interviewees, I argue that some of this progress has been made possible because of the popwave subgenre in particular.

As a caveat here, it should be noted that one of the most prolific popwave groups within the synthwave community has a male lead singer. However, their inclusion of multiple female artists within the group (across recorded and live settings as session musicians), as well as their having female support acts when touring (e.g. Violet Days, Primo the Alien), is positive and supportive of female artists. These female artists do not necessarily assume typically gendered instrument roles either (such as backing singer or singer only). When I watched The Midnight live (as reported in Chapter 8), I noted how their session singer Lelia performed bass and electric guitar throughout (challenging predefined gender roles of female musicians) (Kearney, 2017), as well as singing lead on multiple songs. Significantly, The Midnight are an extremely high profile synthwave artist, if not, one of the most recognised by the community. As such, their actions towards female artists are impactful, and in this regard, they demonstrate another bar of progress for female representation within the synthwave community by actively and publicly supporting their work. They set an

example which other synthwave artists can follow, as well as encouraging synthwave audiences to recognise and appreciate female synthwave artists.

My data with regards to the darksynth subgenre was less positive of gender representation, where I noted issues of visibility and recognition of female and non-binary darksynth artists. This was not immediately obvious to me (and nor was the gender representation of darksynth a specific research intention initially), until I noticed sometime into my data collection of interviews with darksynth artists that no women had been interviewed. On reflection, it also took a lot longer (and with a lot more dedicated searching) to source female and non-binary darksynth artists, which only added to my thoughts that these artists are less visible and recognised by the community. My data concluded that factors relevant to this are: a lack of representation in community resources, a (male) dominant narrative or perception of what darksynth should sound like by the community, and by extension of this, that female and non-binary artists' are more willing to use instruments not traditional to the dominant narrative of darksynth (leading to them being overlooked).

Examples of community resources not platforming female and non-binary darksynth artists included Cram's (2018c) and Freewave's (2018) darksynth articles. However, based on artist recommendations by these articles, I did find some female artists within the darksynth subgenre through their work as featured artists for male artists (e.g. 'Naked Tongues' [2012] featuring Isabella Goloversic and 'Awakening' [2019] featuring Glitbiter). Despite this, recommendations in these articles did not platform female or non-binary darksynth artists in their own right. It occurred to me that the dominant (male) narrative of darksynth may have in part formed from the subgenre's musical roots, of metal and horror film soundtrack. Both of these musics have historically under-represented women, and metal in particular is characterised for its masculinity (Bayer, 2009, p.17), with a 'centrality of the heavily distorted guitars', which are a '[phallic] symbol of masculine power' (Bayer, 2009, p.24). Of instruments and gender, some of my analysis of darksynth songs by female and non-binary artists revealed that in general, less guitar parts were featured, than are typically heard across darksynth songs by male artists (where the guitar is prominently featured rhythmically and melodically). I also noticed how female and non-binary artists were more willing to use instruments not typically heard in popular darksynth songs (by artists such as Perturbator, DwtD, Carpenter Brut for example), with many incorporating vocal parts (e.g. 'Essential Mist' [2015] by Kriстал Ann, 'Gone' by Sierra [2019], 'The Road is Found' [2016] by Rose Thaler). These instances led me to conclude that perhaps community members were not perceiving these songs as darksynth, and hence discounting that the artist themselves could identify as a darksynth artist. This was true also of my virtual ethnography, where one community member stated outright that they did not consider female feature artists on male darksynth artists' songs' as 'actual' darksynth artists.

Interview data from female and non-binary darksynth artists showed a mixed review of support by other male darksynth artists, with some positive (e.g. collaborations, or Surgeryhead's descriptions of support they had received from 'artists like Dan Terminus and GosT and Perturbator' [Surgeryhead, 2021]) and some less positive, '[darksynth] is definitely a male dominated subgenre' (Renee, 2021). I did notice that female artist Sierra was billed as having toured with Carpenter Brut in 2022¹¹⁵ (Whatthefrance, 2022), which is a similar notion to popwave artist The Midnight having toured with Violet Days or Primo the Alien, and hence positive. However, my experience when posting to Reddit about my female and non-binary darksynth playlist got a mixed response, with someone assuming that I, myself, was male (I was writing about darksynth, so I must be!), as well as responses that there was no place or need for these types of female-focused darksynth playlists at all. Overall, I would say that darksynth has certainly made less strides in terms of gender inclusivity than the popwave subgenre, and it is my hope that there will be significant improvements in the future. It appears to me that the vocal-centred popwave is somewhat aided by the fact that vocalists are traditionally and historically female, whereas instrumentalists (and especially guitarists) are traditionally and historically male (Kearney, 2017, p.119). In some ways, thinking of the popwave and darksynth subgenres of synthwave as analogous to the pop/rock dichotomy of the music industry is somewhat reasonable. Put another way, women and non-binary artists battle more "inbuilt" or systemic barriers (such as gendered instrument roles) with darksynth (and in the analogy, rock) than popwave (and in the analogy, pop).

9.4.2 Live Practices

Both of my concert ethnographies (of popwave artist The Midnight, and darksynth artist DwtD) questioned the extent to which synthwave's live music practices can be situated within the EDM tradition, a genre from which it has musical roots. I identified tensions with relation to this idea, in that despite synthwave's musical roots in EDM, community members' expectations of live synthwave align more closely with the rock tradition, and traditional band performances. Virtual ethnography data showed that markers of 'liveness' (Auslander, 2022) were expected by the community, such as the use of microphones for artists to speak or sing, and use of live instruments rather than triggered parts. This led me to consider that such an expectation might pose a barrier to synthwave artists going on tour, for fear of not meeting community expectations of a live synthwave performance. Equally, meeting community expectations might not be financially or logistically possible, if synthwave artists

¹¹⁵ Article available from: <<https://whatthefrance.org/sierra-supporting-carpenter-brut-on-his-world-tour/>> (Whatthefrance, 2022).

do not have the financial capital, or performance skills to tour. With this, I explored other barriers to synthwave artists touring, such as lack of musical material and having a specific artist creative vision (GUNSHIP's reason for not touring), and artist identity (Trevor Something's identification as a songwriter before a performer).

In reviewing all of these barriers to touring, it occurs to me that the synthwave community's expectations of live performances harbour a level of idealism that all artists are automatically performers, and live performers at that. There seems to be an assumption on the community's part that synthwave creators are inherently performers, despite it being known that synthwave creators' history lies in music production (and again, this is not to say that music producers cannot be performers, but that it is less traditional for this to be the case) and disseminating music on the internet. This is not to say that the synthwave community does not have talented performers, because it does (see The Midnight). However, in some ways, synthwave is not naturally poised for live performance, with reasons which range from: structural (some synthwave artists are lone-producers, or teams of songwriters rather than being bands, hence many session musicians would be needed to tour), financial (synthwave artists not signed to a record label where financial support for a tour might be available, or are not earning enough from record sales to tour as a DIY artist), and ideological (some synthwave artists have no want or will to tour for whatever reason e.g. they started their artist work on the internet, and that's where it stays). To clarify, I don't believe that community members assume performance skills of their favourite synthwave artists arrogantly, but rather, they simply enjoy synthwave so much that they want to see it live, just like any other artists they enjoy (outside of the synthwave genre) where this is available.

It is arguable, that if any, the subgenre popwave is most poised to be able to tour live, given the vocal-centred nature of this subgenre. In some ways, this fact alone affords a more traditional live performance setup, with a starting point of one individual singing at the centre-front of the stage. It might be for this reason that artist The Midnight decided to design such a live band style performance for their concerts, hiring more than one session musician for their tours, and as a result, treading a very fine line between an EDM performance and traditional band performance. It is also notable that The Midnight are an extremely high profile synthwave artist, if not the most prolific of all. It could be the case that they have set a precedent for the community, that it is possible to carry out a band style performance of synthwave. As such, those who perform live and do not follow The Midnight's blueprint might be considered to have, in some ways, failed to perform synthwave live. I considered this idea particularly when I saw DwtD's live concert, which I just didn't enjoy as much as The Midnight's performance. This is despite the fact that DwtD did have a session musician (their drummer), and the two group members did play their instruments

(guitars) live. But their realisation of the synth parts were all set to track (except for some root note triggered arpeggios at one point), and for me, this was disappointing. Synthwave is about synths, and I expected these parts to be performed live in some capacity for that reason. I was not expecting original hardware 1980s Roland synths, but simply the presence of synths (in any physical guise technologically speaking), performed faithfully as part of the set just as any other instrument was (e.g. guitar, bass). Whilst I am aware of DwtD's history in metal bands, and know that they have experience as performers in this regard, my perception of their live performance of synthwave was that it didn't quite hit the mark. It would appear that, like other community members, I too have formed live performance expectations of synthwave as I have engaged with the genre over time. Moreover, as a performer myself, I am probably a little biased in this regard.

9.4.3 Stylistic Practices

My point about DwtD's performance leads me onto another tension within the synthwave community, of labelling and identification. For example, my virtual ethnography demonstrated that the term darksynth to describe DwtD is more a community label, in a "bottom up" sense, rather than DwtD self-identifying as this. This is also evident from interview comments by DwtD, of struggling to term their sound in particular: '[Justin has always said] let's say EDM to simplify it [...] I've always liked [...] Justice and Daft Punk; but also John Carpenter and [...] Hans Zimmer' (Vehling, 2019). Here Tony recognises the multiple influences heard in their music and accepts the problems this causes with style-terming. Often synthwave artists will self-identify as synthwave, or darksynth (etc) through their social media or Bandcamp pages, and upon checking these sources I found that the terms synthwave and darksynth were nowhere to be found on DwtD's Bandcamp or Twitter (as of March 2023). Yet these terms are continuously used by the community to describe them. Interestingly, DwtD member Justin (Pointer) denounced any affiliation with a 'scene' (possibly referring to the synthwave community) in a 2015 interview, 'As far as our roles for the scene I'm not too concerned about trying to make an impact on any particular scene. We just want to make some good tunes' (Magnetic, 2015). It would appear that both the metal scene and synthwave community have gravitated to DwtD and their music over time, and that it was the latter who attached the darksynth label. It is possible that DwtD allow their constant categorisation as darksynth for the sake of not alienating a whole section of their fanbase. It is also possible that their stylistic influences of EDM and soundtrack music (notably horror) are more coincidental than in reference to synthwave subcultural capital.

