Archives of change

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Change

An Art Conservation
Studies Approach
to Innovating Classical Music

Denise Petzold

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Dissertation

by
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Aachen, May 2023

1
Introduction: Between music and the museum

1.1 Classical music is dead; long live classical music!

> I am sitting in a room at the Conservatorium Maastricht. It is a bleak day in November 2019. The cello teacher stands in front of his student Isabella.[1] She is supposed to learn an excerpt of Richard Strauss's *Ein Heldenleben* for an upcoming audition for a famous European youth orchestra. The excerpt is not even a page long. He addresses her: 'You have to do everything exactly the way they want – like a machine. It's not like the Haydn piece where you can do the shift a little bit later. No. There's no room here. And if you manage to get into the last round, this will decide.' She nods. They continue to play – that is, he starts to correct her rhythm, interrupts her, plays for her again on his own cello, demonstrates. He instructs her on which parts of the bow she should play when – when to go to the tip, when to stay at the frog, how much weight to use, and where the weight is coming from (her elbow). He walks through the excerpt efficiently, quickly; he corrects her fingerings, helps her adjust so that she can play the notes as precisely as possible. Then he says to her: 'This excerpt is strange. It usually ends at an earlier point… It's quite long. Are you sure that this is the right one?' She responds that this is the document that the orchestra sent her. As Isabella starts over, the teacher looks over her shoulder and into the score, frowning silently.

This short observation from my fieldwork describes a common situation in which classical music is taught at the conservatoire nowadays: in preparation for auditions, an indispensable element of any musician's professional career. Auditions are a good example to show what young musicians need to do to perform musical pieces in concert halls all over the world. At home, Isabella is meant to practise these few lines until her hands, her arms, and her ears are tired of it, until her body is strained and her fingertips are bruised. She will make annotations in her score to remind her of what to look out for. She might record herself, with an audio device or even on video, to better understand potential deviations in her movements or instabilities in her posture. She will invest weeks, months into improving her performance and the sound of this short musical fragment – each note again and again and again and again and again. Inevitably, no matter whether she feels ready, she will have to perform it for a jury, to hopefully obtain one of the few sought-after seats in

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1   Isabella is not this student's real name but a pseudonym in order to protect her identity. All other students in this book have been anonymised for the same reason.

the orchestra that could launch her musical career – just like she auditioned for a place at the conservatoire just a few years ago.

The conservatoire is an institution dedicated to musical education, a place where students are prepared for their musical futures. Here, young musicians turn into experts of classical music's conventions and traditions. The conservatoire presents an essential gear in the machine that upholds this music's artistic heritage – a heritage that, to a large extent, is built on past music. This is one of the reasons why this fieldwork fragment is remarkable: it highlights one way classical music is, literally, conserved and 'kept' in practice. It underlines the importance of adhering to a musical past that is represented primarily by the score. The manner in which this past is learned, practised, and rehearsed here is also important: sacredly, untouchably but precisely, in a clear hierarchical setting, with no room for error or doubt – let alone Isabella's own musical ideas for the piece. A lot of effort in classical music goes into properly understanding how to perform this past music and its tradition, canons, and repertoires.

This observation, collected in one of the many conservatoire lessons that I was allowed to attend, picks up on one of the main aims of this book. In and throughout this thesis, I seek to comprehend, trace, and make visible how classical music and its heritage – meaning its artworks and surrounding traditions – are transmitted and negotiated by its various practitioners. In doing so, I do not focus on the musical works per se: rather, I aspire to demonstrate how a selection of actors, practices, and materials within classical music help this music exist over time. Therefore, this book is a journey into understanding how tradition operates, and how this music's continuous existence is enabled and shaped by the actors and materials that are involved in it. While the opening example of the preparation of Isabella's audition demonstrates the rigidity in which this heritage is often taught at the conservatoire, I aim to illustrate that the effort that is involved in transmitting this music consists of a continuous negotiation of what remains 'stable' and what is allowed to 'change' – and what such negotiations look like in practice. In connection to that, I lend an ear to settings beyond the concert event or musical performance, to other, potentially less visible actors, materials, and practices that help keep this art form alive, demonstrating where else this music and its tradition reside. In doing so, I also demonstrate that the conservation of this artistic heritage does not merely take place in the performance of musical works; if we look closely, the continuing existence of this music and its tradition depends on many other related activities and practices, materials, and artefacts.

Connected to that, I chose the observation above not only as an example of how past music is transmitted in and into the present but also because it demonstrates how *alive* classical music and its legacy are. In his book *Critical Entertainments: Music Old and New* (2000), pianist and writer Charles Rosen famously states: 'The death of classical music is perhaps its oldest continuing tradition' (p. 295). In this quote, Rosen refers to a long-standing narrative: the idea that classical music is in a downward spiral, characterised by ever-declining and ageing audience numbers, and increasingly neoliberal cultural policies and funding environments (Johnson, 2002; Kramer, 2007; Spronck, Peters, & van de Werff, 2021). Yet it is undeniable that

classical music and its tradition have remained remarkably stable through time, moving along with political, social, and economic challenges and transformations. Isabella, the nineteen-year-old Spanish cellist from the opening of this chapter, is only one of hundreds of young musicians at the Conservatorium Maastricht who are, maybe at this very moment, unsuccessfully trying to book a room because there is not enough space in the building for all the students to practise.

With the term *classical music tradition*, I refer to the lived practices, routines, systems, institutions, materials, and actors that bring this artistic heritage in classical music to life. I will use the term in its singular form because my project pertains to a particular scope of this musical tradition rather than distinct periodic styles or forms of it: as I will describe in more detail below, this tradition starts around 1800 and conceptualises classical music as transcendent, an ideal art form consisting of autonomous artworks (Goehr, 1992/2007). Importantly, German musicologist Friedrich Blume (1970/1979) argues that 'every definition [of the nature of "the classic"] must consider the "classic" in its relation to the "romantic," since both these style concepts are basically one' (p. 9). The 'classic' and 'romantic' are interwoven with each other and there is 'no possibility of precise separation' (Blume, 1970/1979: 16). Connected to this, while I will refer to classical music from a range of historical periods (such as Baroque, classical, modern, and postmodern), readers will find that it is the Romantic tradition – and its idealist aesthetics –under which these periods and styles come together in this book.

Moreover, my understanding of tradition as a practice connects intimately to the idea of 'musicking'. This is a term coined by Christopher Small (1998) to highlight the heterogenous actors and materials that make a musical performance:

> To music is to take part, in any capacity, in a musical performance, whether by performing, by listening, by rehearsing or practicing, by providing material for performance (what is called composing), or by dancing [original emphasis]. We might at times even extend its meaning to what the person is doing who takes the tickets at the door or the hefty men who shift the piano and the drums or the roadies who set up the instruments and carry out the sound checks or the cleaners who clean up after everyone else has gone. They, too, are all contributing to the nature of the event that is a musical performance. (p. 9)

This constructivist and inclusive reading of musical performance is integral to the understanding of musical tradition in this book.[2] Tradition, too, is constantly practised, performed, and rehearsed, often over decades or even centuries. It is in practising a few lines of a piece by Strauss until you cannot (and do not want to) hear yourself play anymore; it is in doubting the length of an audition excerpt because you have learned it differently; it

