# Exploring boundaries of improvisation and genre in contemporary cello practice

Justyna Jablonska

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&
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I, Justyna Jablonska, do hereby certify that this thesis, submitted for the degree of PhD includes:

- A portfolio comprised of recordings, *Songs for Cello and Carnatic Violin* and *Strata*, and a performance of *Lost and Found: A Cellist's Journey.*
- A commentary of approximately 14,500 words in length

and that it is the record of work carried out by me, or principally by myself in collaboration with others as acknowledged, and that it has not been submitted in any previous application for a higher degree.

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I received funding from an organisation or institution and have acknowledged the funder in the full text of my thesis.

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## Abstract

My research and creative portfolio explore problems that I've faced as a professional cellist in two domains: *improvisation* and *cross-genre work.* Cross-cultural research on improvisation has questioned the relationships amongst improvisation, composition, originality, and creative freedom. Free improvisation, which aims to free itself from the rules of idiom, can entail the constraint of too much freedom. Idiomatic improvisation, despite being "traditional," can generate originality and freedom. Musical works that cross-genre can be seen as inauthentic, but authenticity is not always desirable, and can be influenced by creative intent.

I explore these problems with practice-based research, following three lines of enquiry:

1. What is the varying significance of improvisation in different genres and performance contexts, specifically its relation to composed material, its contribution to musical originality, and the extent to which it conforms or diverges from idiomatic rules?

2. What creative constraints and possibilities are entailed by cross-genre musical performance?

3. How can this exploration of improvisatory and cross-genre work contribute to the expansion of cello repertoire and my own personal and musical development as a cellist?

During my practice-based research I undertook training in Carnatic music on the cello, an instrument that is largely absent from this tradition. I also trained in live electronics, which allowed me to alter the sound of my cello and to create loops. My research resulted in three original albums: *Songs for Cello and Carnatic Violin* (with Jyotsna Srikanth*); Strata* (with Emma Jane Lloyd); and a solo piece, *Lost and Found:*

*A Cellist's Journey.* These works draw on various genres (Carnatic, Polish avant-garde, electronic, and Roma and Jewish folk music), develop autoethnographic themes, and experiment with free, idiomatic, and semi-idiomatic improvisation. Throughout my research, I navigated the interplay between freedom and constraint in improvisation and cross-genre work in a journey towards greater artistic expression.

My PhD aims to invigorate the possibilities of improvisation through training in traditional forms and expand the boundaries of cello performance. It also yields practical knowledge on adapting the cello to Carnatic music, cross-genre collaboration, and electronic technologies.

*To Alex and Levi.*

## Table of Contents

## List of Figures

## Portfolio – Dropbox

https://www.dropbox.com/scl/fo/h125u65p4ww0nn2z2k9b4/h?rlkey=7jaf8qs52688r3tdasbzl3a8a&dl=0

### Links to Audio and Video Recordings

Spotify link to *Songs for Cello and Carnatic Violin*, May 2022
https://open.spotify.com/album/3cOpE78Na6yfynMANWPcKH?si=SG35l6w2TPGKNWPDzwX9gw

Spotify link to *Strata*, September 2020
https://open.spotify.com/album/6eYHqShUmz7JozcIQwENsF?si=K9UZBueYSeeqGSeCHHapJg

YouTube link to *Lost and Found: A Cellist's Journey,* August 2022
https://www.youtube.com/watch?v=B1AuWPDjsdA

### Video Recording

.mp4 file to the live performance of *Lost and Found: A Cellist's Journey* recorded on 23rd August 2022 at the Edinburgh Festival Fringe.

All three of these works comprise improvised material and are documented in audio or audio-visual media; I did not work from written scores.

### Script

PDF file with the script to *Lost and Found.*

### Supporting Material Folder

*Lost and Found: A Cellist's Journey* trailer video for Edinburgh Festival Fringe, August 2022.

Close-up video of Jyotsna Srikanth's hand, May 2019.

Trailer video of my duo with Jyotsna Srikanth for the Edinburgh Festival Fringe online edition, August 2021.

*Lost and Found: A Cellist's Journey* Edinburgh Festival Fringe poster, August 2022.

## I Introduction

My PhD research and creative portfolio explore problems that I've faced as a professional performer in two domains: improvisation and cross-genre work. In this commentary I reflect on how I responded musically to these problems and the expressive possibilities and limits they presented. I also situate them in relation to scholarly works and contemporary performance in these areas. I position myself as a professional performer engaged in practice-based research, in which, as Skains (2018) puts it, "the creative artefact is the basis of the contribution to knowledge." I thus aim to integrate discussion of conceptual issues with the aesthetic and technical dilemmas facing a performer who is seeking to engage with audiences. My hope is that my PhD has advanced my musicianship, enabled me to create original musical work, and yielded insights into performance practice that will be of future use to me and to others interested in the problems I explore here.

With that point in mind, I begin with my motivation for undergoing this PhD and my background as a performing cellist. I was born in 1986 in Lodz, Poland, and grew up in the shadow of communist rule. The music school I attended for twelve years was unique in that it combined primary and secondary education within one building. Despite the sweeping changes underway in Poland, the school was "still then in the Soviet mould, a high-pressure factory that would turn out musicians who would prove Poland's talent to the world," as I narrate in my autobiographical work, *Lost and Found: A Cellist's Journey*. Much of my later

work as a professional performer was formed by that training - as well as by a search to escape from its constraints.

That search took me as a teenager to the Warsaw Autumn Festival[i], which exposed me to avant-garde movements in classical music. At the same time, I got involved in the underground punk and drum and bass scene in my city. These experiences kindled a desire to create new sounds on my cello and music outwith the classical repertoire, a desire which led to a personal journey away from my rigid musical education and its associated career expectations.

At age 19, shortly after Poland joined the EU, I emigrated to the UK, where I completed my musical studies. I then began a career as a freelance cellist, performing standard repertoire, but specialising in contemporary classical music. From 2014 I also began performing in non-Western genres, especially music from South Asia. I had the opportunity to play with Indian musicians, some formally trained in the art tradition of Hindustani music, as well as Baul musicians, travelling minstrels from Bengal.

These experiences deepened my curiosity about traditions of improvisation within an idiom with strict rules. I had previously had experience with "free improvisation" in classical music that is, improvisation that seeks to create sounds beyond any recognizable idiom. Paradoxically, I had found that my experiments with free improvisation impeded my creative process. I tended to repeat familiar patterns and became increasingly dissatisfied with the resulting sound. At this point, I began to seek tools to revitalise my practice - novel ideas, techniques, sounds, and structures beyond my comfort zone and that of my instrument. I was impressed by the musicianship of my South Asian collaborators and intrigued by the prospect of learning to improvise *within* an idiom. I continued to perform in small ensembles, playing music that might be deemed "fusion" in that we used instruments not typically present in traditional Hindustani music (cello and guitar)[ii].

However, I also became aware in this period of what seemed to me to be unrealised aesthetic possibilities – as well as the challenges – of cross-genre work, which ultimately led me to undertake this PhD. For one, whilst we were performing in a "rāga style" I played from a written score, thereby sidestepping an essential aspect of this tradition: improvising before an audience. To deliver an authentic performance should I be improvising on stage, as audiences in this tradition generally expect instrumentalists to do, I wondered?

But I also realised that if I *were* to attempt improvisation during a performance, I would face formidable barriers. Improvisation in South Asian traditions follows strict rules and is often based on a lengthy period of study. Musicians often train from an early age with a master in order to improvise in a manner that can satisfy demanding and musically sophisticated audiences, referred to as *samajdarlok* ("one who knows" (Wade, 1984). Moreover, as I detail below, improvising on the cello within South Asian traditions presents technical challenges. For instance, the physical distances the left hand must travel to play the same pitch intervals are greater on the cello than on the violin. While learning idiomatic improvisation remained attractive to me, I also wondered whether I would even be able to do this and perform to a standard recognized by audiences.

Still, I was drawn by idiomatic improvision, not only because it promised a deeper engagement with a new (to me) musical genre, but also because it might improve my musicianship, and offer tools I could use in my performances in the Western classical domain. Improvisation after all was once a central feature of performance in this tradition but has lost importance since the 19th century (Moore, 1992). For example, improvisation was an indispensable skill valued by performers such as Paganini, Clara and Robert Schumann, and Chopin, and was seen as a means to creative liberty in the 18th and 19th centuries (Hill, 2017). The reasons for the decline of improvisation range from changes in performance contexts to the fading appeal of Romanticism. The decline accelerated as

instructors lost their familiarity with improvisation and became unable to teach this skill (Moore, 1992). Some have lamented this loss. Clark (2002), for example, argues that introducing improvisation into Western classical music would counter the "arid academicism" of formal musical training. Much contemporary music responds to this situation by seeking to introduce more spontaneity, contingency, and experimentation in performance. I wondered, though, if practicing not just "free," but also the idiomatic improvisation valued in South Asian (or some other non-Western) traditions, might also enable me to make a new contribution to the field of contemporary classical performance?

My interest in idiomatic improvisation would also entail exploring issues of hybridity and crossing genre in music. As I continued to collaborate with musicians in non-Western genres, I became more aware of the challenges involved. *Fusion* in music does not have a precise meaning, but it can sometimes be viewed as a form of cultural appropriation, or as a departure from authenticity without generating original material. To avoid the negative associations this term can sometimes have, I realised I would have to address issues of authenticity and cultural appropriation. My starting point was not to begin a traditional performance career in a South Asian music; after all, such a goal would be impossible to realise, not least because of the absence of a cello in that tradition. Rather, I sought to explore what would happen in an encounter between a performer with training in contemporary classical music and another art tradition, that is, a South Asian one which places relatively more emphasis on improvising (rather than a score) as the generator of originality.

Questions of genre are also important in contemporary classical music, even if it often seeks to move "beyond" idiom or tradition. Many composers have borrowed from European and other folk traditions, in works that tend to escape the negative associations of the "fusion" label. In the journey of my PhD, my creative practice in South Asian music would

eventually lead me to explore the genres that most influenced my early musical identity, that is, Polish avant-gardes and electronic experiments, as well as the Roma and Jewish folk traditions of my ethnic heritage. In what follows I first situate in the next section my PhD in relation to contemporary debates in two domains ("Improvisation and freedom" and "Genre and authenticity"). I then discuss my practice-based research (section two). In section three I reflect on my creative portfolio, which consists of three works: a 2021 album recording with Dr Jyotsna Srikanth, *Songs for Cello and Carnatic Violin*; a 2020 album recording of a duo collaboration with violinist Emma Jane Lloyd, *Strata*; and a concert video from a premier of my 2022 solo cello work, *Lost and Found: A Cellist's Journey.*

I was oriented by the following lines of enquiry:

1) What is the varying significance of improvisation in different genres and performance contexts, specifically its relation to composed material, its contribution to musical originality, and the extent to which it conforms or diverges from idiomatic rules?
2) What creative constraints and possibilities are entailed by cross-genre musical performance?
3) How can this exploration of improvisatory and cross-genre work contribute to the expansion of cello repertoire and my own personal and musical development as a cellist?

