

Experimental improvised sound design and music: classical strings and electric guitars

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This paper examines the role of the cello in the recording of Glasgow: A History in 16 Songs. The songs reach across a varied range, from ballads to a glam-infused rock sound, and cello is a fundamental component, rather than merely providing short decorative flourishes or solos. The paper analyses the specific practices of how the cello part was developed from early “demo” fragments of original songs before morphing into a larger experimental sound design practice. Here, expanded techniques were used, such as rough scratching of the bow on the strings to emulate punk guitar riffs, or the building of multiple discordant layers of ghostly hovering on strings on a song about Glasgow’s slavery history. In the recording studio, the cello is even processed through virtual “plugins” charging it through an amplifier and at times imposing reverberant acoustics from real sites in Glasgow. The paper will situate this study within a wider exploration of how musicians such as David Bowie and Queen have combined the raw virility of amplified electric instruments (guitar, bass) and extravagant multitracked vocals across a wide frequency range, with the opulence of classical orchestra segments.

Keywords: cello; improvisation; Glasgow; classical; auto-ethnography

1. Classical cello pedagogy - perhaps miss out!

One of the principal milestones in classical instrument pedagogy is sitting Associated Board exams, spending an entire academic year perfecting 3 classical pieces. The result of this work is over in a flash of anxiety – to be awarded a pass, merit or distinction. The degree of excellence is quantified by rating the technique, tuning, timing, but also “expressive quality”. Of course with prescribed classical pieces composed in 18th century there is limited degree of “elasticity” allowed, as the tempo, key and dynamic range are all specified.

There could be an intense pride in achieving a distinction worthy performance; however, there soon became a reliance on the writings of Bach or Vivaldi; and a pressure to perfectly recreate their gestures from a culture and time that was not mine. Performing music that was from centuries ago, could essentially feel tense and constrained – like being forced to watch a period drama and hating the pretentiousness of the stilted conversations.

The perfectionism in classical music pedagogy was paralleled in another art form; I also learned ballet from early childhood and marvelled at the way the tiny principal ballerina in Scottish Ballet would defy gravity in jumps, lifts and on point. I soon realised that the tiny frame often revered in classical ballet was unattainable, the skeletal physique I thought that was required was otherworldly and painful to emulate. I acknowledge my immense privilege in learning this skill and the dance teachers that re-wrote the Black Swan narrative – heralding strength and diversity in contemporary dance forms.

In classical cello pedagogy, there was at times what Cziskszentmihalyi refers to as a state of flow – an optimal challenge, when I would constantly strive for a perfection that was only possible with obsessive practice – a precarious goal which could easily teeter onto ego-shattering upset. In times of immense pressure, a slight error in private practice could conjure tears or elicit growls of frustration.

<There were of course larger social structures such as city-wide symphony orchestras, which mixed both classical repertoire and popular culture to welcome all communities in one space. Rodrigo’s Guitar Concerto de Aranjuez was a highlight of this time and I believe it influenced The Passionflower’s Lament, a song commemorating soldiers who fought against fascism in the Spanish Civil War>

An unintended byproduct of the classical cello pedagogy is that I felt that I could never compete with the mastery of baroque composers, so I felt immense writer’s block and never managed to improvise on the cello for pleasure or to express my own thoughts or emotions.

The first moment I felt confident improvising was at Edinburgh College of Art, where I studied painting. I often used photography of sunlight moving across white gallery walls as a source material for oil paintings on board or screen prints. But once I borrowed a camcorder to record videos as moving paintings, directly capturing this phenomenon as the art. This camcorder had a faulty auto-focus, that glitched and twitched due to a fleck of dust lodged in the lens. The bands of light and shadow on the gallery walls buzzed and vibrated as the camera went in and out of focus – and what I saw resembled cello strings being plucked.

Therefore, I intuitively reached for my cello and began to “play” the film as a moving graphic score! Suddenly, the need to be locked to a key or structured time signature mattered to me less – rather, there emerged a new compositional language from this film:

- a graphic build in intensity of light was the direction for a crescendo to loud fortissimo.
- The widening of the bands of colour became a substitute for minims or crochets
- the stasis of a shot when the auto focus functioned correctly became a rest.