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2   Small's (1998) concept of 'musicking' has shaped my research on and understanding of this artistic practice, although it can be criticised for its theoretically limitless reading of what or who is included in 'musicking'. Yet this concept has helped me to look beyond the concert event to understand who and what is involved in making music. It has shaped the empirical case studies of this research by enabling me to pay attention to a variety of material entanglements that help in the production and organisation of this music.

is in auditioning for orchestras and conservatoires, as well as taking part in competitions (Bull, 2019; McCormick, 2015; Wagner, 2015). Still, this music is conserved in so many more aspects and sites by so many more actors and materials. It is in participating in the ritual of the concert as an attentive and silent listener (Johnson, 1996; Thorau & Ziemer, 2019); it is in the architectures and acoustics of concert halls and performance spaces all over the world (Cressman, 2016; Smith, 2021); it is in the building, refining, experimenting, and mastering of instruments over centuries (Bijsterveld & Peters, 2010; Bijsterveld & Schulp, 2004; Peters & Cressman, 2016); it is in annotating scores and writing programme notes and booklets; it is in browsing streaming applications or online video platforms on your phone or computer; it is in collecting LPs and CDs; it is in travelling and recording; it is in sound studios, labels, whole industries. 'Music', Small writes, 'is not a thing at all but an activity, something that people do' (1998: 2) – *together*, as musician and writer Richard Sennett highlights (2012).

All these activities and materials have relied on a firm idea – namely, that of the artwork, or, more specifically, the musical work. This underlines the last aspect shown by the fieldwork observation: the importance of a selected number of musical works that are integral to the practice of this music. In her book *The Imaginary Museum of Musical Works: An Essay in the Philosophy of Music* (1992/2007), philosopher Lydia Goehr argues that Western art music has become objectified by help of the work-concept roughly from 1800 onwards. The work-concept, with which emerged the strong idealist notion of *Werktreue* – meaning fidelity to the musical work – helped music become increasingly understood in terms of transcendent or autonomous artworks which were to be performed and which could be performed to varying 'success' in regard to authenticity (Ibid.). This made it possible for classical music to be 'collected' in canons and repertoires, becoming seemingly frozen and preserved like museum objects (Goehr, 1992/2007; Taruskin, 1995). Alongside and in exchange with this work-concept developed, as musician and musicologist Bruce Haynes (2007) explains, other important conditions and elements of this tradition, such as the image of the composer as genius and the continuous pursuit of the composer's intentions, the superiority of musical literacy, the importance of (technical) excellency of performance, and the ritualistic concert character with its emphasis on silent and attentive listening (p. 6). This is how, in practice, the work-concept became regulative and helped establish permanence of both the musical works and the practices and materials that enable them (Goehr, 1992/2007: 102). Still today, the musical and social practices and conventions in classical music are closely tied to this aesthetic.

In fact, classical music, together with its works and tradition, is perceived as so stable that it is often referred to as a 'museum-like' practice (Smith & Peters, forthcoming). As mentioned above, declining and ageing audiences are commonly recognised as a symptom of this, raising the question of the societal and artistic relevance of classical music today – meaning for whom it is relevant and how so. Such questions are the reason for a recent, ongoing wave of demands and research to innovate the classical music landscape both from within the community and beyond. This book, the result of a research project in the Maastricht Centre for the Innovation of Classical

Music (MCICM), founded in 2018, is proof of that. So far, the concert ritual has been critically questioned as a site for innovation, leading to the creation of new concert formats, experimental concert spaces, and alternative ways for the audience to participate (Idema, 2012; Pitts, 2005; Spronck, 2022; Toelle & Sloboda, 2019). Recently, and in light of the rise of social and political movements such as Black Lives Matter, #MeToo, and Fridays for Future, issues of decolonisation and diversification of the canon, equality, and sustainability have been added to the mountain of challenges that classical music faces. These are difficult subjects for the classical music community exactly because it has rested, as many scholars have pointed out, on a 'bourgeois' tradition that is exclusionary, classist, and elitist, as well as racist and sexist (Bull, 2018, 2019; Bull & Scharff, 2017; Citron, 1993/2000; Griffiths, 2019; Ramstedt, 2022; Scharff, 2018a, 2018b). These malaises cannot simply be overturned from one day to the other, as they constitute old, systemic problems and are deeply embedded in classical music's workings, institutions, and aesthetics.

One might well question to what extent matters such as decolonisation, diversification, equality, and sustainability are to fall under the umbrella of 'innovation'. They are, I believe, long overdue imperatives, indispensable to the future of any artistic or cultural practice that seeks to stay relevant. While it is important to mention these challenges, they are not at the centre of my investigation. The question of the future of classical music will not be completely answered by having a decolonised or diversified canon, or by the inclusion and participation of hitherto neglected groups in this art form. Rather, this future asks how to deal with those extant works and traditions that have become so iconic and fundamental to the practice, and around which we have built our concerts halls and conservatoires. Innovation therefore also concerns the organisations as well as broader frameworks – such as classical music's idealist aesthetics – involved in the (re)production of this tradition. In this sense, to innovate must mean to start from this musical tradition and its manifold practices. I believe that in doing so, new contexts and opportunities for innovation can be revealed, meaning where it can take place in practice and how.

This is important because the drive for innovation is mostly framed as standing in opposition to the long-standing tradition of this musical culture. Neil Thomas Smith and Peter Peters describe the 'museum problem' in classical music as 'a practice trapped in the past, unable to respond to contemporary currents in society and increasingly irrelevant to what is happening around it' (forthcoming). Authors like Goehr (1992/2007) and James Burkholder (2006) have highlighted how classical music culture and its institutions preserve the past. It is no surprise, then, that 'innovation' seems to hang over classical music like the sword over Damocles: a sword that might give way to new opportunities by cutting off old strings, but a sword nonetheless. Musicians worry about spending years of their lives obtaining excellence in performing artworks whose place could become uncertain, as orchestras, ensembles and conservatories slowly seek to change the 'old ways', raising questions for the meaning and applicability of the craft; conservatoires try to transform their curricula not knowing what the future of the practice will really look like; orchestras struggle to introduce new repertoires and works while having to find out what to do with the old ones. In addition, innovation is not only

difficult but also costly, presenting an economically risky (or impossible) venture for many institutions navigating already precarious funding environments. For those institutions that have the courage and means to experiment, innovative projects tend to exist apart from the 'ordinary' workings of these organisations – for example, by employing separate innovation working groups, departments, programmes, or temporary projects. This has become clear, for example, in the MCICM's own experimental collaborations with philharmonie zuidnederland, a regional, subsidised orchestra in the Netherlands. While helping to make innovative formats feasible from an economic and artistic perspective for the orchestra, such structural separations might also unwillingly widen the gulf between innovative formats on the one hand and the more traditional 'business as usual' on the other.