The principal genres I explore here are Carnatic, as well as Polish avant-garde movements, Roma and Jewish folk. By improvisation I include free improvisation, idiomatic improvisation, and performance that lies somewhere between these two poles, which I term "semi-idiomatic." "Semi-idiomatic improvisation involves greater creativity and idiomatic embellishment," as is apparent in some jazz styles, in which the player operates within a clearly defined and delimited idiom (Bailey in Sato, 1996). I employ the term as a heuristic tool (Moustakas, 1990) to examine the space between idiomatic and free improvisation. In

my creative practice and portfolio works I explored the possibilities and constraints entailed by crossing genre and by idiomatic, semi-idiomatic, and free improvisation.

## II Research and Performance Context for the Work

### Improvisation and freedom

My own experiences with free improvisation, and my collaborations with South Asian musicians, led me to take a more questioning view of this fundamental aspect of musical practice. The origin of the word "improvisation" is unforeseen (in Latin *improvises* means 'unforeseen') (Hornby, Lea, Bradbery, 2020). In the Western classical tradition improvisation – as the unforeseen aspect of performance - is distinguished from composition. As Nettl (1974, p.4) emphasised: "Improvisation and composition are opposed concepts, we are told – the one spontaneous, the other calculated; the one primitive, the other sophisticated; the one natural, the other artificial."

However, in cross-cultural perspective, this distinction is less clear (Nooshin, 2003). South Asian traditions *do* distinguish between improvisation and composed material, for example, but they look less to formal composition, and more to improvisation, as the source of originality. Improvisation also occurs within precisely defined rules, making it perhaps less 'unforeseen.' Thus, the very concept of improvisation is not stable, but may vary depending on its relation to composed material and wider musical context.

Since Bailey's (1993) seminal work on improvisation, there has been more critical discussion on how to define improvisation and how it fits within music practice. Even within the Western classical tradition the term improvisation is problematic. As Derek Bailey (1993) writes: "There is a noticeable reluctance to use the word [improvisation], and some

improvisers express a positive dislike for it. I think this is due to its widely accepted connotations which imply that improvisation is something without preparation and consideration, [...] lacking in design and method..." We often hear of musical improvisation as playing "without preparation" (Blum, 1998) or as "making it up as you go" (Bailey, 1980).

But several voices have questioned the negative associations of improvisation and underlined the musical skill and training necessary to improvise to a recognizable standard. Berliner (1994, 17) argues: "The popular conception of improvisation as 'performance without previous preparation' is misleading. There is, in fact, a lifetime of preparation and knowledge behind every idea that an improviser performs." However, the idea that improvisation requires such extensive "preparation" already suggests a tension with its meaning as "unforeseen." Butler (2014) describes improvisation as "[…] not a process of 'making it up as you go along' or creating something out of nothing. Rather, it always brings real-time musical processes into dialogue with certain pre-existent constraints."

Such "pre-existent constraints" point to problems with the ideal of "free improvisation," the form of improvisation I had already practiced before undertaking this PhD. Some free improvisers (including myself) find that they keep returning to the same pre-existing motifs, which may result in a narrower range of expression than in idiomatic improvisation. The problem might be avoided through preparation. Many renowned improvisational artists, such as John Coltrane, use rehearsal and practice to cultivate their ability to improvise spontaneously. In Ramshaw's view, "improvisation on the spot can never be total or pure" (Ramshaw, 2021). Ramshaw unpacks the notion of improvisatory freedom by cataloguing its different forms. For example, it can involve openness to the unpredictable, pushing beyond the unknown, and embracing error, aspects which I have experienced throughout my PhD research on all three projects. Toop (2002) similarly defines

improvisatory freedom as “abandoning control,” which my collaborations in my creative practice to some extent forced me to do.

Improvisation highlights the performer’s (relative to the composer’s) contribution to originality or other positive aesthetic values. In South Asian traditions audiences are often thrilled by a virtuoso’s improvisational abilities (Wade, 1984). Even when the performer is leaning on centuries of musical tradition that informs their improvisational choices, the listener's attention remains on the performer's skill (Valgenti, 2021). However, Valgenti (2021, p.60) suggests that focusing solely on the artist as the creative force neglects the crucial role of the tools and techniques used to create an improvisation. This argument became pertinent to my creative practice. Electronic effects, loops, sampled sounds, and a range of pre-existing musical structures drawn from Western classical, avant-garde, and Carnatic music were important tools for my improvisations.

Free improvisation is contrasted not just to composition, but also to “idiomatic” improvisation according to strict parameters defined by a musical tradition. Many non-Western traditions that value idiomatic improvisation, including South Asian music, have been seen as “conservative” (Jairazbhoy, 1971, p.102) in that they prize continuity with the past. Traits such as conservative and traditional can have a charged meaning in Western avant-gardes, which instead value opposed qualities, such as rupture from the past and originality. However, one starting point for my creative practice was to question such dichotomies between idiomatic and free improvisation. South Asian music, despite its ostensible conservativism, prizes a specific form of originality, what Bonnie Wade calls "ever-present freshness" (Wade, 1984), which is attained through improvisatory skill. Differently to “free improvisation,” in Carnatic music “freedom is […] generated from within the aesthetic construction” (Krishna, 2012).

Thus, idiomatic improvisation may offer the performer new opportunities for creative freedom, which after all is highly valued in some avant-garde movements. Sorrell and Narayan (1980, 2) argue that "[...] improvisation [...] takes place within the narrow limitations of a strict discipline […] the narrower the limits, the sharper the focus and the really good musician can find the greatest freedom within the narrowest limits." Such arguments prompted me to review my original views on free improvisation, especially regarding its subjective nature. I now understand that the scope of creative liberty in improvisation isn't fixed; it's shaped by diverse elements, such as the setting in which the improvisation takes place, the specific conventions of the musical genre involved and "the constructions of the social context" (Wilson, MacDonald, 2020).

Thus, how improvisation differs from composition -- and its significance for musical aesthetics - is not a given. The parameters that guide and contextualise improvisations can determine the scope of creative liberty (Pearson, 2021). Improvisation may occur within an idiom and yet still be perceived as a source of novelty and aesthetic value. Or it may also seek to distance itself from all pre-existing idioms in search of greater freedom and originality, yet still encounter constraints. Thus, my starting point for my creative practice was to openly explore various forms of improvisation, questioning their relation to values such as freedom, originality, and fidelity to an idiom.

**Genre, authenticity and hybridity**

> " […] Complexities of being a performer in a foreign tradition can lead to the creation of, not just new musical forms, but personally transformative ways of Being-in-the-world" (Noone, 2013, p. 35-36).

My interest in the boundaries of *improvisation* was integrally linked in my creative practice to exploring boundaries of musical *genre*. My intent from the start was not just to train in idiomatic improvisation, but to attempt to create musical work that "crosses" genres, in the process, reflecting on what constitutes genre. This aspect of my creative practice, like my improvisatory practice, I felt opened up aesthetic opportunities, such as improving my musicianship and creating new musical works. It also led me to face technical and aesthetic obstacles and navigate issues of authenticity and cultural appropriation.

As I mention above, one of my starting points for my PhD was my prior collaborations with non-Western performers, which resulted in performances and recorded albums that might be called *world, fusion, intercultural,* or *hybrid,* amongst other terms[iii]. These terms have varying connotations depending on context, not all of them ones that I felt would accurately characterize my creative practice. *World* is a highly recognizable term in the music industry with a corresponding market niche (for example, "record shops" have a world music section). However, it implies a Eurocentric, or even Anglocentric perspective, since it lumps together most popular music from outside the US, and a few other Anglophone countries, into a single category. Some of the most successful collaborations that have brought together Western classical music with non-Western music, like Yo Yo Ma's "Silk Road project," have been classified as world. But it was a term I avoided because of its hierarchical implications. *Fusion* has the advantage of also being a recognizable term, particularly in jazz, but its connotation of "melting" implies a change, perhaps beyond recognition, of the constituent elements of the traditions being "fused." I hoped, however, to work with these constituent elements of South Asian music: the "building blocks" of improvisation.

Another related term, *intercultural* seems to emphasise ethnic or cultural identity, whilst I wanted to focus on more aesthetic and technical elements of performance.

Moreover, I reflected that I was already "intercultural" in my heritage, as a Polish-Jewish-Roma émigré and possibly future British citizen; so, an "intercultural" position was already a starting point of my creative practice.

There has been much interest in *hybrid* music and wider cultural hybridity since the 1990s, derived in part from fields like postcolonial studies and interest in multi-ethnic and multi-racial identities (Noone, 2013). In cultural domains, the hybrid, Stross (1999, p. 255) argues, is a "metaphorical broadening of this biological definition. It can be a person who represents the blending of traits from diverse cultures or traditions, or even more broadly, it can be a culture, or element of culture, derived from unlike sources, something heterogeneous in origin or composition." Discussions of hybridity often highlight the unequal power dynamics that shape judgments of value during the cultural exchange. In the domain of classical music, on the one hand, terms like "folk" or "traditional" can pejoratively designate forms that are immutable, overly repetitive, or lacking in originality; yet on the other hand, efforts to introduce the modern (through technology or foreign influences) can be negatively perceived as inauthentic, impure, or commercial (Weiss, 2014). It is often only within colonial (Homi Bhabha, 1984) or other contexts of cultural domination, such as the control of the cultural domain by both communist regimes or right-wing populists in Poland, that cultural mixture emerges as a threat. Hybridity is useful because it challenges or "decenters" (Weiss, 2014, p. 510) the aesthetic hierarchies that assign value to cultural products. This point is relevant to my creative practice because I intended to challenge the idea that introducing new elements into music seen as "traditional" would degrade its aesthetic value and that music seen as "modern" is necessarily more original than the folk traditions it may appropriate.

Discussions of hybridity also highlight that cultural blending does not necessarily occur in a random, "free-for-all" manner, even when it transpires in an even playing field in

which “no one type predominates” (Kallberg 1988). For Emmerson (2007, p.5), hybridisation “may involve strong forces of attraction or repulsion - what is rejected may be as important as what is accepted.” He contrasts this kind of blending with *polystylism*, or the juxtaposition and superposition of multiple styles, associated with the work of *Schnittke* (1971). Even though the concept of musical hybridity troubles stark distinctions between the high and low, they are likely to persist in many contexts of cultural blending. While polystylism anticipated postmodern pastiche, it also attracted criticism, such as pandering to mass audiences by catering to their preferences for familiar sounds (Marsh, 2017). Discussions of hybridity do not just highlight the political or social hierarchies underlying cultural production, they also stress that creating hybrid music can require technical or formal structures (Mayall, 2016). In my musical practice, as I discuss below, I experienced new freedom from formal structures at times, but at other times, I went in the opposite direction, undergoing rigorous training in them. Hybridity, then, as I understand it, does not involve a predetermined stance of release from the formal structure.