I intuited a new language in this moving graphic score, and I enjoyed the pleasurable sensation of precise audio visual matching. I brought this practice out of the painting studio and into dance clubs, art galleries and academic conferences. Read more in my undergraduate dissertation, **THE SOCIAL AND AUDIOVISUAL HARMONICS OF PROGRESSIVE HOUSE CLUB CULTURE THE PHYSIOLOGICAL EFFECTS OF A STAGED SYNAESTHETIC PRODUCTION.**

This led to years of immersion in diverse forms of listening and responsive, community led practice in Glasgow Improvisers' Orchestra – you can check out my Audio Engineering Society lecture entitled “Telematic Music Making” for more information about this group! The ensemble features seminal performer/theorists/activists, such as George Lewis, Maggie Nichols and Raymond MacDonald. I did not even need a graphic score anymore! Rather I could conjure ephemeral, never-replicated free musical structures either in response to other musician's gestures or even as a soloist.

Important to take away from this, is that I recognise the invaluable privilege of classical cello training – however, in my teens I felt a crippling inability to improvise freely or write my own original music at that time, as I felt intimidated by the canon of Western baroque arrangements, that I could never live up to the “masters”.

Next, you will discover how I implemented the lessons from classical pedagogy and free improvisation ensembles, in the Glasgow: A History in 16 songs for The Tenementals.

0. Introduction

Hello, I'm Dr. Jessica Argo – I am the programme Leader for the BDes Sound for Moving Image course at Glasgow School of Art. I also play the cello and a Moog Theremini in the Glasgow Improvisers Orchestra and The Tenementals.

In this paper, I will explain how I shape the cello parts for The Tenementals by improvising to the early demo performances on from Simon, our Lead Guitarist, and David our songwriter and principal singer. We tailor the performance dynamics and enhance the recorded takes with post-production techniques in the studio, to ensure the cello can fit the genre of the song, and speak to the historical context alluded to in the lyrics.

You will discover how this practice is built upon a foundation of classical cello pedagogy, but equally owes much to my experience of free musical conversations in Glasgow Improvisers' Orchestra (and soon Australian Art Orchestra soon!)

In classical pedagogy I learned technically challenging cello solos in high registers full of semiquavers or complex rhythmic motifs for exams; but in symphony orchestras and string quartets, I learned to play the low frequency accompaniment in droning minims and semibreves, as the cello often did not have the main tune!

In free improvisation ensembles and art installation collaborations I learned to listen and respond to my peers in real time! I would become attuned to their spontaneous gestures, interpret graphic scores and I learned how to impart stage presence through my physical gestures among a loud and disparate ensemble of brass, wind, electronics, techno producers, theatre performers and dancers.

The free improvisation ensembles empowered me to write my own ephemeral musical stories – breaking free from the perfectionist shackles of reciting the work of baroque master composers.

In 2018, I began to blend these two approaches as I figured out my own tune for fixed songs with the Tenementals, and also integrated my sound design experience from my research in ambisonic soundscapes at Glasgow School of Art.

What is quite unique about this approach compared to earlier prog or glam rock with a commissioned session orchestra to play an already composed part, is that the cello is a permanent member of the band, part of the compositional process, embedded in the recording but also *on stage for every live performance*.

2. How was cello a fundamental component of The Tenementals songs – rather than an occasional decorative flourish.

In my introduction I outlined the impact of classical cello pedagogy – which fuelled a passion for advanced techniques and the intense pleasure of achieving distinction in performing classical repertoire.

Fast forwarding to The Tenementals – here is how we composed the cello parts. David provided a lyrics sheet with Simon's guitar chords. They would present the songs to the rest of the band in "demo" form, with just voice and guitar.

In the Glasgow's Improvisers Orchestra and other ensembles, I can have a spontaneous musical conversation with a room of players – whilst I do incorporate improvisation for The Tenementals, you will discover that the freedom of improvisation varies from song to song – there is a fixed set of lyrics and chord structure to bend to – for Passionflower's Lament it was almost as if I improvised to "find" the one and only cello part that was appropriate – whereas for Pentimento, we constructed an ethereal

ensemble of several improvised cello takes that would be near impossible to replicate in a live performance.

The Passionflower's Lament

I have included the result of the first few hours of rehearsing The Passion Flower's Lament, from 18th January 2020 in this padlet page, for those of you who are interested to listen – you can hear some fumbling around the cello as I try out different motifs – some motifs closely mimic Simon's guitar such as the wavering oscillations of (do-do-do-do-do-do-do), whereas the other motifs include a line-length bed of the keynote from the assigned chords.