In this book, however, I do not intend to draw innovation and tradition as a priori contrasts. Rather, I am interested in how and where innovation, change, and tradition intersect and intertwine. This means that I first need to show how (and where) classical music culture has become so seemingly stable, so solidified – because this reveals also where it is not obdurate, not fixed. An important perspective on the relationship between innovation and tradition in artistic practice or heritage can be found in a different, albeit familiar institution: the museum as an institution where innovation and tradition need to be constantly negotiated and related. Specifically, it is the contemporary art museum and its conservation department – that department in which professionals focus on the conservation of artistic heritage and particularly artworks for the future – that can help us address this tension both on a conceptual and on a practical level. Instead of viewing the museum as a place in which the past, history, and tradition are unquestionably reproduced and 'frozen', in this introductory chapter I argue that contemporary art conservation demonstrates that activities like conservation, maintenance, or care can also be considered innovative work – and that this insight is relevant for classical music. In the next section, I will elaborate on two concrete levels on which contemporary art conservation can become a role model for classical music: first, on the level of the new theoretical understandings of how artworks exist, meaning the ontology of artworks – which is particularly important considering the idealist Romantic aesthetics of this music – and second, on the level of practical consequences that such understandings bear for the institutions that are concerned with the continuing existence of artistic heritage. This also has important consequences for the 'museum problem' that classical music is thought to have. I will proceed to outline the relationship between innovation and conservation before ending this chapter with an outlook on the contents of this book.

1.2 Towards a new 'museum problem'

At first glance, contemporary art and classical music look, admittedly, very much like opposites. Whereas classical music is rooted in a crafts tradition whose works are mostly decades

or even centuries old, contemporary artworks might be said to be much younger and more diverse. Since roughly the 1950s and 1960s, various new media, technologies, and materials have emerged in contemporary artistic practice. Think, for example, of the supposedly immaterial performance artworks such as those of Tania Bruguera or Marina Abramovic. Or, similarly, works that incorporate older technologies like tube TVs (CRTs) in those by Nam June Paik. It is artworks like these that have led to the characterisation of contemporary art as becoming increasingly dematerialised (Lippard & Chandler, 1968; Lippard, 1973/1997). An important element of this is the ephemeral nature of many of these works, which has endowed them with a performative quality reminiscent of music. Conservator and new media art researcher Hanna Barbara Hölling, for example, claims that such artworks might be better understood with the help of theories of musical performance rather than as fixed or static artistic objects, as these help to shift focus to the performative nature of the materials incorporated (2017: 44–46). This is no coincidence: music – also classical music – was always just a stone's throw away from contemporary artistic practice. The avant-garde Fluxus movement – which included artists such as John Cage, Dick Higgins, George Brecht, and later also Nam June Paik and Charlotte Moorman – envisioned an alternative future for music (Hölling, 2017: 42). They created performances that were processual rather than fixed, yet employed 'the textual model that informs classical music and musicology' (meaning performing a score) (Auslander, 2000: 112). This movement, in turn, drew heavily on the history of new music at the beginning of the twentieth century (Patteson, 2016). Also artworks that incorporate actual music and sound elements have come to play an increasingly important role in galleries and museums today (Semmerling, 2018, 2020).

Such elements of fleetingness or performativity are not new to practitioners of classical music, but they have fundamentally challenged the institution that seeks to collect and display these artworks: the museum. Due to their often ephemeral, changing, and transformative natures, many contemporary artworks are not easily 'captured' or fixed, and so disrupt and question the very logic of this institution (Laurenson, 2006; 2013; van Saaze, 2013). Although the material complexity of contemporary artworks also problematises processes of acquisition and curation, they are particularly at odds with the ideas and practices of conservation, meaning the preservation of artworks for the future. Before contemporary art emerged, artworks – paintings, for example – were conceived of as finished objects that were to be maintained in or restored to their original condition (Clavir, 1998). This led to the establishment of the modern scientific paradigm in art conservation, which revolved around the idea of materially preserving an authentic, original object (Ibid.). While the field advanced alongside this paradigm particularly in the early twentieth century, both came to its limits when, not much later, contemporary artworks flooded galleries and museums (Muñoz Viñas, 2005: 70). What to do, for example, when the original materials of an artwork deteriorate, break down, become unattainable, change – or what if there are no obvious materials to begin with? Enabling a meaningful existence to these works required new ideas and theories, as well as new actions from museum professionals.

This has resulted in an overwhelming body of research exploring how artworks exist and how to carry them into the future, leading to a critical interrogation of the position that the museum occupies in this and thus changing the workings in the institution.

In this section, I introduce the main endeavour of this thesis. I propose that such studies of contemporary art conservation – particularly those rooted in performance and time-based media art[3] – are relevant to the question of the future of classical music, its works and traditions. As classical music practitioners encounter the multifaceted challenge of innovation, the question of how to 'conserve' the musical works on which this tradition is built, as well as how to continue with the tradition and its many practices, has become an urgent one. The reason for this is that, as explicated in the beginning of this chapter, the faithful execution of the musical work – meaning *Werktreue* – is still an important concern for many classical music institutions and their practical operations, for various reasons. This intertwinement of wanting to safeguard artworks, artistic heritage, and traditions while making space for change is not a 'new' problem: it is a problem that has been investigated and negotiated by contemporary art conservators for decades. Equally to classical music practitioners, these professionals are driven by a desire to make the artwork available, perceivable, and experienceable to the public in the future. They have, one might argue, essentially the same problem. This has inspired the main research question of my project: *How can approaches from contemporary art conservation assist in opening up classical music while also helping to conserve its artistic and cultural heritage?*

Admittedly, this question might sound paradoxical at first: is an art conservator's responsibility not to preserve an artwork as is, as best as possible? The short answer: it's complicated. The long answer rests in two points that are especially important to how contemporary art conservation can help classical music. First, conservators have developed a wealth of new understandings of how artworks exist, how they can be conserved, and who is involved in this process. Exactly because time-based media art and performance artworks have been positioned in proximity to music, these understandings also provide new insights into how musical works might exist through time – and can be considered more helpful than, for example, earlier approaches of art conservation. By shifting focus to how various actors and materials intervene in an artwork's existence and performativity, they open up new perspectives on how an artwork may be transmitted through time in relation to ideas of *Werktreue* or the notion of identity of an artwork. While music sociological approaches can afford similar explorations – I will explore the role of music sociology in more detail in Chapter 2 – contemporary art conservation studies are characterised by a forward-looking reflexivity that exceeds the descriptive work done in much of music sociology. Contemporary art conservation asks the difficult question of what future(s) to make possible, how so, and for whom; it has to

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3   Time-based media art conservator and researcher Pip Laurenson states that 'the term time-based media refers to works that incorporate a video, slide, film, audio or computer based element. Time-based media installations involve a media element that is rendered within a defined space and in a way that has been specified by the artist. Part of what it means to experience these works is to experience their unfolding over time according to the temporal logic of the medium as it is played back' (2006).

make explicit why conservators do what they do for others to be able to understand later, and it reveals the contingencies of an artwork's existence – and how to deal with these contingencies – instead of supposing an artwork's mere openness or 'unfinishedness'. One of these approaches, which constitutes my theoretical framework and which I will also introduce in Chapter 2, is particularly fruitful for the case of classical music: Hölling's theory of the artwork's archive, including the notions of archival potentiality and actualisation (2015, 2017a).

Yet the often seemingly conceptual or philosophical examinations of an artwork's existence do not have to remain merely theoretical. In contemporary art conservation, theory and practice are deeply intertwined. Because conservators draw on concrete artistic practice – a position not unfamiliar to (classical) music scholars – the outcomes of their theoretical endeavours often pertain to real-life problems, thus blurring the lines between theory and practice and creating 'shared problem spaces' (Laurenson, van Saaze, & van de Vall, 2022). This has borne practical consequences for the operations of the museum and leads me to my second point. Because of their deep connection to actual conservation and artistic practice, these approaches all have one thing in common: the realisation that change is part of the artwork, and that change needs to be managed and monitored rather than prevented. This recognition has stimulated museum professionals to transform their traditional ways of working – for example, when it comes to activities such as restoring, replacing, and documenting, but also seeking collaborations with external stakeholders and considering new institutional models for such external and interdisciplinary collaborations (Laurenson, 2013). However, the change of these activities also bears risks, as they shift the role of the conservators and the museum as the primary and solitary actors responsible for these artworks' continued existence (van de Leemput, forthcoming).