Discussions of hybridity inform my research, but I settled on the perhaps narrower term, *cross-genre*, to refer to my creative practice and portfolio works. The hyphen in this term holds together two issues of central concern to me: the blending of heterogeneous elements (“cross”) and the style, rules and building blocks of sound inherent to musical tradition (“genre”). This term also implies a process rather than a result, thus fitting the creative practice activity. Most importantly, it allowed me to apply one term to the range of influences in my practice: South Asian art music, folk music, Western avant-garde, and electronic music. The last two categories in this series cannot be considered a tradition or culture due to their stress on experimentation and novelty. *Cross-genre* thus seemed like a useful term to me in that it could adequately describe my intended practice of combining

heterogenous musical elements, only some of which might be labelled “tradition” or “traditional.”

The term *authentic* is also frequently used in discussions of musical performances across different genres, not just in classical music. For instance, a performance of J.S. Bach Suites on a modern cello may be considered inauthentic. For different reasons a house music producer using a Hip-Hop riff without acknowledging its origins could also receive the same negative judgment. The criticism of a performer as “inauthentic” can also have commercial implications. Volgsten (2014) raises the example of musicians incurring financial liability due to their perceived inauthenticity: “1983 was the year that saw Neil Young being sued by his own record company for having recorded music that didn't sound like his previous albums: Neil Young didn't sound enough like Neil Young.”

Yet, what constitutes musical authenticity, and the relation of a performance to genre or tradition, is contested. Johnsons (2000, p.281) refers critically to authenticity as “a bounded concept, with no room for the flexibility or dynamic processes that constitute culture, and musical practice in particular.” If authenticity is regarded as stasis, then it becomes difficult to define or preserve given the fast pace of cultural change. “Music is, in the best sense of the term, recreational, helping us and our cultures to renew, to transform. It is essentially human to be an inheritor, part of a culture, and an innovator, creatively striving within or against tradition” (Swanick, Lawson, 1999). In Western contemporary classical music authenticity refers to faithfulness to the original compositions and intentions of the composers, as well as adherence to established performance practices. It is sometimes opposed to originality, which in classical music is frequently associated with innovation and deviation from the established canon (Goehr, 1994). On one hand, there is reverence for historical accuracy and tradition (authenticity); on the other, there is an impetus for creative innovation and breaking from the past (originality). This dichotomy poses a challenge for

composers and performers as they navigate between concerns with respecting music traditions and contributing new, unique works and ideas to the repertoire.

However, authenticity remains a valued quality in some contexts, and "inauthenticity" certainly a negative one. Some musical traditions may require special care or protection to preserve them in the face of globalizing or commercial forces (Palmers, 1992). The term authentic, moreover, can convey other positive qualities, such as affirming heritage or the skill of a performer.

The issue of authenticity is closely linked to cultural appropriation. "Appropriation is generally defined as the act of attributing something to oneself. It is about acquiring or possessing something for exclusive use or aims" (Deschênes, 2021). In music, appropriation can have multiple meanings, such as taking advantage of a culture's idiom, financial exploitation, or reproducing a song without due credit. It might also refer to borrowing or imitating a genre without consent, or in a manner that does not demonstrate sufficient awareness or respect for that tradition, including its aesthetic standards. Discussions of cultural appropriation can also raise wider political questions, for example, when it occurs across socioeconomic boundaries (Coutts-Smith, 2002) or when Western cultures appropriate art forms from racially oppressed or colonised people (Hatua-Saar White, 2020).

Music that is seen as crossing genre or tradition can be seen as inauthentic or as cultural appropriation, though of course there many successful examples of such works. Critical responses to cross-genre work have been varied and depend on many aspects of its genesis and form. For example, some felt that the Beatles appropriated Hindustani music by collaborating with Ravi Shankar, and then later replacing him with George Harrison, who played the sitar in the band. On the other hand, the experiment might have aided Shankar's aims to propagate Indian music more widely.

Some cross-cultural collaborations were successful at the time but became more questionable from current perspectives on cultural appropriation. An example is Ravi Shankar's and Yehudi Menuhin joint work in the 1960s, with Menuhin playing improvisations based on a rāga, without immersing himself in the tradition, i.e., learning the foundations of Hindustani music and attuning to the tradition's aesthetics. Others, like John MacLaughlin, underwent more intensive study of Hindustani music, and his project, Shakti, became an inspiration for progressive cross-cultural collaboration.

These issues raise questions relevant for my own creative practice. To what extent is it desirable – but also possible – to sound authentic? How does one display authenticity within a musical heritage, for example, through the artist's intent, training, or fidelity to rules of improvisation? During my creative practice, I realised there was tension between my goal of incorporating contemporary extended techniques into Carnatic music and maintaining authenticity in the *guru-shishya* (master-disciple) relationship. When I started working with Jyotsna, I aimed to be as accurate as possible in mimicking her sound, but that intention changed as our relationship developed. As I moved from Carnatic music to other genres, questions of authenticity and genre remained important. While avant-garde, electronic, and Roma and Jewish folk influences were all more "familiar" to me, I reflected on how these might be combined in ways might satisfy my own or others' understanding of originality. Thus, authenticity is not always obvious or desirable, and can be influenced by various factors, including creative purpose and cultural context.

## III Practice-Based Research

I addressed my research questions through *practice-based research*. Skains defines this term as a form of research where "the creative artefact is the *basis* of the contribution to

knowledge" (Skains, 2018). Haseman (2006) argues that practice-based research often departs from common presuppositions used in other scientific methodologies. He points out that in this method practice *is* the principal undertaking, one that is open-ended. A completed "research plan" at the start may cause "an impediment for creative practitioners" (Haseman and Mafe, 2009, p.211), who are more oriented towards discovery. Findings are expressed in "forms of symbolic data other than words in discursive text" (Haseman, 2006, p.103). In my case these "symbolic data" consisted in musical performances and recordings.

Practice-based research also implies a distinct mode of producing knowledge, one that is pragmatic, and which flows out of continuous engagement with techniques or objects, what Bolt (2007, p.29) refers to as "a knowing that arises through handling materials in practice." The act of music making, or *musicking*, as Christopher Small terms it, is an "*activity*, continually changed by its practitioners, not a static object" (Small, 1998, p.9). Practice-based "knowing" is often oriented towards reflexivity about the research process. For example, I developed greater awareness of technical and aesthetic challenges in training (Coghlan, Brydon-Miller, 2014). Music making, particularly improvisation, is also a highly embodied practice, one which draws on years of training, usually through apprenticeship with a "master." Thus, a laboratory approach to improvisation, removed from the embodied experience of performance, may miss some of the experiential dimensions of improvisation that a practice-based approach stresses.

Skaines (2018) suggests that in practice-based research "the creative act is an experiment (whether or not the work itself is deemed 'experimental')" that answers research questions "which could not otherwise be explored by other methods." Whilst some of the music I performed is in an "experimental" genre (e.g., electronic music), my overall approach might also be considered *experimental* in the multiple senses of that term, such as, "trying," "trialling," "experiencing," and "testing." My approach to practice-based research has,

largely, been informed by autoethnographic research, namely in *Lost and Found* but each of my portfolio works have an element of autoethnographic inquiry that reflects on my personal journey as a cellist.

According to Poulos (2021), "*Autoethnography* is an autobiographical genre of academic writing that draws on and analyzes or interprets the lived experience of the author and connects researcher insights to self-identity and cultural rules." My Carnatic works, as well as *Strata*, were also autoethnographic in that in them my personal narrative became a primary tool for investigating and articulating my creative practice.

My research consisted of three modes of practice. The first two I discuss in this section: "Training in Carnatic music on the cello" and "Training in Electronic Music Production." The third mode was recording and performing new musical forms to audiences, which I discuss in the section, "Creative Portfolio."

### Training in Carnatic music on the cello

My initial interest in learning Carnatic music originated in frustrations and insights derived from my prior experiences as a free improviser and as a performer who had played in cross-genre ensembles, as I mention in the introduction. In my prior collaborations, despite achieving a Hindustani "sound" I had played from a score, and never acquired proficiency in improvising. I was intrigued by the idea that in idiomatic improvisation musical ideas come freely in real-time but with calculated preparation. I resolved to train in a South Asian tradition, within the traditional master-guru relationship (*guru-shishya paramparā*). This training was challenging for me, comprised a major part of my practice-based research, and provided skills and insights I would draw on in all three of my portfolio works.

I decided at the start of my PhD that I would train in the Carnatic tradition of South India, not a Northern tradition. In 2018, at the start of my doctoral studies, I contacted Dr Jyotsna Srikanth, a world-renowned Carnatic violinist known to be one of the few Carnatic musicians to play in both Carnatic and Western classical traditions. Her acclaim reflected recognition of her virtuosity as an improviser, due to the importance of improvisation for audiences in South Asian traditions. Jyotsna leads diverse collaborations with musicians from various cultural traditions, such as Balkan, Nordic, Celtic and jazz music. I approached her to request her guidance. She has previously trained adult musicians (though not cellists) who had never trained before in Carnatic music and kindly agreed to accept me as a student.

Before our practical lessons began, I studied Carnatic theory, took an introductory course on the complexities of *tala* (rhythmic cycles), and listened to many recordings from this tradition. I then planned to travel to Bangalore, India for several weeks to stay with Jyotsna and undergo intensive in-person training, as well as attend live performances. I had previously toured India in my ensemble. I had assumed that a new stay in India, with Jyotsna, would enable me to become more habituated to the music. Other musicians had taken this approach, for example, Aubert: "I was brought to understand that if the cognitive process and 'sound material' at play were Indian, their application surpassed any ethnic or cultural limitations; this music became mine, or rather, I identified with it through a kind of alchemical process for which my affinities had revealed the potential" (Aubert, p.81). Aubert's acquisition of Indian music significantly impacted his artistic style, giving rise to hybrid music that is distinctively his own.

For my first Carnatic lessons, I visited London to meet Jyotsna in-person. (Jyotsna divides her time between India and London). However, after the outbreak of the Covid pandemic, we had to move to an online format for much of the duration of my training, though I had more in-person lessons around the time that we were preparing to perform

together on stage. I also began experimenting with recordings of my lessons: every lesson was documented as video or an audio file, allowing me to reflect on our exchanges. At first, this turn of events led me to wonder: would I miss out on the immersive experience Aubert discussed? In the end, though, the combination of in-person lessons in the UK and online lessons – despite raising some technical challenges – proved satisfactory for my overall research and creative aims. I also realised my plan to stay in India, because it was for only a few weeks, would in any case only have comprised a small portion of my overall Carnatic training: ultimately, I would need over two years to achieve the proficiency I was seeking.