Key decisions included whether to go up the octave each time the chorus returned. In the studio recording of the cello part in February 2022, we decided that the most constant, uniform stripped back approach in the lower register was what suited the song best. That is, we wanted the cello to have a ghostly presence, but not a prima donna centring, or showing off. There is a huge difference between the expressive, virtuosic performativity required for a cello solo such as Camille Saint Saen's The Swan or The Telemann sonata – where a player would cascade in challenging semiquaver runs high up on the fingerboard where it takes great skill to keep in tune. These cello solos are written to be gently accompanied by piano. However, when a cello is playing in a band with a guitarist and a singer – the cello should rarely push through into the higher registers – unless there are obvious moments for it to shine through obtrusively, and take centre stage.

In this clip of the final fixed cello part with an A string variation for the final chorus, you see that the majority of the piece is akin to the bed cello parts in symphony orchestra or string quartet, such as Pachelbel's canon – it is often the very low register on the C or G string (especially to start and end the piece).

Note that I was not “given” a part, Simon and Davey did not hand over a string arrangement scribed onto a western staff notation, on music manuscript paper – rather we co-created these songs as I played by ear and scrutinised my compositions with the group after each improvisation. This happened in the early rehearsals and practice upon practice cemented these parts to muscle memory. In the studio, Ronan's comprehensive knowledge of all parts as viewed onto a multi-track ProTools session at times provided eureka moments – for example on a song called Hope Street, we decided to synthesise a virtual cello trio as I played a repeated crochet rhythm that gradually spread across three strings – not quite as many layers as the vocals in Queen's Bohemian Rhapsody.

You might wonder what happens if the part is higher?

There is a clip where I show higher variations of the riff on a d string then on an A string – which was not chosen as it would fight against the vocals and the guitar – trying to occupy their place on the frequency spectrum. The last ghostly low frequency c string variation was the one chosen for the recording.

The higher variation almost emulates the “centre-stage-ness” of one of the cello solos selected for a Grade 7 exam, Camillie Saint Saen's The Swan – although the rhythms are quite easy and straightforward, the finger positions are so high that the part is transposed to the Tenor Clef! Which is very unusual for cello. It is in the very high registers.

Therefore it was thought that a Pachelbel's Canon approach (cello as accompanying low frequency) was more appropriate. Here is an example of the most repetitive but emotion inducing cello part for String Quartet. In the original transcription it is the same 4 bars repeated for the entire piece for the cello! I tried to play it like that again the whole way through but I couldn't help improvising the memories of what my violinists were playing.

Pentimento

For Pentimento, I wanted this song to be uncomfortable to listen to, as I found it to be quite grotesque to make a “beautiful” song that is “pleasurable” to listen to, when writing unflinchingly about a literal “portrait of the British Empire”.

< Pentimento literally means the reappearance of an earlier drawing that has been painted over – the failing of a cover up. Our song Pentimento is specifically about a painting of the Glassford family, painted by Archibald McLauchlan in 1764-68 who profited off the Slave Trade. There have been debates about whether a young black boy in the background has been painted over – although it has been discovered during restoration that it was not consciously covered, rather the oil paints used for the boy’s skin and the back wall in the painting seemed to have darkened into obscurity over time, covered by centuries of dirt. We wanted to use this as an analogy to critique the institutional glossing over of our exploitative colonial history, or the limited telling of civil rights history in schools. This is in response to the anti-racism work that we are doing as academics at Glasgow School of Art and University of Glasgow. <https://glasgowmuseumsslavery.co.uk/2018/08/14/john-glassfords-family-portrait/> >

I played indeterminate microtonal slides and harmonics (when the fingers from the left hand lightly touch a string on the fingerboard), and placed the bow delicately near the bridge, barely touching the strings, to produce an ethereal, distant sound. As is common practice in a recording studio, we tried several takes, recording each one onto a new track. I suggested as a joke, let’s listen to them all played back at the same time, joking “it could be beautiful” – all the while, thinking that it would be a confusing mess. However, upon listening to it back – we realised it perfectly symbolised the layers of paint, whilst the indeterminate slides generated an ascending and descending, almost as if floating on the waves of the Atlantic ocean. This swirling cello cacophony gave the bittersweet country blues-inspired guitar sound and gentle recitation of the lyrics an edge that makes the listener uncomfortable.

We wish to record both a field recording of the ambience and an impulse response from the People’s Palace where the portrait is exhibited – from impulse response we can generate a bespoke convolution reverberation plugin, to make the cello or a voice sound as if it is echoing within that site.