The point to be made for classical music is that these new theoretical understandings affect the institutional operations and activities, which can be – on the basis of such insights – transformed, calibrated, and adjusted. After all, both the museum and the classical concert (or, for that matter, the orchestra or the conservatoire), are cultural institutions in which artistic heritage and specifically artworks play a fundamental role. Both are also institutions embedded in long cultural traditions – institutions whose work can be characterised by deeply engrained practical routines and conventions as well as processes of increasing professionalisation. The contemporary art museum has demonstrated that transformations of the routines and conventions can be informed by new understandings of artworks' ontologies. I similarly think that if we understand better how and where classical music, its works, and its traditions exist, new opportunities for transformation and innovation can be revealed. In my conclusion, I also aim to return to the innovative potentials that my theoretical approach might open up for the different classical music practices and artefacts researched in this book; part of my insights will also return in this book's 'Impact paragraph'.

Throughout my project, I have pursued the desire to craft visibility into how contemporary art conservation grasps how artworks exist and what might be learned from this for

the future of classical music. With this book, I intend to foster the dialogue between classical music and contemporary art conservation. I do so by engaging theoretical approaches from the latter with my empirical fieldwork in classical music practice. It is in this interdisciplinarity that the main academic relevance of this thesis rests. In the introduction to *Classical Concert Studies: A Companion to Contemporary Research and Performance* (2020), Martin Tröndle and Esther Bishop praise museum studies as a role model for classical concert studies. The authors suggest that museum studies' interdisciplinary approaches, as well as their forward-looking discourse, have contributed positively to the institution's development, as well as its relevance in society. This has, according to the authors, initiated a substantial transformation of the practices and functions of museums in the last decades (Tröndle & Bishop, 2020: 1–2). They argue that

> it is difficult to find a similar compendium that deals critically with the concert in theory and practice or training programs with a focus corresponding to museum studies. […] Perhaps this is yet another reason why the museum, as an institution, has changed rapidly and is enjoying increased popularity worldwide while the classical concert is struggling with the loss of public interest. (2020: 1)

The authors suggest that the historical, social, and institutional aspects that have been investigated in museum studies have contributed positively to this institution's development and understanding as well as its relevance in society. In contrast to the authors' more general claims and praises, however, I have just shown what it is exactly that classical music might learn (and need) from contemporary art conservation. An important part of that is to look at practices in classical music that lie outside the act of performance in the concert hall – such as the making of orchestral history and identity in the production of programme booklets, the engineering of classical music online streaming apps, or instrumental education at conservatoires and festivals – because answers to the question of 'public interest' and social relevance might be found in other places than the concert hall as well.

The contemporary art museum is a changed and constantly changing institution, with conservation practitioners and scholars at the forefront. As a result, the museum comparison from which classical music has drawn so extensively in the recent past (cf. Burkholder, 2006; Goehr, 1992/2007; Smith & Peters, forthcoming) – and which holds a fair share in how classical music and its works are still considered as static and irresponsive – is simply outdated. Classical music took the museum as an example in the beginning of the nineteenth century, when the concert hall became a dedicated space for the contemplation of musical compositions as autonomous artworks. But the museum has changed, alongside new museum and conservation strategies developed in the twentieth and twenty-first centuries. What does that mean for classical music? Classical music needs to catch up: classical music institutions and practitioners can benefit from the museum's developments, crises,

strategies, potentials, learned lessons, and mistakes. They may learn from how museum professionals negotiate changes of artistic heritage and artworks. This is why the contemporary art museum should become a crucial point of reference for classical music and its practice again. Yet this museum problem is different from the one before: contemporary art conservation has demonstrated that the 'museum problem' of today is the question of how to manage conservation and change, of how to think about and practise the future of works that are – by nature – changing, leading to question and transform the very institutions that were intended to keep, maintain, and conserve in the first place.

1.3 Flipping a coin: On the relation between innovation and conservation

So far, I have discussed how classical music, its works and traditions, are very much alive today and how this is related to the solidification of this music's aesthetics in practice, resulting in an apparent tension between innovation and tradition – in short, classical music's (as I have argued outdated) 'museum problem'. This tension, I have proposed, should not be perceived as an obstacle but as an opportunity or starting point. I have outlined the role and potential relevance of the contemporary art museum and specifically contemporary art conservation in understanding and fruitfully negotiating the past, present, and future of artistic heritage, arguing that its approaches can help open up classical music's practices while taking into account its long-standing traditions. Now it is necessary to take a closer look at how conservation and innovation relate to each other, a relation which I have described not as oppositions, but two sides of the same coin. In this section, I shed light on how matters of conservation might be considered important to ideas and practices of innovation. In doing so, I make a case for this study's societal relevance: this research is also an attempt to reformulate what innovation can be and what it can mean or look like when it comes to arts and culture. In what follows, I will first explore the meaning of 'innovation' and its connotations before demonstrating how its understanding has pervaded discourses and practices in classical music. I will then turn my focus to how art conservation might relate to this.

Innovation has become a hot topic in many public and academic discourses in recent decades – for example, when it comes to technological developments, healthcare, transportation, governance, research, or economy. Thereby, it is often connected to ideas of disruption, growth, optimisation, or improvement (Vinsel & Russell, 2020: 10). Political sociologist Benoît Godin (2021), however, has shown how the modern meaning of this notion has been shaped from classical antiquity onwards throughout the French Revolution and Reformation, becoming an increasingly negatively connoted concept as it came to represent a violent disruption of social order. Today, this originally religious meaning of innovation remains but has acquired new and positive meanings, such as novelty, originality, and cre-

ativity (Godin, 2021: 18–19). Importantly, whereas earlier understandings of innovation are directed towards the past (for example, through activities such as reforming, restoring, correcting, or amending), innovation today is a process or action that is largely future-oriented. It promises to create the means for a better future driven not only by economic forces but also societal, ethical, and environmental ones (Godin, 2021: 18).

In their book *The Innovation Delusion* (2020), historians of technology Lee Vinsel and Andrew L. Russell cast a critical, pessimistic outlook on the notion of innovation, challenging today's prevailing image of innovation as 'inherently good' (p. 11). Promises of future impact, the authors argue, are often dishonest and treacherous because they rely on a 'rhetoric of fear' and 'perpetual worry' – for example, of being left behind (Ibid.). Although they recognise that innovation is important to various aspects of society, much of it is drowned out by what they call 'innovation-speak': 'Unlike actual innovation, which is tangible, measurable, and much less common, innovation-speak is a sales pitch about a future that doesn't yet exist' (p. 11). A related but more nuanced account is offered by science and technology studies (STS) scholar Harro van Lente (2021), who traces how innovation is driven by certain imaginaries, meaning collectively available symbolic meanings or values (p. 23). These are intimately part of how innovation has become 'a shorthand for improvements, for progress, for superiority; a shorthand even for the project of modernity itself' (van Lente, 2021: 24). Van Lente describes how we encounter these imaginaries in the form of texts, narratives, symbols, icons, graphs, curves, artefacts, and images. They are testimonies of how 'ideas about reality shape reality, […] which understand social reality as being forged by shared meanings and symbolic worlds, creating context for further social action' (Ibid.). As such, they not only shape our expectations for the future but also play a fundamental role in directing policies, assigning roles in the involvement of innovation, and setting agendas. Imaginaries are not merely imaginary; they have real-life consequences for how innovation 'is done' and who is involved in it.