One stylistic tension or practice frequently debated within the community is the synthwave bassline, which commonly is voiced by a Korg Polysix ('Fat Line Bass' patch).

This practice is now so well known that many synthwave creators consider it unimaginative, yet ironically, others require it as a moniker of synthwave (due to its high recognition). A similar idea was described by Lysloff of mod composer samples, in that ‘novice composers are often ridiculed for using samples that have become hackneyed as a result of their popularity, and they [composers] are thus motivated to come up with unique sounds (or at least find less widely heard samples) for their music or to use well-known sounds in new and more interesting ways’ (Lysloff, 2003, p.251). This stylistic tension demonstrates the fine line in identifying ones track as synthwave and still being able to innovate it – there is always the risk it will be too innovative (i.e. has strayed too far away from synthwave) to identify as the style at all.

Two other relevant debates with relation to stylistic practices are of GAS (Gear Acquisition Syndrome) and sound design. The community has a diversity of synthwave creators (in terms of creator role or specialism, e.g. songwriter, producer, performer, DJ, etc,) and some prefer presets, whilst some invest more time into sound design and create sounds “from scratch”. A common argument, or sometimes, level of jest by those who prefer presets and tweaking presets (rather than building sounds from raw saw waves etc,) is GAS (gear acquisition syndrome). The phenomena is described as: ‘a complex cultural practice [within] popular music’ (Herbst and Menze, 2021, p.6) which involves ‘a pronounced interest in music equipment, combined with a [...] desire to acquire and possess certain items of gear’ (Herbst and Menze, 2021, p.14). To some extent, it can be argued that synthwave community members experience (or even simply express) GAS to profess an identification with the genre conventions of synthwave. Even if they don’t have GAS, saying they do supports their identification with the style. Such motivations are ‘cultural, social and psychological’, and pertain to key components of ‘a player’s identity’ (Herbst and Menze, 2021, p.17). By extension of personal identity, they meet genre conventions and sustain community interests and membership.

Chapter 9 Conclusion

This chapter has discussed key themes of the thesis (Genre Formation, Community Identity, Values & Practices, Subcultural Capital and connections to the 1980s, Tensions & Negotiations) reflecting on findings from Chapters 4-8. In doing so, I have synthesized data from my ethnography (concert ethnography and email interviews), virtual ethnography and autoethnography, to demonstrate the online synthwave community’s genre formation and position as a CoP. Key issues demonstrated included the community’s terminology to describe synthwave (genre, scene, community), and ontological and epistemological issues with subcultural and post-subcultural terminology to describe synthwave. Community identity

markers discussed included the synthesizer, as well as nostalgia for and relationship with the 1980s decade, Synthwave values were discussed with reference to access and inclusivity of community resources, which are available to (new and existing) members to create synthwave music. Synthwave practices were discussed with relevance to creative process, including how musical and subcultural connections to the 1980s are privileged and realised. Negotiations and tensions discussed included issues of gender (highlighting the position of, and progress made, with regards to female and non-binary representation), live music practices (situating synthwave's live performance practices within EDM and rock) and stylistic practices (of subgenre identification, creativity and GAS).

Chapter 10: Conclusion

With ethnography, virtual ethnography and autoethnography (including artefacts e.g. compositions and audio experiments), this thesis has explored the genre formation of synthwave, including its stylistic and cultural tenets. It has investigated synthwave's position as a genre within the context of Web 2.0 and 3.0, and its ecosystem as an online music community which operates as a community of practice. The aims of the thesis (stated in Chapter 1) were as follows.

The first was to investigate the musical and music technology parameters (termed as 'style parameters') of the synthwave style, including an assessment of how they are realised, recognised and valued by the online community. This was achieved through two objectives: through my own creative practice (autoethnography) and participant observation of the online synthwave community (virtual ethnography) where I both analysed and created audio recordings of the synthwave style to interrogate its key style parameters. In doing so, I examined the community's engagements with music technology specifically. A total of 9 musical works (including compositions, remixes and collaborations) and 10 audio experiments (SP1a-5) (autoethnography) accompany the thesis as appendices, and are considered artefacts of my virtual ethnography. My second objective was to conduct email interviews (n=70)¹¹⁶ and one online survey (n=94), to inform of style parameters and their nuances via community definitions. In doing so, I also revealed style parameters' contextual and historical significance with reference to 1980s music technology.

My second aim was to examine the ecosystem of the online synthwave community and its genre formation. This was achieved through three objectives. Firstly, with virtual ethnographic fieldwork, email interviews and online survey data, I interrogated the online synthwave community's genre formation and subcultural capital, examining facets of their community identity. This included community activities, spaces, values and practices but focused also on their connection to 1980s' popular culture, and their engagements with music technology (specifically virtual synthesizers) to formulate a musical and community identity. Secondly, I used virtual ethnographic fieldwork, email interviews and online survey data to critically assess tensions and negotiations observable within the outputs, interactions and discourses of the online synthwave community with relevance to their genre formation and community identity (e.g. knowledge legitimisation, community demographics, issues of style authenticity). In doing so, I considered the online synthwave community as a community of practice. Finally, through two concert ethnographies, I observed and

¹¹⁶ 70 interviews were conducted in total and 57 synthwave artists were reported on and are listed in the 'Interviewees' appendices section).

investigated synthwave practices in a live setting. This conclusion chapter reviews the thesis aims, states my original contribution to knowledge, concludes my research findings and makes recommendations for further research.

10.1 Original Contribution to Knowledge

My 5-year and 6-month (September 2017-March 2023) ethnography of the online synthwave community is the first of its kind, documenting the cultural and stylistic parameters of this genre. At the time of writing (March 2023), it is the first ethnographic account of the online music community within academia, including that this was a longer term, sustained study, by a composer and performer. As I stated in my literature review, no peer reviewed primary research of synthwave exists to date. My literature review noted only three undergraduate theses (Kataja, 2017;¹¹⁷ Miranda, 2018;¹¹⁸ Hornyak, 2019¹¹⁹), one MA thesis (Kraujalis, 2020¹²⁰), one contribution to a book series (Sora, 2019), one article with a partial mention of synthwave (Ballam-Cross, 2021), and one conference paper (Merlini, 2020¹²¹). Nearly half of these examples are outside of the English language, and all use secondary research predominantly (with two examples of non-peer reviewed undergraduate theses where a small number of compositions and graphic illustrations were created, respectively [Kataja, 2017; Miranda, 2018]). My research of synthwave is the first to consider its emergent genre formation since the mid 2000s, as well as the first to give specific consideration to synthwave as an online music community, and community of practice.

This research has made significant contributions to the study of music community in the 21st century on a macro scale (the synthwave community's ecosystem), with a longer and sustained timeframe (5-year and 6-months), and within the context of Web 2.0 and Web 3.0. It has demonstrated how an emic researcher of an online music community might conduct a study of this scale, including: ethical concerns of methodology (practices in observing virtual spaces, navigating researcher identity and participant identity), forming and presenting credentials that sustain access to an online community and its members, documenting and analysing data from different forms of virtual and digital methods (Caliandro, 2015, p.667 in Denny et al), and representing the voices of individuals (a

¹¹⁷ Original language is Finnish. Available from:

<https://www.theseus.fi/bitstream/handle/10024/127262/Kataja_Arttu.pdf?sequence=1>.

¹¹⁸ Original language is Portuguese. Available from:

<https://repositorio.ufrn.br/bitstream/123456789/38080/1/RelacoesEntreImagemMusicaEletronica_Miranda_2018.pdf>.

¹¹⁹ Original language is German. Available from:

<<https://kups.ub.uni-koeln.de/53592/1/Anytimebutnow2019.pdf>>.

¹²⁰ Original language is Lithuanian. Available from: <<https://gs.elaba.lt/object/elaba:62219318/>>.

¹²¹ Merlini (2022) Available from: <<https://bit.ly/3fKwG1p>>.

polyvocal narrative strategy [Rice & Ruskin, 2012 p.314]) in an ethnography. Of the latter, this (polyvocal narrative strategy) operated alongside, and in dialogue with, the researcher, who was a participant observer and full member. This research has also demonstrated how genre formation can be investigated on the internet, and particularly those genres which have formed (or were “born”) on the internet. Further examples of such genres that I would recommend include lo-fi (Wang, 2020) and vaporwave (Glitsos, 2018). As we progress further into Web 3.0 as a society, I predict further examples will emerge.

My research has contributed to research areas of popular music, musicology, ethnomusicology, practice research (specifically music composition and music production) and (within the scope of a music genre, by identifying issues of gender and inclusivity) feminist scholarship. My position as a composer with a background in music production enabled a more insightful analysis of the sound aesthetics and creative processes of the synthwave style, as I was able to interpret the music production mix alongside other musical components. This addresses gaps in literature where songs’ musical components are privileged over the sonic artefact or the recording (Bennett, 2019, p.133). My background in music production also supported my ethnography, enabling me to interpret discussions taking place within the synthwave community about relevant music technology, and the music production practices of synthwave. This was aided by my emic position within the community as a performer, composer and musician, which enabled my continued access to its members, discourse and development. My position as a music performer and musician (with a background in live performance) is also relevant. My knowledge and experience of live music practices allowed for a more nuanced understanding of synthwave live performance practices, relevant of (though not limited to): methods of music mediation (i.e. parts mediated by music technology, such as those set to backing track or triggered), choices in stage set up (including instrument and performer positioning, stage design, etc), performance gestures (such as expressive physical movements, or non-verbal communication between performers) and performer skills (in musical instrumentation).