From the start, I realised my training and eventual performance collaborations with Jyotsna would raise technical challenges. Firstly, training in Carnatic music traditionally begins in early childhood; as an adult I would thus face obstacles to gaining proficiency. Secondly, I would need to adapt to play "Carnatic cello," as the instrument is largely absent from Carnatic music. In the early 19th century British colonial rule brought the violin to India (as Jyotsna joked on stage, prompting laughter from the audience, the introduction of the instrument was the "only good result of colonialism.") Shortly after, it was accepted as part of the Carnatic ensemble (Benary, 1971) and now plays a significant role as the primary solo instrument in this tradition.

Whilst the cello was also introduced to India at that time, for unknown reasons, it has not made its place in Carnatic performances as the violin did.[iv] There *are* Hindustani cellists (Western musicians adapting the cello to Hindustani music) performing today, such as Nancy Lesh and Asha McCarthy. The Dutch cellist Saskia Rao has a cello designed to play Hindustani music with sympathetic strings. Jake Charkey has developed this style with one other adaptation: he sits on the floor, cross-legged, with his cello strapped to him to avoid it sliding away. While I was encouraged by these precedents, I also realised it would be a challenge to adapt my instrument to the Carnatic tradition, and especially render

ornamentations (more on this below) at the speed normally required. A limited number of Carnatic cello performances have been documented in recent years, such as Praveen.[v]

I also realised from the start that the nature of my collaboration would raise issues I'd have to navigate in my explorations of musical freedom and goal of creating cross-genre work. In my first lessons with Jyotsna, it was apparent that my knowledge of musical freedom differed significantly from hers. For Jyotsna, it entailed producing beautiful melodies or creating intricate rhythmic patterns. She did not endorse non-idiomatic improvisation and disapproved of atonality, the absence of a rhythmic structure, and the lack of "beauty" in music. She queried why anyone would want to listen to such "nonsense." Freedom for her seemed to lie in the ability to perform and improvise to a high standard and realise the authentic essence of the rāga.

However, as I discussed earlier, the meaning of authenticity, and its aesthetic significance, has been contested, especially within the Western avant-garde genre I would also draw on in my creative practice. Moreover, it was unlikely that I would achieve a fully authentic Carnatic improvisation, not least because I would be performing it on a cello. I hoped to expand my musical repertoire by deepening my understanding of rāgas and learn the improvisational patterns characteristic of each rāga. Yet I also had the aim of creating cross-genre music, introducing aesthetic ideas from my own background into our collaboration, and ultimately introducing some Carnatic techniques into my other creative works (on *Strata* and *Lost and Found* ). Thus, from the start there were some aesthetic tensions inherent in our collaboration. Such tensions, I hoped, would be fruitful, and contribute to my reflections on my creative process and the realisation of my portfolio works.

**Pedagogical practice**

At the start of my training, I realised I would need to learn a new system of notation, rhythmic cycles, and musical aesthetics. I also reflected on the concept of "building blocks" of improvisation found in Bruno Nettl's (1974) study of Czech folk music and Western classical music. As I proceeded with my lessons and readings on improvisation, I identified the following building blocks used in Carnatic improvisation: rhythmic patterns and their permutations; melodic passages; emphasis on a particular *svara* (musical note); the way the ornamentations or embellishments (*gamakas*) are formed in certain melodic motifs; and emphasis on specific intervals, and not others. I also realised I would have to become proficient in *alapana*, an improvised prelude to a composition unconstrained by structural constraints. Learning to play *gamakas* on the cello was also a significant challenge as it is one of the most critical aspects of Carnatic music and is said to exemplify the essence of each note and phrase.

Throughout my training, Jyotsna exposed me to traditional Carnatic compositions such as *kritis* and *varnams* and improvisational patterns in a selection of rāgas.[vi] I started from the basics of learning new rāgas, which are equivalent to scales in the Western tradition. Through this process, I explored various ways to interpret the rāga and experimented with the permutations of notes they offered while staying true to the Carnatic aesthetic. I also trained in Carnatic understandings of time and metric constraint. Indian music is known for its rhythmic complexity and many-metre cycles.[vii]

Carnatic music is also a vocal tradition taught mainly by singing, even to instrumental players (Subramaniam, Subramaniam, 2018; Weidman, 2006;
Allen, Viswanathan, Gopalakrishnan, 2004; Pesch,1999). The violin is said to resemble, and stand in, for the human voice. The musician also aims to imitate, and stand in for, the human voice. In Carnatic training, the pedagogical practice is to repeat phrases played by the teacher until the student reaches the point where they can introduce their own musical variations. The

core of my lessons consisted of Jyotsna singing a phrase, which I would then play back on my cello. By copying the *gamakas* note for note, *svara* to *svara,* one must perfect the art of copying the singing style on one's instrument. In the practice of *guru-shishya paramparā* (master-guru) one must adapt one's listening skills to the nuances of the Carnatic style, which for Western ears can be challenging (Klarlund, Brattico, *et al.,* 2023).

I knew my lessons would be taught aurally, but I did not expect that - despite having received excellent ear training in my school years in Poland and being good at it - I would struggle to repeat these melodies. I sometimes felt overwhelmed by the melismatic character and extensive ornamentations *(gamaka*s), the core element of the Carnatic tradition. While the vocal melodies Jyotsna sang to me to repeat were short, the challenge was rendering the complex melodic phrases and nuances of the *gamakas*. This was not the only method of learning Carnatic music. I also learned by mimicking Jyostna's violin playing, closely observing (and video recording in slow motion)[viii] how her fingers move on the fingerboard, especially when rendering *gamakas.*

Including *gamakas* in my creative practice was an important means towards the musical originality proposed for this research. Jyotsna's teaching methods follow the traditional Carnatic approach, and since *gamakas* are an essential part of Carnatic music, they became a large part of my learning process. I waited to introduce *gamakas* into my playing until Jyotsna decided I was ready to do so, which is often the case in the *guru-shishya* learning model: often the guru will withhold knowledge from the student to stress the complexity of a technique and the importance of waiting to progress further (Pesch, 1999).

### ***Gamaka*** **classification in cello practice**

Often misnamed as “ornaments” when referring to them from a Western classical perspective, the role of the gamaka is described by Viswanathan: “*Gamaka* performs an integral rather than decorative function in Indian music. Theoretically, one can define a *svara* simply as a scale degree..., but in practice a *svara* is defined correctly only when considering the *gamaka(s)* traditionally associated with it. *Gamaka* is what gives a rāga its unique character” (Viswanathan 1974:1/150).

In the West, gamakas have sometimes been negatively portrayed as overindulgent, busy, and "schmalzy” (Benary, 1971). But the *gamaka* is an integral part of Carnatic music, which gives the music its character and makes it recognisable. The choice of a *gamaka* is driven by the artistic intent of the performer. Some rules apply to how a *svara* should be led to another *svara* by a *gamaka*, but mainly, they are an individual choice, an improvisation. “They connote sentiment. Often, they cloak simple tunes with no content. These are our attitudes” (Benary, 1971).

As I began to acquire this technique, I grouped *gamakas* into categories, adapting Viswanathan’s classification (seen in figure 1). However, I have reduced it to fewer specifications based on the adaptation of *gamakas* on the cello and based on the practical use of *gamakas* specified by Jyotsna. She also stressed that no musician, she knew of, would ever name the *gamakas* they were performing, they just happened naturally, instinctively. I was eager to explore all *gamakas* from Viswanathan’s taxonomy, though Jyotsna argued that in practice only the three following *gamakas* are in actual use.

1) *Jaru* (up-slide) and *Eta* (down-slide). This classification is not much different to the glissando used in the Western tradition. But as Baron (2020) indicates, there appear to

be more nuances given to the *jaru* in connecting one *svara* with another than to the glissando in Western performance.

2) Oscillation (shake of a finger). As identified by V. Ranganayaki (in Swift, 1990), this gamaka reflects the vocal tradition of *gamakas*. The left-hand movement embodies the essence of the music; it almost becomes a tangible experience to the listener– perhaps due to its similarity to the *vibrato* technique, so often used in Western classical music. In my observation, it is the most used *gamaka* in Carnatic performance.
3) *Janta* (stresses a finger above or below the *svara*). It is created by a minimal upward movement of the finger. From my observation of listening to Carnatic performances, there is a rhythm assigned to this *gamaka*: it occurs at a regular rate of a demisemiquaver-double-dotted quaver ratio.

| | |
|---|---|
| *Jāru/Ullāsita* (Slides) | *Irakka - jāru* - descending slide<br>*Ētra - jāru* - ascending slide |
| *Gamaka* (Deflections) | *Nokku* - stress from above on successive (non-repeated) tones<br>*Odukkal* - stress from below on successive (non-repeated) tones<br>*Kampita* - oscillation<br>*Orikai* - momentary flick, at the end of the main tone, to a higher tone |
| *Janta* (Fingered stresses) | *Ravai* - turn from above<br>*Sphurita* - stress from below on repeated tones<br>*Pratyāhata* - stress from above on repeated tones<br>*Khandippu* - sharp dynamic accent |

*Fig. 1.* Viswanathan (1974) classified them into three sections (Swift, 1990)

In performance, the performer does not consciously think of the *gamaka* they will achieve; it is a quick action based on the melodic notions and of the moment in which the *gamaka* occurs, the moment of improvisation. Performing the *gamaka* is an indispensable

part of improvisation and required me to adapting my cello playing techniques in order to perform them, which I discuss next.

**Technical adaptations to my cello technique**

The cellist's left hand in Carnatic music must have a different orientation on the fingerboard than the violinist's. Because of the larger size of a cello, it will be involved in a more dynamic movement. The method of copying Jyotsna's playing on the violin also presented challenges when applied to a cello. When looking at Jyotsna's hand movement, the pitch placement and finger patterns are difficult to ascertain because of her hand's speed and how minimal the movements between *gamakas* and pitches are. The fingering of the left hand on the Carnatic violin is set, with the student following the patterns closely. Whereas on the cello I created my finger patterns, which not only suited the anatomy of my hand and the size of my cello, but also worked in the context of the desired rendition of *gamakas.*

New York City cellist Jake Charkey, who plays the Hindustani cello, discussed the same issues of the left hand in an online masterclass held on live streaming on Facebook during the pandemic. He, too, rarely uses the fifth finger (the fourth finger on the cello). Gordon Swift argues that using the fourth finger could contribute to the "blurring together" of the *svaras*, thus destroying the colours of the rāga (Swift, 1990). This is an arguable view, which might not take into account differences between players' hand sizes and technical abilities.