It would be an immersive, educational experience for the listener, if we insert extracts of field recordings from the sites mentioned in each of the songs, or venues in which we have performed the songs (ideally in stereo so it can be heard without requiring headphones as would be required for binaural recordings). We have already inserted salient archive recordings such as that from shipbuilding worker activist Jimmy Reid on a song called Universal Alienation - “We’re not rats, we’re human beings”. Beyond the Glassford portrait ambiences, field recordings/archive sounds/foley effects can include:

- Wind over the River Clyde for Owl of Minerva
- Honks and rushing of water, clinking of glasses and smashing of bottles for another song called Steamboat Sundays
- Traffic cacophony, sirens and ambience from Central Station for the song, “Hope Street”

Owl of Minerva

This song has a relentless descending riff of dun-dun-dun G-Fsharp-E on the D string – and then a James Bond-like chromatic swell of a bridge while David shouts “She Ponders!!!...” b-----b-c-----c-csharp dun-----dun dunnnn---dun dunnn----- to play anything else would just not fit in!

What was especially fun for this piece was that I got to play so hard and loudly that my bow lost a few horsehairs every time I played it!

I also got a thrill out of charging it through a guitar amplifier plugin on ProTools – it made the cello punk!

I was not afraid to really shriek and scratch the strings, playing close to the bridge and rushing the bow in a frenzy.

To summarise the following expanded techniques were used:

- rough scratching of the bow on the strings to emulate punk guitar riffs – in The Owl of Minerva
- In the recording studio, the cello is even processed through virtual “plugins” charging it through an amplifier (such as Soundtoys’ Decapitator, Tone Empire’s Loc-Ness, and Native Instrument’s Guitar Rig)
- or the building of multiple discordant layers of ghostly hovering on strings on a song about Glasgow’s slavery history for Pentimento
- There can be an implantation of reverberant acoustics from real sites in Glasgow.
- And finally a conventional Pachelbel’s Canon like drone bed in of keynotes from the assigned guitar chords for The Passionflower’s Lament.

Next, I said that the paper will situate this study within a wider exploration of how musicians such as David Bowie and Queen have combined the raw virility of amplified electric instruments (guitar, bass) and extravagant multitracked vocals across a wide frequency range, with the opulence of classical orchestra segments. For the paper, I also added Beyonce, and some gems from the 90s melodramatic rock genre.

David Bowie: Strings in Glam Rock as a one-off for the studio mix

One of the most iconic Glam Rock tracks with an opulent string section embedded on the album recording, David Bowie's Life on Mars was actually performed *live* in 1972 *without* a string section:

- only Bowie on vocals, guitar, 12 string acoustic guitar,
- Mick Ronson on lead guitar
- Trevor Bolder on bass guitar
- Mick Woody Woodmansey on drums (according to <https://www.bowiewonderworld.com/tours/tour72.htm>).

According to the credits on tidal – there are no string players, but there is Mick Ronson's "mellotron".

But digging deeper in Nicholas Pegg's The Complete David Bowie book from 2016, this was actually Ronson's first string arrangement and Woodmansey recounts that Ronson was very nervous to work with the BBC session players:

"He was very nervous about it. We had a whole string section at Trident with the proper [BBC](#) session players who, if one note was not written properly, would turn their noses up and you wouldn't get a good sound out of them. So Mick was really nervous, but when they played the parts they realized these rock'n'rollers might not be guys we want to be in the studio with, but the parts are good. They took it on and really went with it."

Pegg, N., 2016. The Complete David Bowie (Revised and Updated ed.). London: Titan Books.

Important to take away from this – is that the BBC session string musicians were recorded once, in a nerve-wracking high pressure, studio recording - but as far as I can see never toured to perform live with Bowie, in either 1971 nor in later epic Glastonbury headline sets. This harks back to the idea from Simon Frith's Performing Rites text, that the in the 1970s onwards the studio recording is a densely layered, synthesised performance space, or a simulation of a hyperreal performance space rather than a document of a real performance event – and it will likely not be replicated live outside of the studio.

Skunk Anansie and even Nirvana included strings as a fundamental live component of their music be it in Unplugged or special event award shows in the 1990s.

Beyonce's Musical Instrumentation to implant and amplify social-political historical context

In 2009, Beyonce performed hits from her 2008 album I am Sasha Fierce, such as romantic ballad Halo. There is comprehensive documentation of her intimate performance to 1500 people at the Wynn in Las Vegas – harking back to a tradition with Las Vegas residencies being decadent, luxurious (and static!) like Elvis' multi-year residency at The International. She clearly has classical performers on stage along with backing singers, electric guitarists and drummers – an 18 member all female band, the Suga Mamas!

Look out for harp, violins and cellos... but electric guitar seems to stand in for the studio strings in the DVD final mix OF THE LIVE performance.