Also in classical music, imaginaries are an integral part of innovation discourse and practice, delivering the reasons for the desire for innovation in the first place.[4] In her book *Listen Closely: Innovating Audience Participation in Symphonic Music* (2022), Veerle Spronck has shown how the (not always correct) imaginary of the 'ageing' and 'vanishing' concert audience has led to an upsurge in experimental concert formats and audience engagements in the Netherlands, which in turn has been further stimulated by significant transformations in Dutch cultural policy discourse. Here, innovation is primarily understood in terms of participation, meaning who participates in classical concerts and how so (2022: 22). This suggests, as she formulates, that conventional ways of participating in a classical concert – for example listening silently and attentively – 'may no longer fit with how people want to engage with the arts', meaning 'that orchestras need to innovate the ways in which they perform to engage new audiences' (Ibid.). Also the MCICM, of which Spronck's study as well

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4   An important distinction to make here is that the arts can also be a means to innovate in other fields, yet this is significantly different from innovating an artistic practice.

as my own research is part, is the result of these developments set in motion by such imaginaries. In the MCICM Artful Participation project, for example, researchers, musicians, and other art practitioners (such as orchestra staff) have collaborated to find out how (audience) participation can be innovated in classical music, what that means for orchestral work, what and who it might involve, and what this can actually look like (Spronck, Petzold, & Benschop, 2021; Peters, van de Werff, & Eve, 2022; Peters, van de Werff, Benschop, & Eve, 2022; van de Werff, Eve, & Spronck, forthcoming).[5]

Importantly, other scholars have also researched innovation in classical music – and not necessarily 'only' inside the concert hall. Studies that focus on innovations in musical instrument culture, which are largely rooted in the field of STS, show how change and innovation operate in these tradition-loaden fields – drawing attention to the role that technologies play questioning the methodological and epistemological 'status quo' in the study and practice of music (Benschop, 2009; Hennion & Levaux, 2021; Peters & Cressman, 2016; Pinch & Bijsterveld, 2003, 2004; Pinch & Trocco, 2002). These studies highlight an important lesson for practices of innovation in classical music culture: that innovation and tradition are closely related to each other, and that existing traditions and values need to be considered by those innovations for them to be successful. 'Instead of bringing the innovation closer to tradition', Karin Bijsterveld and Marten Schulp state in their article on innovating classical music instruments (2004), 'recasting tradition implies pushing tradition closer to the innovation' (p. 668). The authors admit that this might be specific to fields and practices in which craft and tradition are particularly important – such as classical music. This shows that innovation needs to be aligned with the aesthetic values of this music, on which its practices, materials, and routines are built (Bijsterveld & Peters, 2010).

These findings – that innovation in classical music cannot be as disruptive as in other fields because it needs to adhere to the music's aesthetic and social conditions at least to some extent – take me back to the work by Vinsel and Russell (2020). They state that an 'ideology of change for its own sake [in innovation] does not work', suggesting that change needs to be anchored in what is already there (2020: 12). As a consequence, the authors propose shifting focus to the largely neglected and undervalued activities of maintenance, repair, and care (2020: 14–15). Although Vinsel and Russell largely refer to the fields of technology and (technological) infrastructures in their book, I believe that classical music can also profit from this shift. As argued throughout this chapter, classical music culture still significantly revolves around the notion of *Werktreue*, which directly relates to and establishes activities that maintain (for example, materials and bodies), conserve (for example, works, canons, and repertoires), and care (for example, the craft,

5 Between 2017 and 2021, the Artful Participation project realised seven experiments in audience participation in close collaboration with philharmonie zuidnederland. The processes experienced in this collaboration resulted in a learning model that the researchers, musicians, and orchestra staff involved in the MCICM have developed together. More information on these experiments as well as the learning model can be found at www.artfulparticipation.nl.

the art, and the people who are involved in it). This is one of the reasons why I proposed that contemporary art conservation is a particularly relevant field to better understand classical music practice and its potential future. An important part in this is occupied by the shift in contemporary art conservation to view conservation not as a task directed at 'fixating' a work, but as an activity that is motivated by the question of how to take care of changing artworks. While care does not occupy an explicit theoretical pillar in this book, this concept has recently become an essential part of contemporary art conservation as a field, reshaping its scholarly approaches as well as practical activities such as conservation, maintenance, restoration, and documentation. The literature about care that I will introduce below has played an important role in the development of the field.

From a scholarly perspective, care is a complex issue. In the academic literature, it has been described as a theoretical concept, as an activity, and even as a method. As María Puig de la Bellacasa (2011, 2017) shows in her work, care involves a notion of doing and intervening, while emerging as a relational and affective concern: we care for the people and things that are dear or important to us, and we often do so through specific actions (2011: 89). Annemarie Mol (2008; see also Mol, Moser, & Pols, 2010) demonstrates that care is a fluid, fragmented, practical, and open-ended process that guides interactions and means different things to different actors involved in care work. In addition, Joan Tronto (1993, 2013) describes care as a central activity of human life, discerning five phases of care: (1) caring about (noticing the need of care, become attentive of care); (2) taking care of (assuming responsibility for care); (3) care-giving (the actual work and competences of care); (4) care-receiving (considering the response of that which is cared for); and (5) caring with (attending to the political and moral dimensions of care) (Tronto, 1993, 2013). Dara Ivanova, Iris Wallenburg, and Roland Bal (2020) highlight the practical infrastructures that help organise care. By investigating the organisation of a foundling room, they argue that 'decentralizing care from the locus of the individual' can help us understand the systems behind care work, as well as the spaces this work occupies (p. 146). Next to these active and affective interventions and infrastructures, Manuel Tironi and Israel Rodríguez-Giralt highlight the political capacity of care, describing care as being able to 're-arrange what becomes relevant and visible' (2011: 93). In these rearrangements, old relations shift and new ones emerge; this means that how we care (and for what) also shapes how we connect with the world and produce knowledge within and about it (Puig de la Bellacasa, 2011: 100; Haraway, 1991). Importantly, in the same breath, Tironi and Rodríguez-Giralt argue that 'care can elicit other relations and possibilities of existence', thus positing new epistemologies in close relation with the emergence new ontologies (2011: 93).

Importantly, conservation and care are not synonyms; while conservation can be a concept or activity that is not marked by the affective and practical dimensions of care work, care does not automatically mean to conserve. In the museum context, care can be best understood as an increasingly important characteristic of a new or expanded paradigm of conservation in

which change plays an important role. Such insights are also relevant to classical music because they show how complex processes and understandings of conservation can be, and how this complexity might be deeply intertwined with understandings and processes of innovation. For example, using the term or activity of 'maintenance', Vinsel and Russell (2020) claim that

> in some ways, maintenance is the opposite of innovation. It is the practice of keeping daily life going, caring for the people and things that matter most to us, and ensuring that we preserve and sustain the inheritance of our collective pasts. (pp. 14–15)

Contrary to Vinsel and Russell's call to return to care and maintenance work instead of innovation, I believe that drawing a line between innovation on the one hand and maintenance, care, and conservation on the other hand is, as I have mentioned before, restrictive. What if instead, in processes of innovating, we attended to how practitioners conserve, maintain, and care for this heritage and its tradition and works? In turn, what if ideas and practices of conservation, maintenance, or care could be understood as innovative work, as they already often are in the contemporary art museum? In short, as the above-mentioned studies in classical music innovation have shown, some degree of conservation or accounting for the tradition is necessary for innovation to work – and as the contemporary art museum has shown, this work can be innovative, new, and transformative. Innovation, then, could be aimed not only at the future; it could be directed at our past, too, and the role of this past in our present and future lives.