Some rules also apply to bowing conventions in Carnatic violin playing. As I mentioned before, the instrument mimics the voice in this tradition, so off-string bowing is not permitted. Using bowing techniques such as col legno or sul pont is also not practised by

Carnatic violinists. The melodic line must be as smooth as a melisma, and the same goes for the pizzicato technique (Benary, 1971). The number of *svaras* on one bow equals the number of syllables a singer sings in one breath. However, I did not follow this rule given that string changes are more frequent on a cello tuned identically to the violin, which plays most of its passages on the top string, in higher positions. The gauge of the pitch also fluctuates wildly on the cello; the finger's movement must be minimally faster than on the violin to get the desired sound of the *gamaka.*

During lockdown in 2021, when my lessons with Jyotsna moved online, Jyotsna decided to buy a cello to explore technical issues and possibilities that were arising for me when adapting my technique to Carnatic playing. She surprised me by this action. Turning up on Zoom with a cello, Jyotsna laughed whilst trying to play a composition we were learning at the time. She admitted the great difficulty the left-hand encounters in trying to successfully carry out *gamakas,* not to mention reaching past the fifth position to play in a higher register. Jyotsna thus expressed her regard for my proficiency in learning Carnatic music, illustrating our working relationship was synergistic.

**Scordatura**

Another essential adaptation was my use of scordatura on the cello. The standard instrumental tuning in the UK is A4=440Hz, whereas some orchestras in the USA and Europe like to tune to A4=441Hz, 442Hz or even 443Hz, which results in a brighter sound. When playing Carnatic music, I turned my cello to Jyotsna's violin (as we were playing in unison), which differs from the standard Western tuning. She follows a pattern of a 5th between the bottom strings, a fourth between the middle strings, and again a 5th between two

top strings, which as a result, doubles the two bottom strings at the top, G3, D3, G4, D4, in contrast with G3, D3, A4, E4.

Most South Indian violinists have more than one violin to suit the tuning to different scenarios, especially when accompanying vocalists with a set vocal range. When

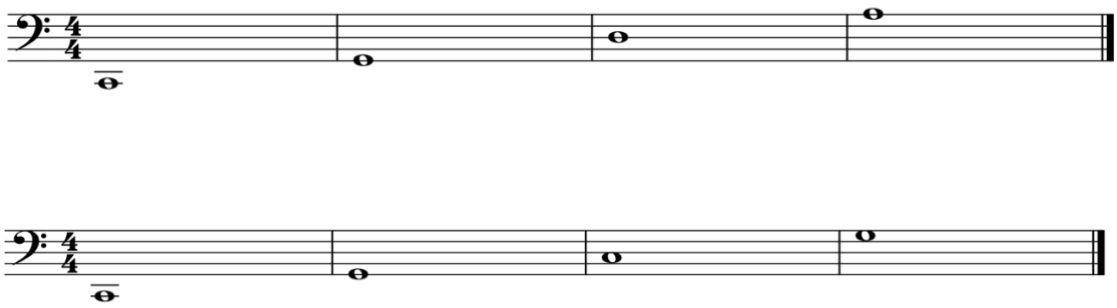

*Fig. 2.* Top line – standard cello tuning. Bottom line – scordatura I used for playing Carnatic music.

Jyotsna asked me to tune my cello following the pattern given above, I knew immediately that this would not work. If I had lowered the bottom string C by a 4th, it would be too loose to play, and if I had put it up a 5th to a G, it would snap. Even bringing the C string up a major second would be problematic given the dimensions of my cello: the tension would be too high, risking a collapse of the structure and broken strings. I stayed tuned to my C and G strings but changed the D and A to C and G by lowering them by a major second, which worked both for my cello and Jyotsna's violin, which sequentially followed my tuning.

The quality of the sound my cello produced was thus distinct. The top strings were at a lower tension, which caused them to sound less bright but not out of focus, with a more matte and warmer colour to the sound. I felt that this setup suited the cello and its already low timbre, and it complemented the violin's tone more so than in the Western violin and cello duo combination. The lowest-sounding instrument in Carnatic tradition is a Sarasvati Veena

which is “a long-necked, pear-shaped lute, [...]; it has a pear-shaped wooden piece” (Pesch, 1999), whose register does not reach as low as the cello does. Thus, what I present through my collaboration with Jyotsna is new in the Carnatic context, for there has not been such a low-pitched string instrument in this tradition. The closest Western instrument to the cello's range adopted by the Carnatic tradition was the saxophone, which entered the country in the late 1800s. Still, it does not reach the low ranges of the cello.

In playing *gamaka*-rich passages, I often chose the higher register of the cello. The low register's action is not as quick reacting as the top register’s, causing a natural delay. I wanted to avoid that as much as possible, given that there are no low-register instruments in Carnatic tradition. I also wanted to bring out the melodies through the unknown, deep-sounding tones. However, because of the slowed-down action, my melodic engagement remained in the mid-register of the cello. Another reason I did not play in the upper register, the one matching the violin, was technical. The higher register was too like the violin’s, and the juxtaposition of the two registers would not have the musical effect as I intended. Adapting to the new tuning system made rendering *gamakas* in the thumb position very challenging. This does not imply that efforts to play in the high register should be abandoned; however, my artistic intent did not require such an approach. I diverged from the high register not solely for these aesthetic considerations, but also to explore Carnatic compositions and techniques in an atypical register.

In Western Classical repertoire, there are many violin and cello duos spanning from Baroque to 21st-century composition. A common thread across this work is that timbral ranges often meet at their intersection with little polarity and contrast. I wanted to move away from this notion because I preferred the low register and the effect it creates when contrasted with the mid and high registers of the violin. Having this opposition in timbre creates, in my opinion, more depth to the overall sound, and gives more scope to move between registers

without being constrained to staying close to the more dominant, soloistic instrument, the violin.

My reasons for tuning the cello to match the violin are twofold. On the one hand, I aim to show respect for the Carnatic tradition and participation in a cross-cultural dialogue of musical experimentation. On the other hand, I wanted to introduce new timbral possibilities for the cello. This move contributes to musical hybridisation while following some essential Carnatic conventions.

**Towards live Carnatic performance**

At the onset, our working relationship was founded on the traditional teacher-student model. For some time, my improvisations, Jyotsna said, fell short of meeting Carnatic aesthetic context and content requirements. My *gamakas* were not consistently executed correctly, and my improvised phrases lacked a distinctly "Carnatic" quality. While I believed I understood the principles of improvisation, my practical execution posed a challenge. However, once my *gamaka* rendition eventually improved and aligned with the genre's standards, Jyotsna became more accommodating of my playing. She invited me to perform solo at the London International Arts Festival, where she acts as the artistic director. The audience's response was mixed, with some more traditional listeners preferring improvisations that hewed closer to the idiom, while others welcomed a fresh approach to the established tradition. My training continued to progress and eventually Jyotsna encouraged me to explore how my newly gained skills and musical ideas from outside the Carnatic tradition could be integrated into cross-genre work with her. The resultant project, *Songs for Cello and Carnatic Violin*, is the culmination of this work, which I discuss in the final section of this commentary.

*Fig. 3.* December 2019, London International Arts Festival performance with mridangam player Janarthan Siva. Jyotsna Srikanth on the left setting up the tanpura box.

**Training in Electronic Music Production (FX pedals and Ableton Live)**

Amplification and electronic music production became an essential part of my creative practice and figures in all three of my portfolio works. These technologies allowed me to create special effects or alter the sound of my cello and to create loops, including during live performance.

Working with sound as music, and music as sound, as articulated by John Cage, paved the way for electronic experimentation in contemporary classical music. Boulez also envisioned possibilities beyond the acoustic realm (Pietro, 2001). I was also influenced by Polish contemporary composers, punk and drum and bass, and the Experimental Studio of Polish Radio (which I encountered as a teenager in Poland). This last project integrated various avant-garde music, instrumental, and electronic influences. Composers working in it were Włodzimierz Kotoński, Krzysztof Penderecki, Bogusław Schaeffer, and Elżbieta Sikora, among others. I was first drawn to their work due to my interest in experimentation and challenging the cello's historical association with a narrow and exclusive view of the Western canon (Ross, 2020). By the time I left high school, their method of blending sounds

was quickly fading as the world rapidly moved towards digital methods, though it was not until 2021 that I began training in music production software.

Before I got to the point of recording *Songs for Cello and Carnatic Violin*, which began in early 2020, my creative practice was limited to FX pedals (or guitar pedals). This is a tool that allows the performer to record, play, and add loops on top of one another as they perform. Although these pedals were initially intended for guitarists, they are now more frequently used by other instrumentalists. I had a straightforward setup of three FX pedals: a multitrack loop pedal, reverb pedal, and delay pedal. Each had an essential function in my creative process, and their use was planned before musical ideas took shape. This method allowed me to create diverse musical ideas but also restricted me due to the nature of the technology compared to Ableton Live, which I would later employ.

I began working with Ableton in the Summer of 2021, just as the Covid-19 restrictions loosened. I attended a one-to-one, five hours session with Simon Stokes from the Subsine Academy of Electronic Sound in Glasgow. Stokes is the only certified Ableton teacher in Scotland, and he knew exactly how to help with my setup. Initially, I worked with a simple looping device and a few sound effects applied to my cello through a DPA microphone and an external soundcard connecting the microphone to my laptop. I then had another five-hour session with Stokes and did a ten-week-long production course in Ableton. The software has a steep learning curve, and this intensive training was necessary to gain the confidence to use it during a performance. It offers considerable sonic possibilities, despite the constraints presented by learning a new technology and the possibility of glitches occurring on stage. The process of my work in Ableton Live was as follows:

1. Record MIDI and audio inputs.
2. Sample audio content.
3. Use built-in instruments and effects.

4. Integrate external VST (Virtual Studio Technology) instruments and plugins.

5. Improvise and manipulate recorded clips in real-time

6. Arrange and edit audio and MIDI clips.

Ableton Live enables music production, composition and live performance using these features. It made possible a new kind of indeterminacy and randomness for me, which is sometimes considered an important aspect of improvisation. Because of the randomness of the creation of sounds, each of my live performances with Ableton differed.

My use of this software reflects a growing interest among live performing musicians across a range of genres in "recordivity," "where the performer not only records on stage but also integrates this with the composition and arrangement process" (Knowles and Hewitt, 2012). Whilst electronic technologies and pre-recorded loops have sometimes been denigrated in classical music as "impure," or of lesser aesthetic value than live acoustic performance, the digital revolution in music has challenged these assumptions. As Knowles and Hewitt (2012) observe: "[the] concept of computer musicianship where notions of virtuosity can be located in a musician's interaction with digital tools. The wave of new performance controllers often provides the platform to make the virtuosity of manipulating these new digital tools visible to an audience while arresting doubts about 'liveness' in performance." Such "computer musicianship" can give the audience the opportunity to experience the performer's studio process.

In Carnatic music amplification became the norm in performance at the start of the 20th century (Allen, Viswanathan, Gopalakrishnan, 2004). However, my use of electronically mediated loops and harmony (see "Creative portfolio" section) risked being perceived as a foreign and unwelcome innovation. In my Carnatic works, Ableton Live and looping techniques helped me to create a distorted sound on the cello that moves away from tradition, while preserving the flow and idea of a rhythmic cycle. The loops provided with

me with a cyclic foundation for the material that would come on top of the loop. It is a concept used by many composers and musicians who use looping pedals, for example, Max Richter, Philip Glass, Steve Reich, Poppy Accord, Anna Meredith, Zoë Keating, and Imogen Heap.