The album version (studio mix) favoured very synthesised strings and synthesised choral sounds, which matches the bleached shards of light in the otherworldly music video. Even if the string ensemble is not a faithful playback of sounds integrated in the original, they add to the decadent, over the top aesthetic and give a sense of a chamber ensemble stage presence. It could be thought to

heighten emotion, and certainly adds a depth and organic quality at around 3:40 when the cellos visually and aurally frame Beyonce.

More recently Beyonce integrated Historically Black College and University Band culture to hyperbolise her references in the larger than life "Homecoming" at Coachella (or Beychella!) in 2018. Staging a pyramid of incredibly passionate performers from Black Colleges, who danced as well as playing, produced a spectacle and sound that speaks to her desire to attend one of the iconic black colleges (see the Netflix Special for more) and also as a celebration that she was the first black woman to headline Coachella <https://www.netflix.com/title/81013626> . In making an expansive documentary of the meticulous behind the scenes preparation she educates her global audience about this impressive staple of black community culture in America, in a glorious celebration - whilst showing immense vulnerability of the star's homecoming after a difficult twin pregnancy.

What it also does, is bridge the historic references in her music to the Motown genre e.g. the saxophones in Crazy In Love are a direct sample from the Chi Lites' Are you My Woman (Tell Me So).

Therefore in the second instance we have musical instrumentation (and performance) to implant and amplify social-political-historical context.

Queen's symphonic approach to multi-tracking vocals

Definition of symphony:

an elaborate musical composition for full orchestra, typically in four movements, at least one of which is traditionally in sonata form.

"Beethoven's Fifth Symphony"

A Queen power ballad with a full orchestra is Who Wants to Live Forever, soundtracking a tear-jerking moment in the kitsch film about battling immortals, Highlander (1986). However I believe there is something inherently string-like about the arrangement of voices in Bohemian Rhapsody – it reminds me of the way the parts for the first violins, second violins, violas, cellos and basses (along with the epic brass and wind sections) would slot together like a complex jigsaw puzzle in the Aberdeen Youth Symphony Orchestra I played in.

Bohemian Rhapsody of course is dramatized as the conceptual, indulgently long song with an “operatic” section in the middle, but the opening sequence, with a capella voice almost sounds like there is a hyperreal orchestra of Freddie Mercurys – each panned across the stereo space (as heard in this track 2 of a 24 multitrack recording -there could be up to 200 overdubs at the most complex sections!) – this sonic effect is visually emulated in the duplication sequence and infinity feedback imagery of the music video.

(All of the special effects were achieved during the recording, rather than editing. The visual effect of Mercury's face cascading away (during the echoed lines "Magnifico" and "Let me go") was accomplished by pointing the camera at a monitor, giving visual feedback, a glare analogous to audio feedback. The honeycomb illusion was created using a shaped lens.)

A dramatic reconstruction of the studio recording process for the track Bohemian Rhapsody (from the film of the same name) provides a humorous, playful and technology fetishizing account of this process – where Queen sought to maximise the potential of multitracking Ampex tape technology.

Again this is a technique that is very difficult to replicate live without restricting Freddie's performative elasticity – instead this opening acapella 50 seconds was skipped out in live performances. Instead the song begins with the piano, and the voice is paired down to one strong,

impassionate lead vocals– in fact the operatic section is cut in artificially in Live at Wembley (1986) from a tape recording, segued into Killer Queen in Night at The Odeon (1975) and or just missed out altogether in Live Aid (1985). In Live at Wembley Freddie sings in a predominantly lower register (to preserve his strength for a stadium audience), compared to the more youthful performance in 1975s Live at the Odeon.

Methods of Queering rock music: and why it matters

For this section I need to clarify the term “queer” as an adjective and a verb.

Standard definitions include “strange” or “odd” – of course it was also used as a homophobic slur, historically but members of the LGBTQ+ community have recently reclaimed this term. If a person identifies as “queer”, what it literally means when referring to a sexual orientation is that attraction can sit outside of the binarism of male/female. A person can be genderqueer, or their orientation can be queer. <https://www.them.us/story/what-does-queer-mean> . “Those who exist outside of what society mandates” Steven Z Patton, community activist and public speaker . Or Jason Orne, Asst. Professor of Sociology at Drexel University, states one reading of queerness might be to “reject the normal and .. [commit] to living an alternative lifestyle that emphasizes pleasure in a world of violence”

When we use “queering” as a verb, it can mean taking an - art form and skewing or bending it to break out of the normative conventions of that form – e.g. taking a straight, masculinised form of electric guitar based rock music, and injecting it with humour, surreality, flamboyance or even strangeness. 1990s Disney villains are often queered – i.e. made different in appearance and manner to the central protagonists, such as Ursula in the little mermaid (modelled off the drag queen, Divine) or the sarcastic wit and camp British accent of Jeremy Irons’ voiced Scar. <https://www.bbc.co.uk/iplayer/episode/p07sxbgg/inside-cinema-shorts-18-disney-divas> These characters also happen to be the most complex, fascinating and fabulous, with the best musical numbers (coincidence! I think not).