My position as a feminist (and to some extent, my own gender as a woman) is also important to this research. Women are underrepresented as users of technology such as synths and DAWs, and certainly in the domain of music producers. Throughout the research for this thesis, there were moments when I experienced first-hand some of the challenges faced by women in the online synthwave community, for example when members of a darksynth subreddit assumed I was male. Though my findings about gender were largely unintended (and only represent issues of gender within the scope of a music genre), such issues represent some of the tensions and negotiations present within the community, which were relevant components of the research overall. As such, my axiological position was key

to this research, and ultimately shaped its findings. The research was conducted through, and can be viewed through, the lens of a female composer, performer and musician.

10.2 Genre Formation of Synthwave (Aim 2)

Chapter 4 presented a historic overview of the synthwave community, plotting key developments such as: synthwave music for synchronisation, synthwave style parameters and subgenres, key figures of synthwave (e.g. Rick Shithouse, Iron Skullet) and key creative and linguistic practices of synthwave. In doing so, I explained the community's progression since its formation in the early 2000s, which was musically influenced by EDM, 1980s synthpop (Vincenzo Salvia, 2018; Anon 7, 2019) and 1970s and 1980s soundtrack music such as the work of John Carpenter [the *Halloween* franchise] and Vangelis [*Bladerunner* 1982] (Mike Langlie, 2019; Anon 6, 2019). Key milestones of the community include the *Drive* (2011) movie, which contributed to the formation of synthwave style parameters, as well as having popularised synthwave, which resulted in the expansion of the synthwave community with relation to the number of members. Later milestones included the *Stranger Things* (2016-) Netflix series (with soundtrack written by synthwave group S U R V I V E), which contributed to synthwave's recognition mainstream (i.e. outside of the community). Additionally, synthwave's discourse was being shaped more formally by documentary maker Ivan Castell, who directed *Rise of the Synths* (2019), a documentary which sought to establish synthwave as a genre and movement. It was narrated by film composer John Carpenter, and featured interviews with synthwave artists who described their journeys with the style.

During the late 2010s, negotiations within the online synthwave community were rife, and one individual in particular (Iron Skullet aka Preston Cram) had a hand in this narrative in the latter half of this decade. Through his work as a playlist curator, discussions were prompted about what was and wasn't synthwave, and numerous blog articles (e.g. by Cram [2018-2019], Solaris [2018] and more) and websites (e.g. Freewave [2018], The Synthwave Charts [2019]) were circulating within the community, also contributing to this discourse. These sources aimed to establish synthwave subgenres, name indicative stylistic parameters of synthwave, and reference example artists believed to fit the style.

Key to understanding synthwave style parameters are the backgrounds of creators within the community, many whom emanated as primarily music producers or electronic (DAW) composers. Such creators do not necessarily have skills in music theory, or traditional performance skills with musical instruments. It should be noted that some creators do have these skills, but my point here is to highlight how synthwave's musical roots in EDM led to the role of the producer being more common to synthwave creators. This also harks

back to the grass roots of what became the online synthwave community – the popularisation of Rick Shithouse’s blog (considered the only synthwave blog in the community’s formative years), which platformed ‘[19]80s-inspired synth releases’ by independent music producers (RS, 2019). Alongside the move from ‘synth releases’ to synthwave (a name that stuck), this blog led to more producers and aspiring producers alike to begin to identify with and engage with synthwave. This set a precedent for the default position of synthwave creator to be a producer (though in time this expanded just as synthwave subgenres did, discussed shortly alongside live synthwave practices).

As per practices of the music producer, community resources in tutoring the stylistic practices of synthwave are DAW and music production focused. Such resources have continually existed within community spaces to support the needs of new and emerging community members, with key individuals who created these being Ste Ingham and The Encounter. Synthwave artists themselves have created tutorial resources for new and emerging members to use, such as those by Timecop1983. These tutorial practices have had two significant impacts on the community; their impact on the negotiation of synthwave subcultural capital, and their impact in sustaining the community’s very existence. With these resources, new members can access creative knowledge required to engage with synthwave, producing a continuous loop of learning and support, newcomer and mentor, experiencing and experienced. This practice means that synthwave has not died out since its inception in the early 2000s. This also means that even if older or original members of the community have left, newer ones have replaced them. Synthwave as a genre has continually grown with these practices in mind, and along with it, the boundaries of what constitutes synthwave have shifted over time. Despite these shifts, as we approach the mid-2020s, synthwave’s sonic and stylistic tenets are now much more solidified than in the early-to-mid 2010s. As such, artists and audiences alike are more confident in identifying synthwave music. This is due to a number of factors; such as the continued success of synchronisations to television and movie media, the undertaking of live tours by synthwave artists, and the general passing of time (more than a decade) within the community which has seen members finesse the identity of synthwave. As I finalise my PhD in 2023, I have met so many more people offline (“in real life”) who know about synthwave, compared to when I began my journey in 2017.

The commonality of the synthwave creator as producer is evident in synthwave music releases, particularly of the commonality in releasing instrumentals and remixes. With relation to the community, it is a common practice for synthwave artists to remix each other’s music, as well as for synthwave artists to remix songs of the 1980s to support their subcultural capital (which privileges this decade). Examples of the former include NINA and Essenger’s (2020) cover of Kavinsky’s ‘Nightcall’ (2011), and of the latter, GUNSHIP’s

(2018) cover of Cyndi Lauper's 'Time after Time' (1983). Instrumentals were the most common format of synthwave songs during the 2000s (through its roots in EDM and soundtrack music), with this expanding in the 2010s alongside the establishment of new synthwave subgenres such as popwave and darksynth. Through these subgenres, new practices of synthwave emerged, and these practices developed in part due to the new and differing backgrounds of musicians, performers and producers who had begun to engage with the online community since the release of *Drive* (2011).

These new practices included those with backgrounds in music performance, such as artists who are considered part of the popwave subgenre (discussed in Chapter 7). Example artists include The Midnight, NINA and Bunny X, and in particular, Chapter 7 noted how the popwave subgenre is uniquely represented by female and non-binary performers. The chapter also demonstrated some of the ways in which the lack of women and non-binary artists operating within the synthwave community overall has been challenged, revealing how the popwave subgenre in particular has given these groups more visibility and enabled them further access to the community as a whole. One of the ways in which improved visibility has been achieved is through live performance, with groups of popwave artists banding together to put on 'all female' (Hanley, 2020) synthwave shows. Critically, their performance skills are an advantage over other non-performing synthwave artists, allowing them the opportunity to tour more traditional performances without the need for setting parts to track or doing DJ sets. The visibility of female and non-binary artists has also been supported by male artists within the popwave subgenre, as seen in my concert ethnography of The Midnight. Their support act, Violet Days, is female, and The Midnight themselves included a female singer-bassist-guitarist as part of their band arrangement and live performance. As well as being considered popwave, The Midnight are an extremely high profile synthwave artist within the community overall, and as such, their support of female creators is significant and impactful. On the whole, the popwave subgenre is the closest to revolutionising synthwave to be a more inclusive style of music.

My concert ethnographies of The Midnight (a popwave artist) and DwtD (a darksynth artist) showed different synthwave touring practices, as well as revealing which mode of performance appears to most authentically represent synthwave in the community's estimations. Through my virtual ethnography (and supported by my own experiences watching synthwave live shows) I found that community members view the traditional live performances such as those by The Midnight as more successful in realising synthwave live. This is as opposed to performances which mirror more of a DJ set, or present as a live gig but then have a significant amount of parts to track, such as was the case for DwtD (concert ethnography in Chapter 8). I was particularly intrigued by these findings, that synthwave's recorded values are so closely linked to EDM, but synthwave live practices are instead held

to the standards of rock aesthetics, i.e. a live band performance. It occurred to me that community members really do view synthwave as a real genre like any other that they like (be it metal, funk, jazz, [Top 40] pop, etc), and it is for this reason that they form live expectations of synthwave all the same. Put another way, though synthwave was born on the internet, members do not consider it in any lesser sense in terms of value, i.e. they do not consider it an internet genre if in an othering way. Synthwave is as real and valid to them as any other genre of music, be it rock, pop, metal, jazz and so on.

Through the live synthwave practices component of my research, I uncovered barriers to synthwave artists in performing live, such as performer ability and confidence, artist financial capital, artist creative vision, artist identity and choice. Not all of these barriers apply equally (and the last one listed isn't really a barrier, it's a choice). Of my own observations, it occurred to me that performing (the instrument) synth live is particularly vital to synthwave, something that was not always the case in practice. My virtual ethnography showed similar sentiments about using and performing with instruments live in the traditional way. One artist whom I observed in a live setting, The Midnight, showed a high level of performer ability during their show, and included multiple live synths played by numerous performers. I believe this focus on synths in particular, supports the group's performance as representative of the synthwave style. I also believe it sets a precedent of what live synthwave performances should be in terms of the community's expectations.

Comparatively, (and speaking as a singer and synth player myself), I was disappointed by the lack of a synth player in DwtD's performance. Though they had one synth onstage, nearly all of the synths in DwtDs songs were set to backing track, and the live synth rarely used. The group had hired a live drummer for the show, but not a designated synth player. With this, I perceived the performance as "less" synthwave, despite my awareness that synthwave artists are commonly producers and may not have live performance skills by default. In this sense, perhaps the chosen performance mode (i.e. only one live synth which functioned more symbolically) was in fact in line with practices of synthwave, and The Midnight's performance mode actually less common. This does not change community opinion or expectation however (see Figures from Chapter 8), which express a preference for use of instrumentation to be live and traditionally performed.