I propose to attend to the relation between innovation and conservation more *carefully*. By doing so, we can ask how practices related to conservation and care in classical music might be 'innovated' or changed. These innovations and changes then might respond much more actively to the long-standing values and practices of this tradition. The relationship between innovation and conservation becomes especially important if innovative practices – such as the development of experimental concert formats and the like – continue to meddle with the conventions that practitioners have been so deeply embedded in. Most importantly of all, not dismissing innovation too quickly might enable us to ask what innovation might mean in artistic and cultural practice, changing and adding to the current understandings, connotations, and associations revolving around the opaque notion of innovation and the innovation-speak that Vinsel and Russell (2020) criticise

1.4 Outline of the book

Having introduced the main topics and research question of this dissertation, Chapter 2 consists of an in-depth exploration of the theoretical framework of this research, as well as its implications for this research's design. In it, I first provide an exploration into the under-

standing and discussions of the work-concept in music studies, relating to research in the fields of music philosophy, music sociology, and relational musicology. This is followed by an introduction into contemporary art conservation studies and their role addressing the shortcomings posed by these music-centred discussions: here, I highlight the ability of contemporary art conservation approaches to address the issue of musical ontology – meaning how musical works exist – as an important empirical or practical concern that enables us to ask how musical works are conserved and taken care of in practice. I hence outline how my main theoretical approach – captured by the notions of the archive, archival potentiality, and actualisation, which are borrowed from the work of contemporary art conservator Hölling (2015, 2017a) – informs my empirical work, meaning the selection of the three case studies as well as the methods used. Each of the three case studies revolves around one musical artefact. Each of these artefacts – concert programmes, classical music streaming applications, and an instrument (the violoncello) – may be understood as its own unique archive consisting of different strategies, skills, materials, and actors that are involved differently in the conservation and negotiation of classical music heritage.

Considering the significant methodological variety that results from the differences between these three artefacts, each empirical chapter is preceded by a chapter that provides the reader with the most salient scholarly discussions and problems revolving around the respective artefact. These chapters can be argued to help perform these artefacts as archives, while their empirical counterparts show how these archives are performed in practice. With this organisation, I intend to help the reader better understand the case studies while making an argument for my motivations of selecting each case. Yet they might also be seen as relevant in themselves because they summarise and point to shortcomings within the corresponding academic literatures. Chapter 3 therefore takes the reader into the world of concert programmes, those booklets that audience members can obtain before the start of a concert to inform themselves about the ensemble or the musical works. I discuss the importance of understanding the concert programme booklet holistically, arguing that its sociomateriality is important in generating and solidifying musical traditions over time.

This chapter is followed by the first empirical case study on the concert programmes of the London Symphony Orchestra (LSO) and Vienna Philharmonic Orchestra (VPO) in Chapter 4. Based on archival research and interviews with relevant staff members, I examine how programme booklets are made within the two orchestras and how they become archives that help to both conserve and renew these ensembles' institutional and organisational identities and traditions. I conclude that the ways in which the concert programmes transmit this music is intimately tied to this making and conserving of institutional identities, histories, contexts, and practices. Together, Chapters 3 and 4 make up Part I of this book, which I label 'Concert programmes'.

Part II, entitled 'Classical music streaming apps', invites the reader to become acquainted with the discussions and practices surrounding streaming classical music in

online environments or digitally. In Chapter 5, I discuss relevant issues in online music streaming with an eye on classical music, such as ubiquity, curation, personalisation, and discovery, as well as the idea of cloud materiality and its consequences for collecting. I suggest that cloud streaming can expand the possibilities for classical music to exist in the online realm, dispersing and multiplying the aesthetics, conventions, and practices within which this music has been so firmly embedded. How this happens in practice is the central question of Chapter 6. Here, I investigate how classical music is catalogued, organised, and performed in two classical music streaming services, IDAGIO and Primephonic. I find that the existence of classical music in these online spaces draws on a combination of different medial traditions. Well-established systems, ways of organising and structuring classical music are paired with mechanisms, features, and functions taken from other musical genres and streaming technologies. The result is not only a literal digital archive of classical music, but one that is increasingly intermedial and potentially shiftable and transformable – an archive in which curation and personalisation have come to play a pivotal role not only in experiencing but also shaping this music's online existence and contexts over time.

Part III of this book, 'The violoncello', is dedicated to examining the role of the cello in classical music's ongoing existence, and the question of what it means and takes to become part of classical music tradition by learning how to play an instrument. Chapter 7 takes the reader into the conservatoire, positing this institution as one of the most important places in which embodied learning and teaching takes place. I argue that instrumental learning is not merely a means to execute the 'transcendent' musical work, suggesting that scholarly discussions have not yet understood well enough how musician and instrument are intertwined. As musician and instrument learn to become together through and within the musical work, they take part in material engagements that often last for decades or entire lifetimes. In Chapter 8, I investigate these physical and affective intertwinements both at the Conservatorium Maastricht and the Cello Biennale Amsterdam 2020. I trace various material engagements between humans and cellos – such as different lessons between teachers and students at the conservatoire, an instrument competition at a festival, and an experimental concert – and show how they conserve classical music differently. I conclude that humans and instruments are not merely archives for musical works or classical music traditions in themselves; rather, it is in the embodied relationship between the two that the works and tradition exist. Therefore, they are constantly calibrated, negotiated, undone, and relearned, positing this archive as a highly specialised, skilful, and exclusionary site where musical works become means to make sense of a relationship with a significant sounding other.

In the concluding Chapter 9, I review my findings from the case studies and their consequences for the relationship between innovation, tradition, and conservation. I conclude that – as the continuing existence of musical works is embedded in a complex, heterogeneous network of mechanisms, practices, identities, and actors – the question of innovation in classical music is a question of how to conserve and care for not only for the musical works,

but its manifold practitioners and institutions (many of whom are at home outside of the concert hall). Based on the theoretical framework employed, I demonstrate how and where innovation might be possible within the three case studies while also attending to aspects of this tradition that appear to be 'non-negotiable'. I then use these insights to create three lenses that might stimulate further research into innovative practices in classical music. As I conceive of this book as a dialogue between classical music and contemporary art conservation, this chapter additionally presents lessons for contemporary art conservators inspired by what I learned about classical music over these last four years. Connected to this, I conclude the book with a reflection on the role of interdisciplinarity in conserving the performing arts.