Of course the costuming, make up and embodied gestures of David Bowie and Queen are inherently flamboyant or coded as queer:

- Freddie is wearing a white skintight flared satin suit, rings, nail polish, cleopatra-like winged eyeliner, and big long hair (even Brian May wears a wizard/lizard like cape)
- In the video for Life on Mars, Bowie wears a turquoise suit to stand out from a white void like space, with bubbles of bright turquoise eyeliner, and fluorescent orange electrocuted mullet, and he sassily kicks his legs and emotes facial expressions like a caricature or Greek Tragedy mask. The light is saturated so that his facial features are almost floating in space.

Even the between-song spoken banter from from Freddy is overtly camp in Live at the Odeon:

- “Now then... we arree going to do a nice tasty little medley for you... we’re going to start off with a little segment from a numberrrrr called Bohemian Rrrrhaphsodayyyy”

Although Mercury was not able to be publicly out as a Gay man (as it would jeopardise music sales in conservative markets) and Bowie was in long relationships with women. But for Bowie, it was almost as if his sexual orientation in his private life didn’t matter, because his performative gestures were so challenging to the heteronormative constraints of rock, and the impact that the Glam Rock icons had on queer, genderfluid or lesbian, gay or bisexual audiences is palpable. Including this author – it gives the queer community the bravery to be unapologetically ourselves.

<https://www.nytimes.com/2016/01/14/style/was-he-gay-bisexual-or-bowie-yes.html>

Although I cannot speak for black audiences that Beyonce is speaking to in seminal album Lemonade, and the Bey-chella performances, I am utterly in gratitude to the informative and pleasurable affective challenging education Beyonce provides especially in her raw documentaries of the production processes of such a spectacle, and also her historic-poetic montage in Lemonade merging speeches from Malcom X along with surrealist poetry from Warsan Shire. As a woman, I owe a lot to Beyonce (or Sasha Fierce) in her determined drive to express herself in music, elicit strong emotions for personal catharsis - but also to stand up for herself in the face of objectification or mistreatment from the men in her life.

What is the common result from all of these artists? Intense emotional induction, irresistible urges to sing along, hysteria-inducing star quality and the binding of community from their fan base.

In Tenementals we try to bridge the gap between the string instrumentation and electric guitars – the cellist becomes a core member of the band, there at the origins of the song writing process and having a constant presence on the stage, equal to the guitarist and bassist. The cello part can be like a mediator between these two registers as cello has the widest range of any string instrument – it has the potential to be stratchy and rough for punk songs, or the capability to build a low frequency fog which counterbalances the mid frequencies of the electric guitar and the high pitches of the female vocal performance. I also believe that including a cello in a rock band, inherently queers it “emphasising pleasure in a world of violence”.

END

I wish I could go into the further influences of...

“Guilty Pleasures” - kitsch hyper-emotional strings in rock music of the 1990s

There are two tracks from the pulpy teen drama *Cruel Intentions* (1999, dir. Roger Kumble), which could be thought of as “Guilty Pleasures” as they are a kitsch, hyper-emotional implementation of strings in indie rock or trip-hop/punk rock music which expressed teenage angst of the 1990s. These tracks could be thought to stem from the nihilist grunge music of Nirvana, or Oasis’ masterful blend of a strings and acoustic guitar in *Wonderwall*, the soul-destroying melancholy of Radiohead but the artists featured in *Cruel Intentions* develop this angst even further into a **CINEMATIC GRUNGE MELODRAMA**.

Both of these songs have totally in-your-face contrasts – more jarring the holistic use of strings in science fiction referencing, psychedelic works like David Bowie’s *Life on Mars*, as they juxtapose grunge/punk performance with strings.