However, of live practices, artist intent is important, and it should be noted that The Midnight identify strongly with synthwave (viewable by their online socials for example, which cite the term synthwave and hashtag #synthwave regularly). Furthermore, they recognise the online music community: 'we wrote an EP and said well that was fun [...] then you guys wrote us (and hounded us!) on the internet and we had to write more!' (Tyler Lyle, onstage in Manchester at the Albert Hall, 2019). This is not the case with DwtD, whose social medias do not cite synthwave (or darksynth) anywhere by them, and in a 2015

interview, member Justin (Pointer) denounced any affiliation with a ‘scene’ (likely referring to the synthwave community), ‘As far as our roles for the scene I’m not too concerned about trying to make an impact on any particular scene. We just want to make some good tunes’ (Magnetic, 2015). Given this, it is evident that DwtD’s priorities are not aligned with identifying with an online music community such as synthwave (or even the style in a purely sonic sense). Rather, DwtD place their priorities in the creative task of writing and performing music more broadly. Despite this, fans continue to categorise them as synthwave, and they are considered a cornerstone of the darksynth subgenre. These instances are interesting cases which demonstrate the acceptance or resistance by artists of “bottom up” categorising by the online community.

Whilst the community does recognise a number of high-profile artists e.g. The Midnight, GUNSHIP, NINA, not all synthwave creators strive for this sort of fame. Chapter 4 made clear some of the values of synthwave as a mode of expression, in that creators do not necessarily strive for the success, recognition or status of a professional. Whilst some do strive for commercial success or otherwise, some simply enjoy being part of a community of music appreciators and music creators. They relish in sharing their creations with other like-minded members, and enjoy developing their skills as a producer, composer, performer through the synthwave genre. This is an important point in itself – creators of synthwave have a diversity of skillsets, with any level of music theory, music performance, music composition, music production etc, through any range of means (whether auto-didactic, formally educated, etc). This is particularly true of the late 2010s, where the default position of synthwave creator as music producer had expanded alongside new members, new synthwave subgenres and new opportunities in live synthwave performance. This is the main reason why this thesis adopted ‘synthwave creators’ in favour of synthwave composers, synthwave musicians, synthwave bands, synthwave artists etc – since it would not accurately represent the skillset from one synthwave creator to another.

10.3 Stylistic Parameters of Synthwave (Aim 1)

[From Chapter 4] Table 4.2 Synthwave Style Parameters	
Style Parameter	Description
SP1a	<i>Ostinati</i> or ‘Sequenced’ Synth Bass (8ths or 16ths)
SP1b	Drone Bass
SP2a	Plucky Arp
SP2b	Brassy Arp
SP3a	Detuned Saw Lead

SP3b	FM Bell Lead
SP4a	Lush Moving Pad
SP4b	Brass Pad
SP4c	Synth Brass Stabs
SP5	Four-to-the-floor Drums
SP6	Saxophone solos
SP7	Electric guitar melodies
SP8	Spoken monologues
SP9	Use of vocoder
SP10	Movie style sound effects

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To investigate the stylistic parameters of synthwave, I conducted experiments in the synthwave style (autoethnography) which are considered artefacts of my ethnography. These methods allowed me to not only identify and explain the style parameters of synthwave, but to experiment with these through music composition. This enabled me to examine the significance of each parameter, as well as to test their limits. The style parameters listed above are derivatives of synthwave's core style components, known as beats, bass, leads, pads, arps.

Bass

Of synthwave basses, I explored two types: SP1a and SP1b. The former is more core synthwave, whilst the latter more relevant to the darksynth subgenre. In particular, my research indicated that SP1a is commonly performed by a plug-in version of a Korg Polysix, specifically the patch 'Fat Line Bass'. Rather than use a plug-in Korg Polysix for my SP1a audio experiment, I decided to test the parameter's limits by experimenting with a Prophet-5 V synth which imitated some of the Korg Polysix's sonic characteristics (such as its sound envelope or ADSR). As such, it became clear to me that the level of 'pluck' described by the community of the synthwave bassline (SP1a) relied mostly on the decay settings of a synths' VCA. I found that the synthwave bass drone (SP1b) was less common to all synthwave subgenres and more prevalent of the darksynth subgenre. However, its usage overall aims to semiotically signal the sort of bass drones heard in *Bladerunner* (1982), which in large parts was voiced by the CS-80. This film is considered key subcultural capital of synthwave, due to the film's temporal narrative in the 1980s, and the film's composer being Vangelis, who is highly respected by the online community for his work with synths and soundtracks.

As such, my experiment with SP1b used Arturia's CS-80 as a starting point for creating a synthwave bass drone, and was later used in my composition experiment 'Drift' (2019). I found in particular, that the use of a sub oscillator (synced to tempo at 1 bar speed) modulating the two oscillators supported the drone's growl or throbbing qualities (as described by the community). This is in addition to SP1b typically being singular notes (meaning whole notes or longer duration notes usually). Example synthwave tracks with SP1b include Kavinsky 'Nightcall' (2011) and Rose Thaler 'Standing in the Dark' (2020).

Overall, my virtual ethnography showed that popular choices for synthwave basses are Korg synths (e.g. the Polysix), the Prophet-5, the CS-80 and Yamaha's DX7. This relates to popular usages of these synths from the 1980s, a decade which the community privileges. The Prophet-5 was a popular choice for basslines in the 1980s, heard for example on 'Africa' (1982) by Toto and 'Time After Time' (1983) by Cyndi Lauper. The DX7 bassline can be heard on Cyndi Lauper's 'Change of Heart' (1986) and Tiffany's 'I Think We're Alone Now' (1987). The latter of these examples demonstrates the *ostinati* 8ths and 16ths heard in synthwave basslines (SP1a), which mimic songs of the 1980s which used these patterns. Such patterns were in part due to capabilities of sequencers in the 1980s, which if unaltered, would run continuously, 'producing incessantly repeated patterns of eight-notes' (Pinch & Trocco, 2004, p.242). It should be noted that my comment here does not argue technological determinism, but rather highlights one of the ways in which the synthwave genre conveys its connection to the 1980s. My analyses of synthwave songs demonstrated these types of basslines, including NINA's 'Beyond Memory' (2018) with 16ths, DwtD's 'Diabolic' (2016) with 16ths, and Timecop1983's 'Back to You' (2018) with both 8ths and 16ths. All three of these songs have a Korg Polysix style of bass, with DwtD's 'Diabolic' (2016) having a slightly more distorted timbre (given this group's position in the darksynth subgenre of synthwave, which is metal influenced).

Arps

Of synthwave arps, (SP2a and SP2b), I noticed two common occurrences for their timbre, described commonly by community members as 'brassy' or 'plucky'. The brassy arp required different ADSR settings, namely that the decay, sustain and release were significantly altered. It became apparent from viewing tutorials within the community that arps have a minimalist nature (often comprising of 3-4 notes) and generally move in one direction regarding melodic contour. My composition experiment 'Drift' (2019) noted the somewhat restrictive nature of this, especially when I was performing the arps physically onto a MIDI keyboard rather than drawing notes in on the DAWs piano roll (as is usually the case with tutorials of synthwave arps, e.g. Ste Ingham, 2017c). I also noted in my composition

experiment how the arp can take the role of lead synth, or alternate being the lead with another distinct lead synth. An important component of synthwave arps is the use of LPFs or HPFs, which can be applied through DAW automation or through LFOs which modulate the VCF of a synth. Use of this technique mimics analog hardware synths which had low pass filter modules (which could alter sound through turning the low pass filter rotary knob), e.g. the Minimoog (1970), the Korg MS-10 (1978), Yamaha's CS-80 (1977).

My virtual ethnography found that synth emulations chosen for the arp by the synthwave community are commonly Juno synths, Roland synths (e.g. the Jupiter 8, JX-8P), Korg synths (e.g. their Mono/Poly), and the DX7. Examples of an arpeggiator can be heard in songs of the 1980s, such as the introduction of 'Rio' (1982) which is played by a Jupiter 4. Equally, 'Hungry Like the Wolf' (1982) has an arpeggiator in the introduction. Roland synths are a favourite of Duran Duran's Nick Rhodes, and the Jupiter 8 is heavily used on album *Rio* (1982) overall (RolandChannel, 2015). Cyndi Lauper's 'All Through the Night' (1983) also features an arpeggiator in the introduction (which was actually voiced by a Memorymoog [NPR. (2021)]). My analyses of synthwave songs demonstrated examples of arps, with Timecop1983's 'Back to You' (2018) featuring a brassy arp (SP2b) treated with an automated LPF (synth 1), and NINA's 'Beyond Memory' (2018) featuring a rising arp (SP2a) which is treated with a LPF (synth 6). Synthwave arps are an interesting example of how the community do not seek to faithfully recreate the music of the 1980s, (i.e. it is not 'restorative nostalgia' and is more 'reflective nostalgia' Boym [2001]), they instead reimagine it. This is evident when listening to examples of arpeggiators on songs of the 1980s, which are not as rigid in their use of note minimalism or one-direction melodic contouring as the synthwave style (i.e. synthwave arps bear less resemblance to arpeggios heard on 'Rio' by Duran Duran [1982], or 'Storms in Africa' by Enya [1988], for example). A closer resemblance to synthwave style arps can be heard on Vangelis' 'Spiral' (1977), Eurythmics 'Here Comes the Rain Again' (1984) and Cyndi Lauper's 'All Through the Night' (1983), but even these are still not entirely commensurate with synthwave arps.