Introducing these technologies into a Carnatic context, though not unprecedented, potentially threatened the authenticity of my performances, but also helped me to realise my artistic intent. At the same time, electronic music itself might be considered loosely to be a genre, one with a free and experimental ethos, and as such it inspired my creative practice and forays into cross-genre music, which I next discuss.

## IV Creative Portfolio

### *Songs for Cello and Carnatic Violin*

My album with Jyotsna, *Songs for Cello and Carnatic Violin,* was recorded in May 2020, released online at the Festival Fringe in 2021, and premiered at Celtic Connections in 2022, after which we toured it across Scotland. This was the fruit of my training in Carnatic improvisation, but it also incorporates other ideas and techniques from my creative practice. My primary idea for the portfolio piece was to record nine Carnatic compositions I had been learning with Jyotsna as solo works, accompanied by overdubbed cello parts playing a dual role: to replace or mimic the rhythmic element of Carnatic music and as harmonic juxtaposition. Over the course of realising this project I also reflected on the possibilities and constraints of cross-genre performance and idiomatic improvisation.


*Fig. 4.* Royal Glasgow Concert Hall, our duo's premiere at Celtic Connections, January 2022.

The Covid pandemic led to a major change in our plans for the collaboration. My plans to travel to India became impossible, and most of our collaboration had to happen online, by exchanging pre-recorded tracks. The Covid lockdown also created challenges: my son at the time was two-and-a-half years old and at home with me, and my pre-pandemic focus was becoming blurry. As we prepared public performances, we also had to reframe the nature of our collaboration, which had started with the hierarchy implied by the traditional teacher-student relationship (*guru-shishya*). This left the decision-making regarding artistic aspects of performances and recordings unclear. Had I followed a purely conventional route of learning Carnatic music, the performances would not have materialised because I would have been constrained by the student position. While I had stated to Jyotsna from the start my intent to create cross-genre work, we each had different expectations of what that should look like.

My original idea was to integrate Jyotsna's knowledge of Western classical music into our performance by exploring the timbral qualities of the amplified violin. This exploration of sonic possibilities is central to the performance practice of violinist Emma Lloyd (with

whom I collaborated on *Strata*): “The addition of amplification . . . makes a difference to what palette of sounds is available and can use some of the timbral qualities of the instrument that would otherwise only be audible to me” (Lloyd, 2017, p.53). During the collaborative process with Jyotsna, I also envisioned that she would incorporate various Western techniques, including pizzicato, sul ponticello, and col legno, to add sonic diversity to the project.

However, Jyotsna remained faithful to the Carnatic tradition and did not deviate from its established techniques, a theme in our collaborative discussions. In addition, Jyotsna possessed a distinct perspective on the desired sound of the cello. Her viewpoint was rooted in the Carnatic violin's history. She expected me to try to apply adaptations that the violin underwent to the cello. However, after running into technical difficulties I became hesitant to accept this approach. We also discussed how to keep the Carnatic tradition fresh and continue imparting it to young people, who are increasingly drawn to other kinds of music, a consideration which informed Jyotsna’s openness to change. In the end I found my own method of adapting the cello in order to be able to improvise in the Carnatic idiom (discussed earlier).

I found some instructive points of convergence and divergence between my research and the doctoral work of Alice Barron (2021), a London-based violinist who examined the incorporation of Carnatic violin techniques in the contemporary music scene in London. Using an autoethnographic approach she examined social and psychological interactions amongst musicians, knowledge dissemination, and creative collaboration in the context of cultural exchange (Barron, 2021). Barron’s research, like my own, entailed collaborative work with South Indian musicians, including Jyotsna Srikanth. As I do in this project, Barron reflects on the potential - sometimes unrecognised - and the limits of cross-genre collaboration. For example, she found that one limit to her collaboration with Jyotsna

stemmed from the fact that Jyotsna "maintained her position as the guru whose decisions were typically authoritative and not explained or justified" (Barron, 2021, p.174). Our contexts of research and research objectives also had notable differences. Exploring the violin's history in colonial and post-colonial India, Barron sees the violin as "a point of shared knowledge between people from different musical and cultural backgrounds, breaking language barriers." In contrast, the absence of the cello in the Carnatic tradition introduced a disjuncture in my collaboration with Jyotsna, possibly fostering her openness to incorporating non-traditional elements, such as harmonization and electronics, into our joint work. At the same time, my commitment to the traditional guru-shishya relationship, especially in terms of imitative playing, enabled me to acquire sufficient improvisational proficiency to perform alongside Jyotsna, which may have further facilitated her acceptance of cross-genre elements in my performance. My research aims also differed from Barron's. While she focuses on psychological and social mediation within group collaborative practices, my attention centres on the role of improvisation in fostering artistic originality, aligning with my primary goals of expanding cello repertoire and creating original cross-genre works.

One of my aims in training in Carnatic music was to find freedom through conforming to the constraints imposed by idiomatic improvisation. Reflecting on the album with Jyotsna, I feel I realised this aim in part, but also encountered new constraints. For one, Jyotsna expected a high degree of purity or authenticity during performance. The cello has been considered historically in the West a "secondary" instrument (as the bass instrument), limiting to an extent the nature of the improvisations I could offer when playing with Jyotsna.

As with any successful collaboration, I felt we ultimately found a creative middle ground. As Jyotsna put it to me during a lesson, "collaboration is like marriage, you have to compromise; otherwise, it will not work." Some of my initial ideas I was able to introduce, but only to a limited extent, for example, dynamics. I had observed that dynamics, which are

crucial and widely discussed in Western classical performance, appear absent in Carnatic performance (Benary, 1971). I intended to incorporate dynamics into the performance with Jyotsna to generate tension and stress the rāga elements. Dynamic diversity, I felt, could effectively stress specific components of a rāga, as opposed to relying solely on the *gamaka* for this purpose. However, in the end I only was able to use dynamics in a quite limited way. On the "Improv" track, for example, I started off with piano dynamics, building up gradually to forte to emphasise the harmonic progression of the melodic line. On reflection, I believe the recording of *Songs for Cello and Carnatic Violin* might have benefited from a broader dynamic range.

One way the collaboration I felt became successfully cross-genre was through my use of bowing techniques, such as ricochet, col legno, and sul ponticello, which I'd learned in my (Western classical) earlier training but which are not generally used in Carnatic music. For example, in "*Vatapi Ganapatim"* in rāga Hamsadwami (track number 2), I used effects on my cello together with sul ponticello. As these techniques did not disrupt the purity of the rāga, Jyotsna readily accepted them.

Most importantly, I felt I achieved a desired degree of originality in my introduction of harmony, whilst also trying to satisfy the rules of idiomatic improvisation. It is crucial to note that there is no use of harmony in traditional Carnatic music, excluding fusion music such as the work of John MacLaughlin. Introducing harmony thus raised the question of whether the songs would satisfy Carnatic criteria of authenticity, creating some aesthetic dilemmas. As there was no single model to follow, I was unsure to what extent I should import harmonic techniques from Western classical idioms or try something else.

Ultimately, I decided I would try to use harmony in a way that followed the rules of the rāga. Each rāga has a specific rule the musician must follow to render it correctly. For example, rāga Jaganmohini has the following svaras in the ascending order: S, G3, M1, P,

N3, S and the descending order: S, N3, P, M1, G3, R1, S. The R1 cannot, under any circumstances, enter an ascending melodic progression; it can only appear in the descending order. This is one example of a straightforward rule. My aim was to follow the rules of each rāga, whilst trying to create exciting and engaging harmonic interactions with Jyotsna's part.

This approach differed from the one Jyotsna had used in another collaboration, where her collaborator had used harmony, but abandoned the rules of the rāga. I wanted to try to make use of the training I had received in improvisation in my performances and to see what would result. Keeping to the rāga's rules meant I had fewer harmonic possibilities to apply, making it more difficult for me to improvise in the moment, but I felt that in doing so I stayed closer to my original artistic intent to learn idiomatic improvisation.

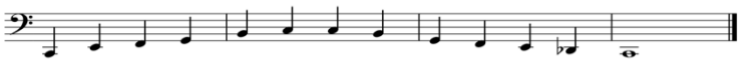

*Fig. 5.* Rāga Jaganmohini in Western notation in my adapted tuning.

The process comprised taking the central part of the composition, played by Jyotsna, as the foundation of the piece, and then adding the cello as the accompanying instrument, filling both rhythm-bass and harmonic parts. When arranging the cello parts, I initially recorded improvisations over the foundation melody recorded by Jyotsna using GarageBand. The harmonic layering was achieved by trying out melodic and rhythmic variants, using a trial-and-error method. When we got to the recording studio after COVID-19 restrictions loosened in February 2022, I was by then familiar with this process, which allowed for relatively straightforward recording sessions; we recorded the album in two days. After completing our parts, Jyotsna decided that adding percussion to the album would sound better. Sunaad Anoor recorded *kanjira* parts in a studio in Bangalore, which were then mixed into our recordings by Dave Lloyd. This was a decision where we leaned toward tradition, one of many negotiations during our collaboration.

Music in every culture expresses repetition, which can have diverse resonances: the life cycle, seasonal changes, daily routines, a heartbeat. We are drawn to looping patterns as they become familiar and meditative. “Repetitiveness gives rise to the kind of listening we think of as musical. It carves out a familiar, rewarding path in our minds, allowing us at once to expect and participate in each phrase as we listen. That experience of being played by the music is what creates a sense of shared subjectivity with the sound [...]” (Service, 2016). In my Carnatic work, as well as in the other pieces, I draw on these aspects of repetition in order to create a meditative experience for listeners, allowing them to expect and participate in each phrase as they listen. I also used loops to engage audiences in unfamiliar idioms, such as Carnatic music, where the rhythmic cello loop might be the only point of reference that immediately engages the listener.

Despite the departures from my initial plans and expectations, I felt the album realised my intent to draw on my training in idiomatic improvisation, contemporary music, and electronic sound processing to create original cross-genre work. I had fulfilled the goal of following the strict rules of rāgas, learned traditional compositions, and become proficient in improvising. However, the sound was also aesthetically distinct from traditional Carnatic music, due to the presence of the cello, and adaptations of the instrument, my bowing techniques, use of dynamics on some tracks, and especially the use of harmony, which added to the rhythmic movement of the music.

*Fig. 6. Songs for Cello and Carnatic Violin* album cover (photo by Kris Kesiak).

### *Strata*

I recorded *Strata* with Emma Lloyd, a violinist, in September 2020. It is another example of how improvisation can unfold in a collaborative setting. This album was recorded in the same studio as *Songs for Cello and Carnatic Violin,* however, the rules we followed were less strict. Unlike with Jyotsna, my cello was tuned in standard Western tuning. We used FX pedals for a variety of sonic effects and to create loops. The project's objectives were to explore the sonic possibilities of our instruments, the interplay between the cello and violin, the studio's acoustics, and the utilization of FX pedals during the recording process.