2

Classical music beyond the concert hall: Theoretical and methodological reflections

2.1 Musical work(ing)s

Much of classical music today is learned, rehearsed, performed, and experienced in the 'currency' of musical works. They occupy a firm position in the production and organisation of Western classical music: think, for example, of the programming of concerts and ensembles' schedules; of listening to a work you particularly like on your phone on the bus or on a CD at home; or of the musicians, who – like Isabella, the cello student in the beginning of this book – spend years to build a repertoire of pieces to be able to perform in front of an audience. The notion of the 'work', however, is not only important in music but pervades all kinds of artistic practice. It is the starting point for answering this book's main question of how approaches from contemporary art conservation can open up classical music's heritage while at the same time securing this heritage – these works – for the future. The concept of the work presents a fundamental point of connection between these two fields: to understand why and how concepts from conservation studies are relevant to the future of classical music, a deeper exploration into the notion of the work is indispensable. In this section, I analyse how the work-concept is understood in different strands of music scholarship. This is important because the ontological reflections on music in these strands – I will focus on music philosophy and musicology, music sociology, and new or relational musicology – are both relevant and relatable to the question of how to care for these works in the future. While the dazzling question of the ontology of the musical work has been pondered by scholars for decades, this analysis is not driven by a desire for completion, but rather seeks to point out approaches that might be considered relevant regarding issues of conservation and care.

Bruce Haynes (2007), in his exploration of early music and its relation to the musical work, explains that before the Romantic period, music was considered a transient performance aiming to transport emotions. Music was not a repeatable commodity but a service of craftsmanship for special events and audiences, and it was characterised by frequent improvisations. It was radically different from how we understand and practise much of classical music today (Haynes, 2007). As mentioned in this book's introduction, music philosopher Lydia Goehr has explored the development and formation of the musical work both from a philosophical and a historical perspective in her famous book *The Imaginary*

Museum of Musical Works: An Essay in the Philosophy of Music (1992/2007). Arguing that philosophical approaches to the existence of the musical work have neglected its practical, social, and historical operations and functions, she shows how the musical work became a 'regulative' concept in everyday musical practice. Goehr pinpoints the formation of the concept of the musical work to the early nineteenth century, when the establishment of museums was in full swing. When visual art became collectible and thus conservable for future generations, music communities found themselves under pressure. While the fine arts enjoyed a new autonomy granted and safeguarded by the museum, Goehr (1992/2007) argues that

> music had to find a plastic or equivalent commodity, a valuable and permanently existing product, that could be treated in the same way as the objects of the already respectable fine arts. Music would have to find an object that could be divorced from everyday contexts, form part of a collection of works of art, and be contemplated purely aesthetically. [...] The object was called 'the work'. (pp. 172–173)

The process of the objectification of music was not a revolutionary one but took place gradually, and musical works were 'collected' and subsequently canonised in what Goehr has famously labelled 'the imaginary museum of musical works' (2007: 8). Central to this was, as musicologist Richard Taruskin (1995) formulates, 'an idealised notion of what a musical work is: something wholly realised by its creator, fixed in writing, and thus capable of being preserved' (p. 227). As Goehr suggests, the musical work was at the centre of the 'Beethoven paradigm' in which performances became subservient to works and their composers, and which presented a crucial step in the establishment of artistic autonomy (1992/2007: 231). This *Werktreue* (work fidelity) ideal, in which music became equated with composition rather than performance, pervaded musical production and organisation (Ibid.; cf. Haynes, 2007). This resulted in not only the superiority of musical literacy and text but also the image of the composer as genius, an obsession with composer intention, the idea of repetition of a limited number of musical pieces, and the ritualistic character of attentive listening and the building of concert halls whose architectures exclusively served this kind of listening (DeNora, 1995; Bonds, 2006; Cook, 2013; Cressman, 2016).

Goehr argues that as a regulative concept, the notion of the work has been treated and understood as given, consequently having 'become anchored in a practice through a kind of fictional or suppositional permanence' (1992/2007: 104). In close connection to this are the canons and repertoires under which musical works have been collected and ordered, and which serve to further strengthen this permanence. Haynes (2007) argues that processes of canonisation are usually presented as authoritative and absolute, yet it should not be forgotten that canons and repertoires are socially made and selected, a fact that is often ignored or forgotten. A canon is thus much more than a mere collection of musical pieces: I understand musical canons and repertoires as social constructs, as the result of work that has been and is still being done by a

diverse range of practitioners, in a rich variety of intertwined material practices. Flemish musicologist and philosopher Arne Herman (2020) suggests that while canons grant authority to the idea of the musical work and establish artistic legitimacy, 'almost ironically, the standardized musical canon that initially promised pragmatic and aesthetic stability is increasingly pressurized because of this stability' (p. 29). Indeed, the familiar canons have come under scrutiny. Through its exclusionary mechanisms, they have become the centre of a heated cultural and political debate about classicism, sexism, racism, and representation. Still, these canons are rarely transformed, exactly because they are so deeply embedded in the practices and aesthetic ideals of the community (2020: 10; 2018). The stability of musical works, their canons and repertoires, is far from imaginary. Two scholarly approaches become particularly relevant in regard to this permanence: a more Platonist view enforced by traditional musicology and music philosophy, and a more constructivist or practice-oriented perspective held by new musicology and music sociology. At the heart of their distinction lies the notion of *Werktreue*, specifically the relationship between composition and performance.

Music philosophers such as Peter Kivy (1990, 1993, 1995) and Stephen Davies (2001, 2003, 2011) have explored the intertwinement between the musical work and its performance. Here, musical works exist as transcendent objects specified by the composer's notation. This means that a work exists independently from its performance: the musicians' task is to execute the composer's intent, meaning that renditions can be more or less faithful in reference to the notation. Therefore, performances do not affect the work 'itself'. This creates opportunities for repeatability of the autonomous object 'music', meaning that the musical work is easily preserved. Yet, as notations vary in their degrees of specificity, a significant part of performance needs to be negotiated, a process in which the musicians are either seen to add to authentic performance or diverge from it. This ambivalence, however, is considered a problem for performance. As musicologist Floris Schuiling (2016) notes, 'any considerations of social context, cultural meaning, or even the interactions between performing musicians were considered to be strictly 'extramusical'' (p. 42). As a result, disciplines such as music philosophy and musicology focused on studying the aesthetic ideals of musical practice in ways that were aligned with these ontological ideas – for example, in studying musical works, notations, performances thereof, and individual composers' styles and biographies.

It was the performative turn in music studies that has profoundly unsettled this Platonist view on musical works as universal, reproducible, and unchanging objects that exist completely detached from performers and other materialities. Central to this is the idea that the creation of the musical work happens through or in performance and its context, making the performance constitutive of the work. An important example of this approach is Small's memorable notion of 'musicking', mentioned in the introduction of this book, in which music becomes, above all, an action or (social) activity that takes place through the participation of a variety of actors (1998: 9–11). This idea introduced an understanding of music as 'an encounter between human beings that takes place through the medium of

sounds organized in specific ways […] in a physical and social setting' (Small, 1998: 10). From such a perspective, the musical work results from its situational embedment.

While performative approaches can be traced to ethnomusicology, they have seeped through musicology and music sociology. In contrast to more Platonist or essentialist readings, preserving a work becomes difficult in these approaches. By acknowledging that the work is constructed through and located in practice, it becomes impossible to conceive of it as a definitive object. While the idea of the transcendent, 'written' musical object safeguards the work's identity or essence, here, the musical work can be seen as subjected to continuous pressure exerted from the (changing) practices and social contexts that perform it. In this logic, a work by Beethoven could, potentially, be an entirely different work each time it is performed. Therefore, although the performative perspective brings to the fore the actual practices, contexts, and environments in which musical works exist, it may not suffice to explain how these works have remained so stable over time. This stability, however, is important from a conservation perspective, specifically the challenge of how to bring these works into the future – and the role that change might play in that future.