Leads

I found that the detune nature of synthwave lead synths (SP3a) aimed to emulate original modular synths, which had temperature issues resulting in synths drifting in and out of tune (Pinch & Trocco, 2004, pp.120-121). My virtual ethnography showed that Juno's chorus was a popular choice to support the feeling of pitch drift, with other popular effects for achieving pitch drift being portamento, pitch bend and finetuning. The usage of these effects aims in part to "thicken" the sound of the lead, emphasising it in the mix. This emulates analog synths which had multiple oscillators for one voicing, which gave them a characteristic warm

sound (e.g. The Minimoog's, a monophonic analog synth with one voicing but 3 oscillators). Leads also tend to occupy their own octave, e.g. if a lead occupied around C4-C5, the arp would occupy the C3 octave. This was the case with my composition experiment 'Drift' (2019), where the arp occupied the E3 octave but my lead the E4 octave. In general, leads rely on short bursts of descending or ascending melodic contours which commonly make use of arpeggios. Rhythms are usually faster at the start of a melodic phrase and longer at the end, to make the use of portamento, pitch bend or finetuning overt. Synthwave leads are commonly created with saw waves, referred to often by creators as saw leads.

My virtual ethnography found that synth emulations chosen for SP3a are commonly the ARP odyssey, the CS-80, and Roland synths such as the Junos and Jupiters. This is in part due to the popularity of these synths for lead synth parts in famous 1980s songs, e.g. the main riff for Aha's 'Take on Me' (1985) was voiced by a Juno 60 (Buskin, 2011), the main riff for Depeche Mode's 'Just Can't Get Enough' (1981) was voiced by a Roland synth (Queen fan [...], 2019). SP3a clearly gives a nod to subtractive synthesis, but SP3b is typically designed with FM synth timbres and focus on a "glassy" and more digital bell sound. These types of melodies are common as counter melodies as well as lead melodies. For SP3b, common choices include the Yamaha DX7, Roland D50, and SQ80, with specific patches suggested such as the DX7's 'TUB BELLS', the D50's 'fantasia' or 'staccato heaven' and the SQ80's 'Neon Bell' or 'Jelly Bells'. My virtual ethnography showed that organ or glockenspiel presets also make good starting points for creating a synthwave bell sound. What is consistent about SP3a and SP3b is the use of detuning, and both utilise chorus and other detune effects. This is a deliberate effect to emulate the drifting out of tune nature of original modular synths. My analysis noted a synth lead on NINA's 'Beyond Memory' (2018) (referred to as synth 5) and Timecop1983's 'Back to You' (2018) (referred to as synth 3). Examples of the bell style lead can be heard in 1980s songs such as Taylor Dayne's 'Tell It to My Heart' (1988), which was voiced by a DX7.

Pads

Of synthwave pads, there are two main types, which in my experiments I named SP4a (Lush Moving Pad) and SP4b (Brass Pad) based on community terminology. The former is often described by the community as lush (usually in reference to lush string synths) and this pad has a sense of movement or swelling due to LFOs modulating the VCF. Synthwave pads refer to chords, and in general these should have slow moving harmony with lots of pedal notes. Sometimes synthwave pads are less overt in their presence or conveying of chords, and simply act as sonic padding to a track. To achieve the swell and movement of the synthwave pad in my audio experiment of SP4a, I set a saw LFO to modulate the frequency

of the filter at a rate of 2 bars (synced to tempo). As is also typical of synthwave pads (as it is for synthwave leads) I applied detune. My virtual ethnography found that synth emulations chosen for the 'lush moving pad' (SP4a) are typically Oberheim synths e.g. OB-X, Korg's M1, or Roland's synths e.g. the Jupiter 8 and the Juno range of synths. These synths are renowned for their silky pads and iconic lush strings sounds (Scarth, 2021) and the Juno range's onboard chorus effect is also well-renowned (Babyaudio, 2023). One usage of the Juno 60 is Enya's 'Storms in Africa' (1988), and another Cyndi Lauper's 'Time After Time' (1983) (main introduction synth - chords), which also uses the Juno 60's internal stereo chorus. The second type of pad is the brass pad, which is in part inspired by iconic brass pad sounds of the 1980s (e.g. the introduction of Van Halen's 'Jump' [1984], played on an OB-X [Synthtopic, 2023]) or the brass pad (actually voiced by a CS-80) in the introduction of 'Africa' by Toto (1982). Synthwave pads are often suspended or seventh chords, which in the estimations of the community sound dreamy (of suspended chords, this could be due to harmonic ambiguity due to the lack of third). Usage of suspended or seventh chords also relates to many 1980s pop songs which used these types of chords, and specifically on synths.¹²² This was related to emerging capabilities of synths in the late 1970s and early 1980s, when polyphony was advancing year on year. With 6-voice polyphony, one could play two notes in the bass and four notes in the treble (usually suspended or seventh chords, as opposed to simple 3 note triads), and this was more notes than could previously be played simultaneously on a single synth. Use of pads was found in my analysis of synthwave songs, such as NINA's *Beyond Memory* (2018) (synth 4 at 1'29), Timecop1983's 'Back to You' (2018) (synth 9 at 4'03) and DwtD's 'Diabolic' (2016) (synth 6 at 1'51).

Drums

Synthwave drums emulate drum machines of the 1980s, with common choices being the LinnDrum, LM-1 or the Simmons drums. Examples of 1980s songs which used a LinnDrum include Human League's 'Don't You Want Me Baby' (1981) (Buskin, 2010), Madonna's 'Dress You Up' (1984), Stevie Wonder's 'Part Time Lover' (1985) (Breihan, 2020), and Kate Bush 'Running Up That Hill' (1985) (Trash Theory, 2022). Simon's tom hits are common for toms, and gated reverb is also essential, to convey the sound of the 1980s. Phil Collins' 'In the Air Tonight' (1981) is an example of a 1980s song with gated reverb. My audio

¹²² Examples of these sorts of chords can be heard on Visage's 'Fade to Grey' (1980) (hear at 0'33): <<https://www.youtube.com/watch?v=eUt75E7jiTg>> (mima14031985, 2016), as well as the introduction to Van Halen's 'Jump' (1984): <<https://www.youtube.com/watch?v=eO1dWQJZLBg>> (Doctor Mix, 2020) and Pet Shop Boys 'West End Girls' (1984): <<https://www.youtube.com/watch?v=kKUaYvGMj8Q>> (Paul Adachi, 2014). See also for a demonstration of seventh chords on a JX-3P (1983): <<https://www.youtube.com/watch?v=0cU4XjvBOJI>> Alex Ball (2019).

experiments found that synthwave drums are nearly always in 4/4 and favour simple four-to-the-floor-dance rhythms. Tempo choices are typically 75-120bpm on average, to accommodate the faster rhythms (e.g. 8ths and 16ths) heard in synthwave basslines or arps. Use of four-to-the-floor drums was found in my analysis of NINA's *Beyond Memory* (2018) Timecop1983's 'Back to You' (2018) and DwtD's 'Diabolic' (2016).

Synthwave Style Parameters Summary

My compositional experiments supported an understanding of which style parameters are validated the most by the community, including how (e.g. which timbres, which application of music production), in what settings (e.g. which subgenre) and by which creators (i.e. artist demographic) these should be realised. Style parameters of synthwave rely on the usage of DAW technology to enact emulations of sounds of the 1980s. This is closely related to virtual analog subtractive synthesis but includes also usage of additive or wavetable synths. Through DAWs, synthwave creators can operate skeuomorphic representations of synths, samplers, and drum machines from the 1980s. My research has shown that certain synths, samplers and drum machines are preferred by the community, including which style parameters these correspond with (discussed above). In doing so, I have illustrated what many synthwave listeners subconsciously perceive (through hearing) as authentic components of synthwave-styled music. As such, it is possible that the online community would reject a song as synthwave-styled if simply *any* combination of 1980s synths, samplers and drum machines were used with *any* combination of synthwave style parameters. This was discernible in particular from my composition 'Killing Dreams' (2019) (Chapter 7), which utilised several synthwave style parameters, and had a good deal of key music production techniques which identify with synthwave. However, my lead synth was not a Juno or Jupiter, my drum part was not voiced by a Linndrum, and my bassline was not a Korg Polysix, nor was its decay setting of the sound envelope fast enough. I also did not make use of a brass pad, or lush moving pad. This not only reflects some of the gatekeeping arguments (of authenticity) which are present within the online community (i.e. how style parameter of synthwave are negotiated) but demonstrates chiefly how vital instrument timbre and music production choices are in how the community recognise synthwave works.

My composition reflections of Chapter 7 in particular highlighted the potential creative restrictions synthwave style parameters may have, in particular elements or instruments needing to be a certain synth timbre or have certain synth settings to qualify as synthwave. Lacking this, and as was the case with 'Killing Dreams' (2019), songs may only be considered synthwave inspired. However, it is deviations from the prescribed understanding of a synthwave song which led to new subgenres throughout the 2010s. In this sense, my

compositional process demonstrates a method in which these subgenres may have formed, through choices in the creative process which disagreed with expectations of the synthwave style. It should be noted that it is unlikely that community members would refer to elements of synthwave-styled songs as style parameters, and more likely that they would refer to song components of beats, bass, leads, pads, arps. They also use their aural preconceptions to describe synths, samplers, or drum machines, hence community descriptions (e.g. brassy arp, plucky arp, glassy bell lead) are what musicologist Phil Tagg would describe as 'synaesthetic' (perceptions using more than one sensory mode at a time [Tagg, 2011, p.65]).