*Strata* reflected my understanding of improvisatory schemas, microtonal passages and cyclical characteristics I had learned studying Indian music. The foundation of *Strata* was the call-and-answer action. Some argue this approach can be to the performers' detriment or act as a constraint to one's improvisation (Bertram, 2021, p.25). Bertram argues that collaborative improvisation can cause counteractions, an antagonism “that ends in a lack of community” (ibid.). This collaboration, I felt, is an example of successful communication, with each of us reacting to the “revelation of possibilities in a creative process” (Valgenti, 2021, p.70) and the alterity of the material we each presented. Perhaps Bertram's observations were based on collaborations where the communal aspect was absent, musicians' intents differed, and interpersonal aspects of collaboration interfered with the activity.

In *Strata,* as in *Songs for Cello and Carnatic Violin,* I employ the notion of cyclical narrative. A rhythmic or melodic element pulsates throughout the track, beginning and

concluding it. Our use of the loop extends beyond rhythm or background creation, but rather enables the development of the sound surrounding it and the overall progression of the composition. A loop changing with time can be described as an evolving cycle. As time progresses, the loop (unchanged or with small variables) is perceived differently each time it returns. It can be viewed as creating a dynamic interplay between repetition and change, where the loop serves as a foundation for creative exploration and experimentation. According to Adès and Service (2018), due to the temporal nature of music, the past influences how one perceives music in the future. Every moment is impacted by what came before. Essentially, one can never return to the same point in a musical piece once it has passed, and each subsequent moment is influenced by what has already transpired.

The use of FX pedals and studio acoustics serves not only as a medium for musical creation but also as a tool for introducing randomness and variation within, and interference to, the cyclical structure. As creators and performers, we seek to enter the "creative flow," during which, as Csikszentmihalyi (1996) points out, we become less self-conscious. The process gives us pleasure in the activity itself, which we may desire the listener to experience. As my improvisation over a loop unfolds, my perception of time at first becomes heightened, creating tension by raising the question of how long it will persist. But I found that over time my awareness of the loops' temporal duration lessens, and I experience more of a flow state.

In this collaboration I felt more "freedom" to integrate different musical and personal influences. The underlying pulse-like beat in "Onyx," created through tapping the cello's body with delay and echo effects on FX pedals, was inspired by the sound of a heartbeat, a fundamental cyclic pattern accompanying our everyday lives. Track number two, "Garnet," has a looped ricochet bowing, falling down the cello strings towards the bridge, creating an anchor for subsequent ideas which follow onto the next tracks. Incorporating FX pedals and electronic effects was intended to create a more immersive, cyclic, and rich sound

environment.  In this work my improvising here was freer than in my Carnatic pieces, but I also sometimes felt paralysed by too much choice or felt constrained by the “call and response” format without idiomatic rules.

*Fig. 7. Strata* album cover, designed and handmade by Emma Lloyd.

*Strata* mixes musical layering and cyclical narratives inspired by geological stratification, creating an auditory representation of sedimentary structures through sound. The album's title and each track's nomenclature draw inspiration from geological strata and gemstones, metaphorically representing sedimentary rock layers. It employs layering sounds and looping sequences to echo the formation of sedimentary layers over time. The cyclic nature of each improvisation resonates with the foundational role of the “tala” (rhythmic cycle) in Indian classical music, which, at the time of recording, I was already learning and playing in my Carnatic collaboration.  My contribution to *Strata* also resonates with my lost layers of ethnic heritage, e.g., Roma and Jewish ancestors in Poland, and much more distantly, the Roma people’s Indian origins (Giménez, 2019), and thus the creative and personal cycles I went through while doing this research.

***Lost and Found: A Cellist's Journey***

During the unforgettable lockdown in the summer of 2020, I started working on *Lost and Found: A Cellist's Journey*. This is an original, solo work, which I premiered at the Fringe Festival 2022 as part of the Made in Scotland Showcase. I describe it in the programme: "Drawing on my background as a Polish cellist with Roma and Jewish heritage, my show explores how identities are 'lost' – and 'found' -- in music and my life as an artist." Centred on live cello performance, the work also features a film projected on a screen behind me, electronic tracks, and spoken word, a narrative about my musical education in Poland, my family, and my musical journey. From my perspective as a composer and performer of this work, it is a work-in-progress in that all the short pieces are semi-improvised, and thus each performance is different.

I also view the work as cross-genre in that it draws on diverse musical sources, many of personal significance to me. One musical inspiration, which I encountered as a teenager at the Warsaw Autumn Festival, is the so-called "Polish School" of classical music of the Communist era. At the time this was viewed as an oasis of Western art behind the Iron Curtain, sometimes repressed by the regime, sometimes derided as derivative, and now often overlooked outside of Poland. Other influences include Roma and Jewish folk traditions, the contemporary Scottish scene, electronic music, and found sound samples.

The show's title refers to the losing and finding of my musical and ethnic identities. It also evokes the physical space of a "lost and found," often located in train stations, which in the show I indicate with images of personal objects. In the Western tradition it is the cello (not the violin, as in Carnatic music) which is said to be the instrument that most resembles a human voice. My intent was for audiences follow this "voice" through otherworldly soundscape where the ethereal textures of the Polish avant-garde, the raw melancholy of folk, and the pulse of electronic cello tracks mingle.

While *Lost and Found* is the only solo musical work in my creative portfolio, it was nonetheless also a collaborative project. The performance was accompanied by a film, created together with my friend Ania Leszczyńska, a Polish animator living in Edinburgh. It is montage of my own and my family's "home movies," contemporary footage of Poland and Scotland, and archival news and other sources of mainly urban scenes in Poland. I selected most of the footage, and Ania created effects and edited the film. Ania grew up in Poland during the same period as I did. Her comprehension of my thought process, often articulated through music rather than words, created an ideal collaborative environment. Because of the semi-improvisational nature of *Lost and Found*, the duration of the work varies, allowing different correspondences between film and music during each performance. Like the music, the film conveys nostalgia and the disquiet evoked for us by the political and cultural landscape of Poland.

In creating this work, I draw on my distinct memory bank of sounds, phrases, rhythms, and sensory experiences from that era. The Experimental Studio of Polish Radio significantly impacted my creative voice in this work. This post-war movement in Poland sought to distance itself from the Soviet culture and science and reached to the West for new ideas and technologies (Crowley, 2019). Warsaw's classical music scene was then, and remains, the hub of Polish music culture, leading to competition with institutions in other cities, such as my hometown of Lodz. In this censored environment, the development of the Experimental Studio and the Warsaw Autumn Festival became highly influential across the country's intellectual and cultural milieus. For many musicians, including myself, discovering these two movements was a revelatory experience, particularly because they were still emerging as niche forms in the 1990s. However, the technologies used in the Polish Radio's Experimental Studio were exclusive to those involved in this project and inaccessible to ordinary music students like myself.

Concepts of improvisation and freedom were important in these developments and informed the retrospective mood of *Lost and Found*. Boguslaw Schaeffer, who was the proponent of "polyversional music", allowed much freedom of interpretation for the performer. This idea is linked to another theory from that period - Open Form – proposed by Oskar Hansen, a Polish artist and designer, who heralded the dialectical capacity of open forms, which "allow a mutual correspondence between discipline and freedom, a balance between fixed and movable elements, between fixed, predictable material and transient, unforeseen constellations" (Crowley, 2019, p.26). The Open Form and polyversional music were part of the contemporary discourse on improvisation and the freedom it could enable.

The musical performance is autoethnographic, not only in its musical form, but in its use of short, spoken word reflections between tracks. I begin with my first musical experiences, which unfold into an autobiographical narrative. There is a twofold portrayal of the self: a student-cellist and an undefinable self. Musically, I also reflect on exile, cultural assimilation, and the search for identity. "Skye Boat Song," for example, is an amalgamation of the well-known Scottish song and a Polish lullaby, "Kotki Dwa," which my mum used to sing to me, and which I sang to my son, evoking the themes of belonging and hybridity.

The musical material in *Lost and Found* was predominantly formed in a mood of nostalgia and melancholy. I was also responding as an emigré to contemporary Poland. My family's Jewish and Roma heritage was "lost" or actively suppressed, though I was exposed to the folk music of these groups. Currently, the musical traditions of these ethnic groups are often disregarded in Poland, as nationalist-populist movements emphasise the ostensibly "pure" Polish elements in folk music. To reference this issue, I have distorted traditional folk song samples in tracks "*Lowicz"* [ix] and *"Who am I?."*

When creating *Lost and Found,* I undertook a reflective exploration of my identity, where my lived experiences and memories became the primary reference. My goal was, through storytelling, cultural research, and reflection, to provide an intimate yet critical perspective on the interplay between individual experience and collective history. Researching my heritage was an ongoing process that started in my twenties. For as long as I can remember, my family has discussed and debated our origins on both my mother's and father's sides, which had been concealed out of shame and fear. Some of my mother's assimilated Jewish family members came from Bavaria and moved to Poland in the 1930s. Despite his emigration, my maternal grandfather was drafted into the Hitler Jugend, which he fled, and then escaped to Britain, where he joined the Polish Army. My father's family, whom I refer to in *Lost and Found,* had obscure origins. After decades of stories at family gatherings, hushed joke-like statements about Romani roots, and searches of databases of birth and death certificates in the Eastern parts of Poland, we found out from my father's aunt, on the last day of her life, that my great-great-grandfather was Roma. The track “Lowicz" is named after the last place he was known to have lived. My memories of Lowicz are faint; we would drive up there from my home city, Lodz, to look at the old mill he supposedly owned and the idyllic fields surrounding it. In this track, I use a sample of a folk song, “Lowiczanka Jestem” (“I am (a woman) from Lowicz”):

“Łowiczanka jestem, dana, dana, dana,

Mogę śpiewać, tańczyć do białego rana.

Łowiczanka jestem, z samego Łowicza,

Od innych panienek wianka nie pożyczam

Każda Łowiczanka ma jak gwiazdy oczy,

Każdego chłopaka od razu uroczy”.

“I am a woman from Łowicz, nana, nana, nana.

I can sing and dance till the break of dawn.

I am a woman from Łowicz, from Łowicz itself,

I don't borrow a wreath from other maidens.

Every woman from Łowicz has eyes like stars,

She charms every boy right away.”