The Verve’s “Bitter Sweet Symphony” foregrounds Richard Ashcroft’s apathetic brit-rock dirge-ing vocals alongside sublimely bright strings and church-like chiming bells, along with pounding drums that drive the song, and wailing reverberant vocal trails. It is apparently a song worth a million dollars (Kumble handed over 10% of the film’s budget to use the song, as he had written the ending with that song in mind. <https://www.wmagazine.com/culture/knives-out-2-glass-onion-release-date-cast-title-details> . <The song is highly controversial, as it also voided their agreement with the Rolling Stones as they sampled more than the agreed upon 5 notes, so ended up losing much of their earnings.) (Another fun fact about this song is that it was requested by a bride that my string quartet would play this as she walked down the aisle, which moved us to tears as we played). >

Skunk Anansie’s “Secretly” flits between angrily-spitted whispered scorn and screaming punk melodramatic vocals, with scratching punk rock/trip hop guitars given an ominous delay that rings out in near silence, all combined with heart churning chamber orchestration. This song is played out over the end credits of the film to emphasise the toxicity of the “liasons dangereuses” on which this film was based. See the iconic TMF Awards Performance in Holland 1999, where the lead singer, SKIN, conducts the string ensemble and the camera operators captured extreme close ups of the classical string instruments.

(As a bonus check out this furious theremin performance from Skin at 2022 Glastonbury!!)

One year earlier, in 1998 there was an even more indulgent (and much less cool!) but immensely popular (no. 1 in US for weeks!) slow dance / power ballad featured in an apocalypse film directed Michael Bay – otherwise known as the one where Bruce Willis nukes an asteroid – “Armageddon”. The song was written by Diane Warren (originally intended for Celine Dion!) and it was called I Don’t Wanna Miss a Thing. Aerosmith transformed it into a...

"... high-voltage performance that is matched by a collision of rock-styled instrumentation and **grand, faux-classical orchestration**." Flick, L. 1998 for "Reviews & Previews: Singles" Billboard.

Strings arranged by Suzie Katayama

Cello as a supra expressive voice?

strings have been heard as supra-expressive voices throughout history (mimicking human cries, but with the capability to be faster, with a more diverse dynamic and pitch range). Is cello a particularly supra-expressive voice? The cello does have the widest range of pitches... and low frequencies are generally thought to induce fear and anger, or be associated with thunder rumbling, geological

disturbances such as earthquakes or volcanos simmering. Whereas high frequencies can mimic the sounds of animals or babies in distress.

A cellist, Steven Isserlis claimed in 2011 that the cello is “the instrument most like a human voice” <https://www.theguardian.com/music/2011/oct/27/steven-isserlis-voice-and-cello-series> – although Emery Schubert in 2018’s March issue of *Empirical Studies of the Arts* debunks this anecdotal myth, finding that no nonvocal instrument was rated as being voicelike, when collecting ratings from 174 participants in “Which Nonvocal Musical Instrument Sounds Like the Human Voice? An Empirical Investigation.

However, in Alf Gabriellson’s “The Role of Structure in the Musical Expression of Emotions” he provides a menu of musical shortcuts (harmonies and chords) which are often found to consistently connote “power”, “negativity” ... etc. In his “Strong Experiences with Music” he collected numerous accounts of a shock chord in Mahler’s 10th Symphony, with all instruments in the orchestra bursting in in discord and in violation of expectations of what has preceded as inducing a corporeal ecstasy – whe.

I believe the timbre of the horse hair on metal cello strings, resonating through the hollow wooden body results in a breathy sound, akin to the air from the lungs vibrating the vocal chords.

There can be a mesmeric physicality when performing the instrument, as the performers arms envelop the instrument, and the legs clutch the cello. For this reason I believe there is a femininity in the approach to handling a cello, compared to the phallic virility of the electric guitar.

Does the femininity of the cello act as a counter to, or a balancing of the virile masculinity of the electric guitar?

3. **Does cello queer a rock band?**

≤ (Structural gender imbalance in the music/sound industry)

There are of course some incredible female role models in the music industry, those at the top are growing ever increasing autonomy and creative control

- From Taylor Swift re-releasing her music as she intended
- To Billie Eilish being the youngest ever female headliner at Glastonbury
- Beyonce has diverted from writing wide (white) market friendly sugary pop music about romantic love from *I Am Sasha Fierce* and *4*, to cinematic visual albums deeply enmeshed in current social movements - from the 2013 self-titled Beyonce reflecting on and in turn popularising 3rd Wave Feminism; to 2016’s *Lemonade* being an album overtly sharing the perspective of the wronged black woman in America (mirroring the intense grief of police brutality with that of marital infidelity), and more 2022’s *Break My Soul* dubbed as an anti-capitalist, quit-your-job motivational queer anthem, released on the weekend of Pride. There is a sense that she can create her own vision, collaborating with revolutionary artists, and cross genre musicians (e.g. The White Stripes’ Jack White and her “Don’t Hurt Yourself” has an explosive Led Zeppelin-esque drum sample and animalistic roaring vocal distortion) in her own Parkwood Productions. >

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However despite these stadium filling international stars, and BBC Radio 6 music spotlighting, female, non-binary, trans and LGBTQ+ artists – there are pervading gender inequalities in the music industry which organisations like the Musician’s Union, Women in Sound Women on Sound and local grassroots organisations like Pop-Girlz are striving to diminish. By calling out sexual harassment or sexist behavior in male dominated industries, but also by proactively empowering girls and women to become confident with technology, to be seen as an equal participant in the creative process.