10.4 The Online Synthwave Community, a Community of Practice

This thesis has argued that synthwave's position as an online music community constitutes that it is also a CoP, a type of community which has three dimensions, the *domain* (a common ground with a sense of community identity), the *community* (a social structure of engaged members which facilitates learning) and the *practice* (the shared repertoire or knowledge maintained by the community) (Wenger et al, 2002). In CoP terms, synthwave's *domain* relates to their formation as an online community and extends to their established genre identity as a collective community online. Their genre identity conveys the online community's privileging of components of the 1980s decade, as well as the synthesizer (instrument), and ideals of nostalgia (primarily 'restorative' and not 'reflective' [Boym, 2001]). It is recognised that the 1980s harked back to by members is idealistic: 'Synthwave is a genre that aims to capture a feeling of nostalgia for a time that never was. [It is] a fictionalised version of a 1980s future' (Survey Anon, 2019). Members have a shared love of the 1980s (their common ground) and seek to recreate their own version of it in a Web 2.0 and 3.0 context. Members identify clearly as part of the community, for example with their Twitter hashtag #synthfam, or simply the hashtag #synthwave. The community has a name rooted in the contributions by early founder Rick Shithouse, who reviewed '[19]80s-inspired synth releases' by independent music producers on his [now defunct] blog Synthetix.com (RS, 2019). Just like now-members of the synthwave community, Rick Shithouse too shared a love for music of the 1980s, spurring his decision to launch and operate Synthetix.com: 'I'm in my late 40s now and was a huge fan of [19]80s synth-based music in the [19]80s. [I] found this new revival of [19]80s sounds really engaging' (RS, 2019).

The *community* in terms of a CoP relates to positions held by its members and includes the power relations and resultant negotiations between such members (as individuals or groups), which in turn form and finesse community values and practices. Different types of members are present within the community, which in ethnography terms may be thought of as innovators, key figures, average musicians and non-musicians (Rice &

Ruskin, 2012, p.304). Such members may have more or less agency, depending on their contribution to, or recognition within, the community. For example, high profile artists such as The Midnight, GUNSHIP, Kavinsky and Electric Youth are examples of those with more agency, and in ethnography terms, maybe considered innovators or key figures of the style. These artists contributed to defining the synthwave style. This is particularly true of Kavinsky and Electric Youth, whose songs (respectively) featured on the *Drive* (2011) soundtrack, a soundtrack considered of high importance and significance to the community. Other positions within the community include all types of synthwave creators e.g. songwriter, producer, performer, DJ, playlist maker, tutorial creator, visual or graphic designer, podcast host, synthwave website owner, and more. Values held by members include those with traditional professional aspirations (of becoming a notable artist) but also include those who believe in creating art for art's sake. One of the main reasons that synthwave can be considered a CoP is because the skills to make it can be acquired, through community resources such as those named in Chapter 5: Synthwave Creative Processes. YouTube tutorials, Facebook groups and Reddit threads make up a large proportion of supportive resources for synthwave members, including computer and DAW recommendations, music theory resources, song writing and arrangement resources, mixing and mastering practice recommendations and synthesizer and sound design sources. With this inbuilt support permanently available within the community, synthwave's *community* dimension as a CoP is clear, and facilitates a continuous loop of learning and support, newcomer and mentor, experiencing and experienced. In a rather meta sense, the ability to learn is one of synthwave's values in itself.

The *practice* in terms of a CoP may be thought of as a type of subcultural capital, which is communicated, negotiated and maintained by members. It may also be thought of as synthwave's affiliated community knowledge of key artists, media and creative processes. Key subcultural capital demonstrated through my data relates to components of the 1980s, be it through image, fashion, music technology or otherwise. This is viewable from synthwave artist artwork, synthwave graphics (on sites such as Reddit) as well as through aesthetics of live performance (e.g. the neon pink lights shown at The Midnight show). Subcultural capital also concerns knowledge of individuals by community members, such as the work of film composers John Carpenter, or Vangelis. Knowledge of high profile synthwave artists is also considered subcultural capital of synthwave, such as The Midnight, GUNSHIP, Timecop1983, NINA, Kavinsky and Miami Nights 1983. It is for this reason that these artists appeared most in my analysis of example synthwave songs – these are the artists valued and recognised most by the community, and hence are a barometer for understanding how synthwave style parameters have formed over time. With relation to the *practice*, the *community* dimension of a CoP is particularly significant to synthwave, due to

the focus on community resources which support and sustain its existence. These shared learning resources (e.g. YouTube tutorials on “how to make a synthwave bassline”) allow for new members to engage with and ultimately join the synthwave community, which in turns leads to them learning community knowledge which sustains their membership. This simultaneously stops the community from dying out, as new individuals continually access the resources and learn the ways of synthwave.

10.5 Recommendations for Further Research

There is further scope for research into synthwave intersectionally. Whilst my study has examined gender within the context of the synthwave genre, it has not researched (beyond observations of synthwave artists) the limited creator participation by non-white ethnicities. A large portion of synthwave creators and community members are white European, and equally, the style is Anglocentric. This is despite a large number of French-speaking, German-speaking, and various other European nationalities engaging with and creating synthwave, which goes some way in explaining why I found several (non-peer reviewed) sources about synthwave outside of the English language as part of my literature review. Whilst I interviewed plenty of non-native English speakers for this thesis, it is a limitation of the research that my approach has been Anglocentric, and that my study focused on English-speaking virtual environments of the synthwave community.

I draw attention also to the inherent privilege of those who partake in online communities such as synthwave, since participation requires computer technology, time, resources, digital literacy, and so on. My study has also only skimmed the surface regarding issues of class when accessing cultural resources online, which may act as a barrier to participation. This is a general note about online music communities in a post-subcultural landscape, ‘The Internet is a mass phenomenon, but it is not universally available, and there are still some underlying inequalities that structure access’ (Hine, 2020, p.6). If wanting to create synthwave, even free DAWs require computers which have the technical capabilities to operate the software. Equally, those educated in music theory, music performance or music composition (and may have some formal education in one or all of these areas) may have an advantage when engaging in synthwave creation, which may in turn afford them more agency within the community. Whilst it is true that the synthwave community try to mitigate some of these factors through community resources and support, such factors are still relevant when considering negotiations of synthwave style authenticity. Despite values of expression, art for art’s sake, and the ‘de-territorializing’ of activities undertaken by music professionals (Kaitajarvi-Tiekso in Bennett and Guerra, 2018, p.103), there are still clear stylistic parameters which are recognised and valued as adhering to the synthwave style by

the community. Some of these style parameters can be achieved more readily (and in some ways, *faster*) through the purchasing of high quality plugins such as Korg's Polysix v2 (with patch 'Fat Line Bass') (\$99 from the Korg website), or the highly regarded Arturia V collection of virtual synths (599 euros full price from their official website). Without these, more time, alternate resources, and other methods to recreate synthwave sounds are required – a privilege not afforded to everyone.

Other areas for further research are music industry-related. Some primary research I started (through interviews) which didn't make it into the thesis was about synthwave record labels, and how online record labels are operating within the synthwave community. My intention with this data was to explore how an online music community's eco system mimics, or is a microcosm of, the music industry more broadly. I wanted to explore the practices of record labels within the context of an online music community and compare this to practices of record labels "in real life".

In future research, I am personally interested in exploring the themes aforementioned, of intersectionality within the synthwave community (of race and class) as well as music industry led lines of enquiry. I also wish to continue my concert ethnographies of live synthwave artists, to expand and further enrich my understanding of synthwave live practices. Based on my research for this thesis, further research I recommend relates more broadly to the studies of online communities. As mentioned previously of comparable styles with comparable cultural and technological backdrops (i.e. Web 2.0 and Web 3.0, e.g. lofi and vaporwave), I recommend considering to what extent the community of practice theory can be applied here.

Overall, this thesis advances our understanding of how retro music styles are making a comeback in the 21st century and utilising the power of the internet for cultural expression and genre formation. Through embracing music of the past, the online synthwave community have reimagined music from the 1980s, in a 21st century rebirthing of music made with synths. The result is an exciting and creative style of music – synthwave.

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Interviewees

All interviewees were conducted by the author, Jessica Blaise Ward. All interviews are unpublished and appear for the first time in this thesis. Where real names are included, the interviewee gave their permission. Where real names are omitted, the artist opted to be credited by their artist or handle name only. Some artists opted to be fully anonymous, but these have been named Anon 1, Anon 2 (etc).

Chapter 4

Bengtsson, J. (2019) Artist name Mitch Murder.
Braunch, K. (2019) Artist name Midwave.
Cram, P. (2019) Handle name Iron Skullet.
Emsa, L. (2019). Handle name Liam Emsa.
Gamper, E. (2019) Artist name Sunglasses Kid.
Futurecop! (2019) Artist name Futurecop!
Langlie, M. (2019) Artist name Cat Temper.
Leenaerts, J. (2019) Artist name Timecop1983.
Matrix, M., (2020) Artist name Miles Matrix.
Salvia, V., (2018) Artist name Vincenzo Salvia.
Reilly, J., (2019) Artist name Jon of the Shred.
R, Z. (2019) Artist name D / A / D.
Rick Shithouse (2019) Handle name Rick Shithouse.
LeBrock (2019) Artist name LeBrock.

Chapter 5

Leenaerts, J. (2019) Artist name Timecop1983.
Leenaerts, J. (2020) Artist name Timecop1983.

Chapter 6

Emsa, L. (2019) Handle name Liam Emsa.
CYBERCORPSE (2021) Artist name CYBERCORPSE.
Deadlife. (2019) Artist name Deadlife.
Anon 1
Kim, T (2021) Artist name Dance with the Dead, abbreviated to DwtD.
Occams Laser (2021). Artist name Occams Laser.
MD (2021) Artist name MD.
Irving Force (2021) Artist name Irving Force.
Volkor X (2021) Artist name Volkor X.
Hasseriis, J (2021) Artist name Dynatron.
Ghostdrive (2021) Artist name Ghostdrive.
VHS Glitch (2021) Artist name VHS Glitch.
Slo from Fixions (2021) Artist name Fixions, Slo from Fixions.
Renee (2021) Artist name Zith.
Rose Thaler (2021) Artist name Rose Thaler.
Rosser, S (2021) Artist name exandroid (stylised lowercase). Credited as exandroid aka Sasha Rosser as requested.
Sierra (2021) Artist name Sierra.