I chose this particular part of the song for its melodic aspects and its expression of folk themes from this region of Poland, such as the 3/4 meter, a dance-like character, and its amorous context. I open “Lowicz” by playing this sample, distorting it slightly in the middle by using reverb and echo effects in Ableton Live, which leads to a pre-recorded motif I play on the cello for eight bars. I then start playing the main melody, which turns into an improvisation in the style of folk from the Mazovian part of Poland. This is a light and playful composition, with a bitter-sweet reference to part of my heritage. It contrasts with the melancholic and anxious character of most of the other tracks, which reflect the socio-political situation of the Poland I grew up in. In 1989 the Berlin Wall came down and the Solidarity movement won the Round Table talks, which ended the communist era. In the film accompanying *Lost and Found*, I used archival footage of political debates featuring Walesa and his victorious moment. Though 1989 marked the beginning of democracy in Poland, in the following decades the freedom of speech deteriorated.

In *Lost and Found* I tried to create a parallel between Poland's sociopolitical paradoxes (former Solidarnosc leaders are now the leaders of the right-wing Law and Justice, and those who defended communism speak in support of democracy) and personal ones. On the one hand, as a teenager I was a classical music student in a sheltered and elitist environment; on the other, my beliefs and tastes were being shaped by a punk subculture. I present this struggle in "Distorted View" and "Layers."

"Prawa Kobiet" ("Women's Rights") is a portrayal of current political affairs, namely the abortion laws implemented in 2020 in Poland.[x] For this track I used an audio sample of a parliamentary speech – cut into short, repetitive succession to emphasise the words – "Women in Poland. You think that we will be silent, that we will not protest, that we will not speak loudly about this. But we will, but we will shout about it very loudly. [Another speaker] On behalf of those Polish women and the Civic Coalition Club, I submit the management of the Citizens' Project […]"[xi]. On this track I used GarageBand to record all cello parts and add sound effects to the recorded material. I also used other techniques that might be deemed experimental, such as sound sampling, now a common technique in electronic music production. My samples include field recordings, streets sounds, and children at play. I also incorporated samples from a video recording captured by my family in 1989, wherein the speech of my late grandmother was looped and distorted to create a unique auditory effect on the track.

*Fig. 8. Lost and Found* at the Edinburgh Festival Fringe, 2022 (photo, Anna Leszczynska).

I also view this work as experimental in the meanings I referred to above: trying, trialling, experiencing, and testing. The musical material was all made, unmade, and remade. While my live performance was semi-improvised, it was not "free," but rather constrained by the fact that I layered it over between two and five pre-recorded tracks used Ableton. I used standard cello techniques to create loops, which also progressed over time, for example, the melodic progressions of bass lines on "Levi and Nadia," played on the cello and kalimba.

Working on *Lost and Found* freed me further in my creative process. In this work, emotional freedom became in a sense the essential building block of my practice-based research. Coming from a Western classical tradition, where the emotion in music is dictated through a musical score or directed by a conductor, coach, or teacher, it felt like a liberating part of my practice, though it could also result in an excess of freedom, a confusion caused by the seemingly limitless sonic possibilities presented by the range of genres and electronic effects.

My response to the challenge of "freedom" was to build on what I had learned from my Carnatic work. As before, I used pre-recorded melodic and rhythmic loops, building on the importance of cycles in Carnatic music. These loops and pre-recorded sounds created a structure where I could improvise, giving me a partial creative strategy for the problem of excess freedom. The Carnatic training also gave me tools and inspiration to create more complex rhythms in these works. The Roma and Jewish folk traditions, combined with the cross-genre elements, allowed me to work within a semi-idiomatic form on some tracks, balancing freedom, and tradition.

*Fig. 9.* Blue light on the left coming from MIDI foot pedal, which triggers track changes and sound effects in Ableton Live (photo, Kris Kesiak).

## V Conclusion

Looking back on my PhD work I see it as a journey where the personal and the musical intertwined, which became the theme of *Lost and Found*. The creative artefacts of this PhD are original, cross-genre musical works, each of which uses improvisation with various degrees of freedom. My work aims to contribute to the cello repertoire and possibilities for the instrument. It introduces the cello to Carnatic music, especially Carnatic

improvisation, and conversely, the Carnatic tradition to cello performance. It yields practical knowledge of electronic techniques especially when they are used in the context of cross-genre collaboration and improvisation.

My PhD also responds to the decline of improvisation in Western classical music and the growing interest in incorporating improvisatory elements into practice among professional performers, teachers, and students (Campbell, 2010; Clarke, 2002). It generated some insights into essential building blocks of improvisation in the Carnatic tradition. I hope my work in improvisation will stimulate further interest in improvisation and education in the subject. I also hope my adaptations of cello playing techniques in order to improvise in the Carnatic idiom will broaden interest in this area amongst cellists as well as other prospective students seeking to learn an instrument that is not already used in the Carnatic tradition.

My research also aims to contribute to ongoing conversations about the aesthetic value of improvisation. Free improvisation played a vital role in artistic avant-gardes over the last decades. But for many, the inherent aesthetic constraints of creating sound sequences without associations with any existing musical idiom have also become apparent. My works seek to invigorate the possibilities of experimental improvisation through training in traditional forms. I trained to improvise within parameters recognised as artistically valid by the "one who knows" (*samajdarlok)* while introducing cross-genre and experimental aspects. The resulting cross-genre works all used various forms of improvisation.

*Songs for Cello and Carnatic Violin* emerged from a remote collaboration with Jyotsna during the COVID-19 pandemic. The primary idea for the portfolio piece involved incorporating harmony within traditional Carnatic parameters through strict adherence to the rules of a rāga. The absence of the cello in the Carnatic tradition made it challenging to become proficient in improvising. Yet, of the three works in my portfolio, this one could be considered to have the most idiomatic form of improvisation. However, the overall sound

also had elements – such as the use of harmony, bowing techniques, and electronic sound processing-- that made it cross-genre. My creative process involved layering cello parts over Jyotsna's foundation melodies using a trial-and-error method. Using Ableton Live in this work created a different kind of freedom and constraint in creating musical ideas. The collaboration had productive tensions, as I experienced both a new freedom of expression at the same time as constraint due to the difficulties of staying within the Carnatic idiom. The collaboration also I felt advanced my musicianship and led me to push my experimental work further.

In *Strata,* Emma and I explored free improvisation, collaboration, and electronic techniques in search of immersive soundscapes. We were inspired by the notion of cyclical narrative and the dynamic interplay between the repetition of the same musical material and change within it. We aimed to synthesise musical genres, styles, and technological resources. Our exploration eclectically took inspiration from diverse sources, from programmatic music to video games to electronic dance music. Of my three works the improvising here was the most "free," yet paradoxically, as I anticipated, I also experienced the constraint of "too much freedom," becoming overwhelmed by choice at times. The "call and response" format also imposed a different kind of constraint, as I felt that I did not want to diverge too far from what Emma was playing at any given moment.

The most autoethnographic of the works in my portfolio, *Lost and Found* is a personal and transformative musical journey wherein I examine my identity, influences, and relationship with my homeland, drawing inspiration from the Polish School of contemporary music, the Experimental Studio of the Polish Radio, and other influences. The work is characterised by a departure from conventional music forms, incorporating idioms from Jewish and Roma Gypsy folk and utilising sound sampling techniques. By exploring genre and improvisation boundaries I discovered a new freedom of artistic expression, and gained

what I believe will be for me a valuable perspective for future work. This work also highlights for me the importance of emotional vulnerability in the creative process.

Often said to be the most abstract of all the arts, and thus able to transcend at least in part barriers of language and culture, music is a narrative of human experiences. My pursuit of cross-genre music led me to reflect how musicians are formed by, and contribute to, a broader community. As musical genres evolve, they are shaped by personal experiences, talents, and styles, which are expressed in both idiomatic and freer forms of improvisation. This interplay between individual and collective creativity stimulates the diversification of musical genres, allowing for the emergence of novel artistic expression, in both so-called traditional and avant-garde forms.

I realised, quite late in my PhD, that the overall trajectory of my research took the form of a key musical form I explored in my creative work: the loop. My two initial problems – improvisation and cross-genre work – seemed to loop into each other. At the start of my research, I set out to cross genres in order to learn new improvisatory techniques and skills. Moving outwith my comfort zone of free improvisation I began to work within the stricter rules of a tradition that prizes idiomatic improvisation, which gave me new confidence to improvise before live audiences. This improvisatory proficiency in turn gave me new tools, which I felt helped me to find more musical freedom and realise my artistic intent of creating original cross-genre music.

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[i] https://warszawska-jesien.art.pl/en/2022/o-festiwalu

[ii] Simon Thacker's Svara Kanti Ensemble in which I played fusion of Punjabi songs arranged for voice, guitar, violin, cello and tabla https://www.youtube.com/watch?v=H76JJ9ufOil

[iii] *Trikala* album with Simon Thacker's Svara Kanti Group https://open.spotify.com/album/2OKDONwYu5ofYREpGq0glk?si=L2y7ytkPRw6981_AEzW4oQ

*Abre Ramce* from Songs of the Roma project with Masha Natanson and Simon Thacker https://youtu.be/z80jTq5IN5M

[iv] Gabriel Dharmoo https://youtu.be/OUSPDa5IVBY

[v] https://youtu.be/1jjdawI_FWI

[vi] Each rāga has a specific ascending (Arohana) and descending (Avarohana) set of notes, sometimes with different notes used in each direction, and varying number of notes. The scales are composed of a specific arrangement of notes (Svara).

[vii] However, one exception to this would be the *Alapana* or *Alap* an improvised introduction to a rāga, that is performed before the actual composition. In *Alap*, the performer is expected to reveal the rāga's unique melodic personality and mood. It's a free form exploration that demonstrates the performer's creative ability, imagination, and knowledge of the rāga, while adhering to its traditional rules.

[viii] A short video of Jyotsna's hand attached to Supporting Material folder

[ix] https://youtu.be/1VfcM7BXSg4?t=72

[x] https://youtu.be/e8_hnKT4AaU?t=55>

[xi] Kobiety w Polsce. Myślicie, że będziemy cicho, że nie będziemy protestować, nie będziemy głośno o tym mówić. Ale my będziemy, ale my będziemy krzyczały o tym bardzo głośno. [Another voice] W imieniu tych Polek i Klubu Koalicji Obywatelskiej, wnoszę zarzadzenie Projektu Obywatelskiego […]"

## Glossary

**ālap / ālapana** (Sanskrit) an improvised introduction/opening to a composition, free of pulse or meter.

**gamaka** (Sanskrit) ornamentation, embellishment.

**guru (**Sanskrit) teacher.

**guru-shishya paramparā** (Sanskrit) master-disciple tradition.

**Carnatic music** classical music from South India (Tamil Nadu, Karnataka, Kerala, Andhra Pradesh and Telangana).

**Kanjira** South Indian frame drum.

**Kriti** musical composition.

**Samajdarlok** (Hindi) "one who knows" (Wade, 1984).

**Svara** pitch

**Rāga** *(Sanskrit*) translates as colour or feeling. Rāga is a set, a combination of pitches (Svaras) arranged in ascending, *Arohana*, and descending, *Avarohana*, order.

**Tāla** meter, pulse.

**Varnam** musical composition.

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