<https://musiciansunion.org.uk/news/new-research-highlights-growing-gender-gap-in-pop-music>

<https://wiswos.com/>

<https://www.instagram.com/popgirlzscotland/?hl=en> >

(Lyrics?)

Growing up in the era of “Indie Sleaze” where misogynistic lyrics were normalised and destructive hedonism reigned, I am aware of the cultural impact of these lyrics, and often seek queered approach to music. Examples of 2000s Indie Sleaze include:

- The Strokes sang “I want to steal your innocence” in *Is This It’s Barely Legal ...*
- Arctic Monkeys sang “You used to get it in your fishnets...” in *Fluorescent Adolescent*
- Even earlier, in revisiting lyrics of my favourite band as a 13 year old, the Red Hot Chili Peppers, I discover 1985 *Freaky Styley’s Catholic School Girls Rule* was actually steeped in realism, according to the lead singer’s accounts of an affair with an underage girl in his memoirs, “Scar Tissue”.
- In the 2000s’ Indie Sleaze era, if there was a female member of a band sexist reviews abounded. <https://www.nme.com/news/music/be-your-own-pet-reunion-interview-jack-white-indie-sleaze-3188194> .

Since the birth of popularised rock & roll, stars such as Elvis Presley have pushed the boundaries of the cultural consensus of “decency”, with the Presley’s libidinal dance moves where he embodied the music, causing an awakening in the young restrained (white) American audiences – songs were no longer just crooning about stolen glances or dancing cheek to cheek, rather 1957’s *All Shook Up* accounts for the visceral anxiety, pleasure and flushed physicality of romantic infatuation.

“Oooh, I’m all shook up
Uh huh uh
Mm mm mm, mm, yay, yay, yay
A well’a bless my soul
What’sa wrong with me?
I’m itchin’ like a man in a fuzzy tree...

.... I know one cure for this body of mine
Is to have that girl that I love so fine
Well she touched my hand what a chill I got
Her lips are like a volcano when it’s hot...”

Elvis’ dynamic performance style is now retrospectively celebrated, and the racism behind the damnation of his performance style is scrutinised (white politicians deeming Presley’s black influences to dismantle segregation) in Baz Luhrmann’s 2022 *Elvis*. >

However... Gendering/physicality of musical instruments

Lets put aside the larger socio-political context, and the messaging in rock/indie lyrics for now!
Instead lets hone in on the performative gestures and the established gendering of musical instruments
– focusing on the electric guitar, the cello and even the theremin.

Stars have used guitars, microphone stands (Freddie Mercury) , even their long hair (Beyonce)
<https://soundstudiesblog.com/2014/09/29/new-weave-swing-beyonce-snatching-wigs-via-hair-choreography/> as choreographic props to embody their music in live performance, swishing these props about as if conductors, to emphasise/punctuate musical flourishes.

The physical form of the electric Guitar could be seen as a hyperbolic phallic extension and the loud volume shouting out of the amplifier a symbol of male virility. Red hot chilli peppers emphasised this by performing wearing only socks, and Elvis girated across the stage to the upset of conservative programmers in 1950s america.

Some bands almost laugh at this masculinity or tease it through embracing pleasure in flamboyance, such as the pantomimic gestures of Queen.

Speaking of pantomime, Bowie was an experienced mime, training under Marcel Marceau protégé Lindsay Kemp, before he became Ziggy Stardust.

The cello has been coded as feminine as the Bond Girl in The living daylights charismatically performs her instrument (before it is shot through and used as a bobsled ☹️)

Tina Guo combines has impressive theatricality with hyper-embodied cello performances, thrashing her body around the stage and her face in a state of ecstasy. She totally steals the show as part of the Hans Zimmer live ensemble.

The theremin is often seen to be played by women which makes me wonder if it is coded as feminine - Clara rockmore Carolina Eyck. I was thrilled by seeing a subversion of this feminine coding-of theremin– instead it becomes coded as punk and androgynous as Skin from Skunk Anansie at Glastonbury licks, thrashes and smashes her theremin producing an authentic punk wailing.