Kriistal Ann (2021) Artist name Kriistal Ann.
Lazermortis (2021) Artist name Lazermortis.
Surgeryhead (2021) Artist name Surgeryhead.
Maniac Lover (2021) Artist name Maniac Lover.
Circe Electro (2021) Artist name Circe Electro.
Powder Slut (2021) Artist name Powder Slut.
Cram, P., (2019) Handle name Iron Skullet.
Leonard, J, M., (2020)

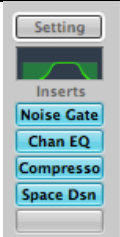



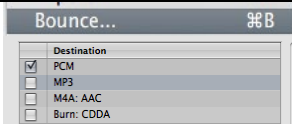
Chapter 7

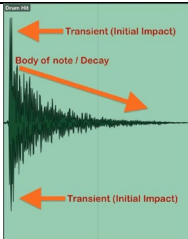
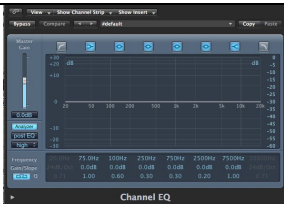



Boldt, N (2019) Artist name NINA.
Gordon, A (2020) Artist name Bunny X.
Danatelli, D (2020) Artist name Daria Danatelli.
Harrison, V (2020) Artist name Polychrome.
Hanley, M (2020) Artist name Bunny X.
McDuffee, M (2020) Artist name Megan McDuffee.
Dodson, H (2020) Artist name Parallels.
Kitsune, F, V (2020) Artist name CZARINA, stylised as C Z A R I N A.
Oblique (2020). Artist name Oblique.
Premo, L, A (2020) Artist name Rose Corps.
Magenta (2020) Artist name Magenta.
Stewart, H (2021) Artist name Mecha Maiko
Lee, Z, K (2020) Artist name Kaarin Zoe Lee.
Winters, N (2020) Artist name Virtual Intelligence.
Oceanside85 (2020) Artist name Oceanside1985.
Anon 2
Anon 3




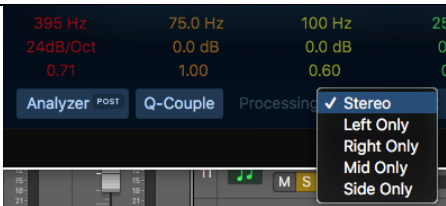

Music Production Glossary


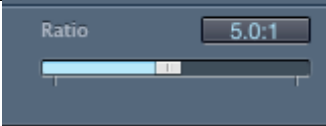


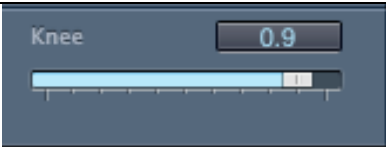

This glossary gives definitions to music production and technology terms. Some terms have audio examples and it is advised that you listen on good quality headphones or music grade speakers.

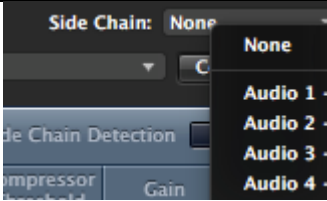



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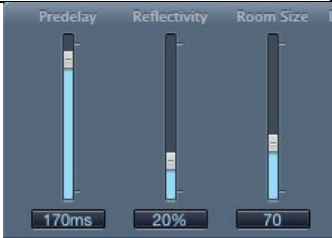
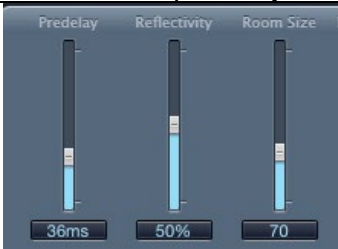
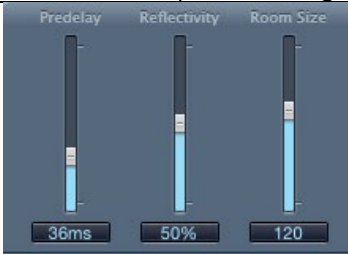
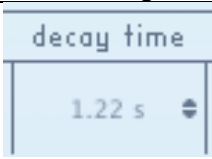
General Music Production and DAW specific Terms			
Term	Definition	Visual	Audio Example
DAW signal flow / audio chain	The order in which signal processing effects are applied.	 <p>Example of signal flow.</p>	
Panning	Setting audio/midi parts to be heard imaged in a position in ones' head.	 <p>Example central pan position (shown left) Example hard pan Left pan position (shown right).</p>	Excerpt 1
Plug-in	A library voicing or audio signal chain effect within a DAW.	 <p>Example plug-in, here TAL Reverb</p>	Excerpt 2
Automation	A graphic line which can be set to automatically lower or raise levels (of volume for example) at specific points in a song.	 <p>Example automation setting (volume). Image shows a gradual volume decrease by 5.1dB.</p>	Excerpt 3
Audio Mixdown / Bounce out	Where audio/midi tracks are saved (ie. to be heard outside of the DAW) through conversion to mp3, wav or similar.	 <p>Bounce > PCM (wav) option.</p>	

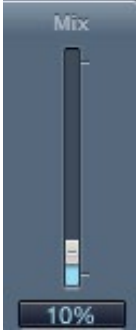
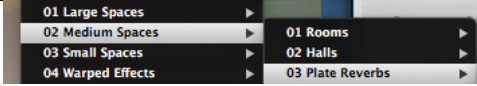
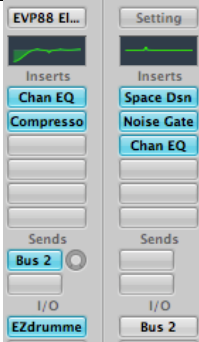
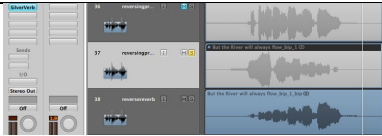
Transient	A short duration sound at the beginning of a waveform i.e. a short duration of non-tonal material that occurs during the attack phase at the onset of a sound.	 <p>(Albano, 2021).</p>	
Music Production Effects			
EQ	Equalisation, a music production signal processing effect which alters the perceived frequencies of a sound.	 <p>Graphic EQ Graph.</p>	
EQ Low-pass filter (LPF)	A filter that allows signals with a frequency lower than a selected cutoff frequency to pass.	 <p>Low-pass filter with a cut-off set at 2.5kh.</p>	Excerpt 4
EQ High-pass filter (HPF)	A filter that allows signals with a frequency higher than a selected cutoff frequency to pass.	 <p>High-pass filter with a cut-off set at 500hz.</p>	Excerpt 5
EQ Cut	Where chosen frequencies are cut on a graphic equaliser.	 <p>An EQ cut of 2db at 245hz.</p>	Excerpt 6

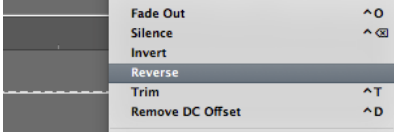



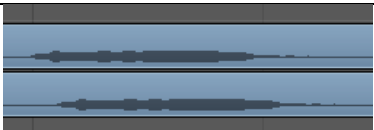

EQ Boost	Where chosen frequencies are boosted (or raised) on a graphic equaliser.	 <p>An EQ cut of 2db at 245hz.</p>	Excerpt 7
Telephone EQ Effect	Where frequencies mimic that of a telephone (ie. emphasising mid-range frequencies 500hz-4,000hz).	 <p>An EQ boost of 1db at 2100hz.</p>	Excerpt 8
Mirrored EQ	Where instruments are assigned EQ space that does not compete with each other.	 <p>A bass synth (top) and saxophone (bottom). The bass synth has mid cuts where the sax has mid boosts.</p>	Excerpt 9
Mid-Side EQ	Where EQ effects are applied to portions of the stereo channels.	 <p>Mid Side options on Logic Pro X https://youtu.be/ewHuyg7iE0c (MusicTechHelpGuy, 2019).</p>	Link shown left
Compression	Alters an audio signals dynamic range (ie. compresses the difference between a waveform's loudest and quietest points).	 <p>A compressor on Logic 9.</p>	

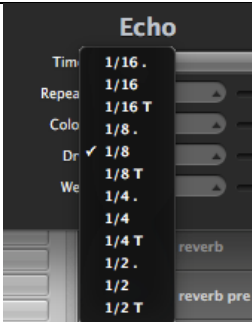

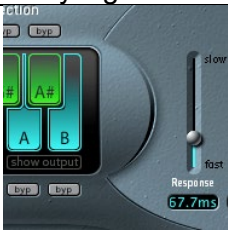

Compression (Threshold)	A set decibel value at which the compressor is triggered.	 <p>Compressor Threshold set at -20dB.</p>	
Compression (Ratio)	Once triggered, the compressor constricts the amplitude according to the ratio. Note: A ratio of 10:1 or higher becomes a Limiter.	 <p>A medium-high ratio setting.</p>	
Compression (Attack)	How quickly or suddenly the compression should trigger.	 <p>Fast attack and slow release setting.</p>	Excerpt 10
Compression (Release)	How quickly or suddenly the compression should cease.	 <p>Slow attack and fast release setting.</p>	Excerpt 11
Compression (Knee)	How sharply the compressor will constrict and release once it triggers.	 <p>Sharp knee setting.</p>	
Limiter	A more extreme compressor, which radically decreases the level of an audio signal that passes above the threshold.	 <p>A Limiter on Logic 9.</p>	

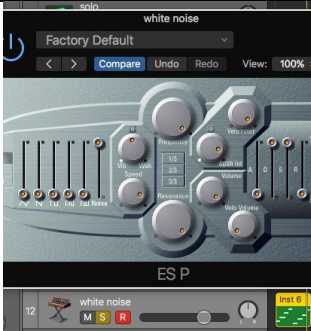




Sidechain Compression	Also known as ducking. Makes another track quieter when another gets louder. When applied, the music sounds as though it is pumping.	 <p>Sidechain option on a Logic 9 compressor. https://www.youtube.com/watch?v=JYedPZhuNSE (Logic Pro X Tutorials, 2014).</p>	Excerpt 12 [taken from link shown left]. A comparative listen. 0'00 – no sidechain 0'03 – sidechain applied 0'05 – no sidechain 0'08 – sidechain applied.
Noisegate	Constricts an audio signal below a set threshold. Usually used to reduce input signal at quiet periods.	 <p>Noisegate on Logic 9.</p>	
Noisegate (Attack)	How quickly the gate opens.	 <p>Noisegate with slow attack.</p>	Excerpt 13
Noisegate (Hold)	Determines the length of time the gate remains on or open.	 <p>Noisegate with medium-fast hold.</p>	Excerpt 14


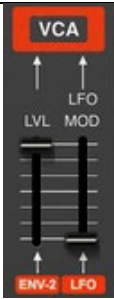


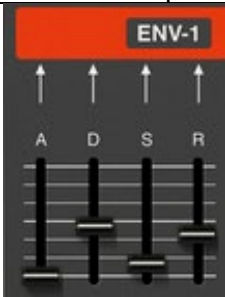

Noisegate (Release)	How quickly the gate closes.	 <p>Noisegate with fast release.</p>	Excerpt 15
Reverb	Simulates an audio signal to sound as though in a space i.e. Room.	 <p>Reverb 'silververb' on Logic 9.</p>	
(Reverb) Pre-delay	Or Pre-decay. The duration of time between the sound source (audio signal) and its initial decay.	 <p>Reverb slow pre-delay.</p>	Excerpt 16
(Reverb) Reflectivity	The extent to which (and speed) that a sound is absorbed depending on its material/ surface.	 <p>Reverb 50% (medium-high) reflectivity.</p>	Excerpt 17
(Reverb) Room Size	The size of the room simulated by the reverb effect e.g. small room, chamber, hall, cavern etc.	 <p>Reverb large room size.</p>	Excerpt 18
(Reverb) Decay	Also referred to as a reverb tail. The duration of time taken for the reverb to die out.	 <p>Decay time in Space Designer (Reverb option on Logic 9).</p>	Excerpt 19






(Reverb) Mix/Wet	How much reverb (wet) is applied to the dry mix.	 <p>Reverb low wet mix.</p>	Excerpt 20
(Digital) Plate Reverb	Simulated/ digital versions of the sound of vibrations through metal.	 <p>Plate Reverb option in Space Designer (Reverb option on Logic 9).</p>	Excerpt 21
(Digital) Gated Reverb	Based on the analog technique of placing one microphone close to the sound source while a second much further away to capture room sound. The sound would then be heavily compressed and sent through a noisegate with a high threshold level. The result is short sharp seemingly big bursts of sound. Often applied to the snare in 1980's music (e.g. 'In the Air Tonight' – Phil Collins [1981]).	 <p>Gated reverb achieved through reverb and a send track.</p>	Excerpt 22
Reversed Reverb	The process of digitally reversing an audio file.	 <p>Reverse Reverb process Logic 9.</p>	Excerpt 23 [taken from link shown left]

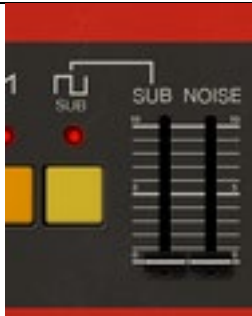

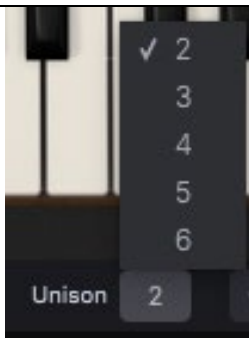
		https://www.youtube.com/watch?v=HwT7FWdSDRU (CallousDnB, 2011).	
Reversed Vocals	The process of digitally reversing an audio file.	 <p>Reverse option on Logic 9.</p>  <p>A Waveform that has been reversed.</p>	Excerpt 24
Chorus effect	Thickens a sound by combining slightly altered versions of the audio signal with the original signal.	 <p>A chorus plug-in on Logic 9.</p>	Excerpt 25
Double-tracked Vocals	Multiple sung takes presented together. Can be achieved one of two ways: two different vocal takes of the same part sung one at a time and then played together [or ADT – see below].	 <p>Two different audio files (multiple unison vocal takes).</p>	Excerpt 26
ADT (Automatic Double Tracking)	One vocal take duplicated digitally, with one of these moved 10-50ms out of time and one left in the original position.	 <p>Two of the same vocal take, the second moved slightly out of sync to create a fake double.</p>	Excerpt 27
Single-tracked vocals	One line of vocal, referred to in Western Art as monophonic melody.	 <p>The waveform of a singular vocal take/line of vocal.</p>	Excerpt 28

Echo	Creates duplicates of the original audio signal and plays them to a set rhythmic algorithm.	 <p>Parameters to alter echo on Logic 9. Here, time refers to rhythmic value of echo. Known as tempo-mapped echo. Excerpt 29 is 1/8 echo.</p>	Excerpt 29
Stereo Delay	Stereo delay plug-ins introduce duplicates of the original signal in one or both sides of a stereo signal.	 <p>Stereo Delay on Logic 9 – here are faders which control the left and right output on delay signal.</p>	Excerpt 30
Pitch Correction	Corrects incorrect pitches sung by a performer.	 <p>A fast-response pitch correction.</p>	Excerpt 31
Portamento	A smooth sliding between pitches.	 <p>Portamento OFF</p> <p>Portamento ON, set to legato and 160ms.</p>	Excerpt 32 A comparative listen 0'00 – no portamento 0'05 – portamento ON set to legato and 160ms.

White Noise	The effect of the complete range of audible sound-wave frequencies heard simultaneously.	 <p>Whitenoise using Logic 9's ES P synth.</p>	Excerpt 33
Tape Saturation	Tape saturation plug-ins emulate the sound of audio recorded through tape machines.	 <p>Saturn, a tape saturation plug-in.</p>	Excerpt 34
Detuning	Detuning one oscillator in relation to another to achieve width and timbral richness.	 <p>Detuning through Logic Pro X's Retro Synth.</p>	Excerpt 35 A comparative listen. 0'00 – no detune 0'05 – detune set to -27cents.
Synths (and synthesis). See Chapter 5 for Audio Experiments which include these elements of music production.			
Oscillators (or VCO – voltage-controlled oscillator, DCO – digitally controlled oscillator)	A tone generator or sound source e.g. sawtooth, square, noise, triangle, sine wave.	 <p>(left to right Triangle, Saw, Rectangle, Square) Screenshot from Arturia's Jup-8 V Audio Example of Waves: <https://www.youtube.com/watch?v=2iHZyTh9H8c> (Avalent Music, 2018).</p>	Link shown left
Pulse width modulation	Determines the width of the square wave.	 <p>Screenshot from Arturia's CS-80 V. Audio Example of Pulse Width Modulation: https://www.youtube.com/watch?v=ybUggNytxyA (KrassesZeug, 2009).</p>	Link shown left

Mixer	For combining sound sources such as oscillators.	 <p>Screenshot from Arturia's Prophet-5 V.</p>	
Voltage Controlled Amplifier (VCA)	An amplifier that modifies its gain depending on a control voltage.	 <p>Screenshot from Arturia's Jup-8 V.</p>	
Amplitude Envelope or ADSR Envelope	The shape of the sound through attack, delay, sustain, release.	 <p>Screenshot from Arturia's Prophet-5 V.</p>	
Filter or VCF (voltage-controlled filter)	Filters out parts (frequencies) of the sound.	 <p>Screenshot from Arturia's Prophet-5 V.</p>	
Filter envelope	Same parameters as the amplitude envelope (attack, delay, sustain, release) but the filter envelope controls the sound shape of the filter rather than the amplitude	 <p>Screenshot from Arturia's Jup-8 V.</p>	
Filter Slope	e.g. -12dB or -24dB. Essentially how harshly filters are thrown away or filtered out.	 <p>Screenshot from Arturia's Jup-8 V.</p>	

LFO (low frequency oscillator)	Used as a control signal for different parts of the synths – can use to adjust other things automatically to create audio effects such as vibrato.	 <p>Screenshot from Arturia's Jup-8 V.</p>	
LFO Rate	The speed of the LFO. Can be synced to tempo to a rate of e.g. 1/8.	 <p>Screenshot from Arturia's Prophet-5 V.</p>	
Brill	Frequency Sensitivity	 <p>Screenshot from Arturia's CS-80 V.</p>	
Velocity	How hard the note is hit	 <p>Velocity sensitivity on Arturia's CS-80 V.</p>	
Ring Modulator	Ring modulation is an amplitude modulation effect where two signals (an input/modulator signal and a carrier signal) are summed together to create two brand new frequencies: the sum and difference of the input and carrier signals.	 <p>Screenshot from Arturia's CS-80 V.</p>	

Sub oscillator	An oscillator that is one octave below the main oscillator pitch.		
Range	Alters the octave played by the synth (derives from the length of organ pipes).		
Voices	How many notes (or 'voices') the synth can play simultaneously. Monophonic synths have one voice, and polyphonic synths have multiple voices.		

Music Production Glossary Bibliography

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