The birth of new and specifically relational musicology may provide answers to this puzzle of how works remain stable over time while constantly being 'performed' in different situations (Born, 2010). In this strand of work, scholars have criticised traditional musicology's focus on music as transcendent object in both empirical and theoretical research. Subsequently, they turn to the question of how social and material contexts shape a work's production and organisation, demonstrating how the aesthetics of the work-concept are relevant to musical practice (Cook, 2012, 2013, 2020; Born, 2005, 2010). Here, the focus shifts to the heterogeneous relationships in which a work both constructs and is constructed in or through performance. Relational musicology, as the name suggests, posits artistic creation at the intersection of 'text' and 'practice'. Work and performance no longer present a simple dichotomy; rather, relational musicology shows how aesthetic ideas of *Werktreue* might be further complicated and contested in practice. In this branch of new musicology, the relationship between work and performance works, so to say, in both directions.

One example of this is Schuiling's work on notational cultures (2019), in which he reconciles the performative reading with an acknowledgement of text, specifically notational cultures:

> Have musicians playing from notation not always been engaged in such a 'sounding out' of the idols of musical notations, creatively negotiating the various social and technological mediations that make the existence of these works possible? Perhaps we can seek the answer to the question of notation's musicality not in its representation of musical structures, but in its mediation of the social and creative agency of musicians. (p. 431)

In this view, notations become 'interfaces' that enable musical relations rather than representing musical essences or structures. This idea posits the score as a resource for creative

agency. In short, it is neither the work itself nor the performance detached from the text from which a work emerges (Schuiling, 2019: 432; cf. Payne & Schuiling, 2017).

Mediation plays a primary role in this process, as the musical work becomes not only a set of social relations but is mediated through the interactions and relations between humans and objects, technologies, and artefacts. In her article 'On Musical Mediation: Ontology, Technology and Creativity' (2005), Born understands the musical work as assemblage, which she defines as 'a particular combination of mediations (sonic, discursive, visual, artefactual, technological, social, temporal) characteristic of a certain musical culture and historical period' (p. 8). In this assemblage, there is 'no single privileged location of musical meaning', but it is decentred and configured across and by the relations between its several mediations (2005: 9). While Born argues that the assemblage still contains and enables hierarchies and idealisms, these are both part and result of the embeddedness of the work in broader social and material relations and networks. It becomes clear that her approach is inspired by and connected to work in STS, particularly actor-network theory (ANT). ANT might be described as both a conceptual lens and a method to map heterogeneous networks of human and non-human actors through which the world is constituted and held together (Callon, 1984; Latour, 1987, 1988, 2005; Law & Hassard, 1999; Law, 2016). Consequently, mediators are not mere tools to constitute the musical work, nor *are* they the musical work. Rather, the work is assembled and negotiated through ambiguous resources by and in a heterogeneous network of actors.

Music mediation approaches like Born's have pushed not only musicology but also music sociology beyond known territories. As music sociologists like Tia DeNora (2003) have tried to navigate the rough waters of both radical constructivism and Platonism, materialities have come to occupy a more prominent role in the search of music's ontological conditions. Antoine Hennion (2003, 2015), who positioned STS at the intersection of music sociology and – similar to Born – goes a step further by aiming to develop a sociology *from* music instead of a sociology *of* music. Employing a pragmatist approach to music ontology, Hennion draws attention to the countless mediators that are assembled in the process of music making, such as 'instruments, scores, media, languages, institutions, interpreters and teachers' (2015: 3; 2003). However, building on the philosophical work by Étienne Souriau (1956/2009, 2015) and Bruno Latour's readings thereof (2013a, 2013b), Hennion proposes that 'we are all confronted not with a passive world, but with a "work to be done" [*oeuvre à faire*] [original emphasis]' (2017: 78). Connected to this is the concept of 'instauration', which he suggests is a replacement of the term 'creation' or 'constructivism'. While the idea of instauration expresses the incompleteness of the worlds that surround us, it is the work-to-be-done on which these worlds rely to become existent while at the same time remaining inherently unfinished. Importantly, Hennion's understanding of instauration relies on an ontology of the 'present', meaning that the past (and the future) consist of (re)constructions of, in, and by the present. The notions of instauration and the work-to-be-done see existence

not as an absolute quality (whether something exists), but as a gradual process of bringing into being and remaining in the making in the present (Hennion, 2016, 2017, 2018).

Mediation theories, such as proposed by Born and Hennion, deconstruct the binary between the aesthetic idea of the musical work as an isolated object and the purely social contexts through which it is performed. Consequently, this theoretical and empirical strand proposes a different view on how a work is transported through time (compared to the essentialist and constructivist paradigms above). Here, focus rests on the many objects and actors that constantly bring the work into being. The work is thus located in the grey space between unshakeable fixity and complete fluidity. While objects such as scores or instruments are tangible and can be conserved and kept, the practices around them have become routinised and professionalised, both adapting to and negotiating with these objects. Mediation theory thus might be argued to view the preservation or continuing existence of these works as a complex result of the interplay between human and non-human actors in musical practice, located at the intersection of text and performance.

Yet if those reflections on musical ontology can be connected to how we might bring these works in the future – which I am convinced they can – the question remains: why does contemporary art conservation matter to this, and how? Does relational musicology, or mediation theory for that matter, not offer sufficient tools to rethink the ways in which we might understand, practice, or perform these works through time? Three interrelated points suggest that they are not. First, in these approaches, the issue of conservation remains an implicit matter, a marginal thought, rather than an explicit concern. This is a result of the ongoing search to understand musical ontology; thinking revolves around the work and its relation to performance, rather than the issue of how these works are actively and continuously 'conserved' for the future. In contemporary art conservation studies, this issue is approached from the opposite direction: the rethinking of artworks' ontologies is the result of an empirical concern for their future. Ontologies and ways of existence *need* to be addressed because artworks *are* inevitably changing and comparatively quickly, often radically so. This holds important theoretical insights into the ontological state of performance-based artworks.

This is related to a second point: scholarly work in music, such as music or art sociology and relational musicology, remains largely descriptive in aiming to trace, make visible, and follow relations of a network in question. However, this descriptive work, albeit vital, often remains unacknowledged or even unknown in the practice of classical music. In contrast, as I will show in the next section, theoretical approaches are interwoven intimately with actual conservation practice in contemporary art conservation. Not only does that encourage and stimulate a great deal of self-reflexivity on the role that conservators play for the future of these artworks; it also requires transparency and communication about what conservators actually do to these artworks over time. This already hints at the fact that conservation is not only about performance, but about the practices and materials that can be located outside the immediate moment of performance.

These two points – the explicit concern for the artwork and its future as well as the entanglement of theory and practice of contemporary art conservation – enable a crucial third insight. These approaches allow us to understand that classical music's existence is not merely a philosophical problem of artistic or musical ontology, but that this ontology can be an empirical, practical concern. Consequently, and by examining classical music practice through the lens of contemporary art conservation studies, it becomes possible to uncover and address the normative choices and reflections that underly this practice and which often remain implicit in theories of music sociology. In the next section, I will provide more insight into contemporary art conservation, its development as a field, and its significance to my endeavour.

2.2 Entering the museum: Contemporary art conservation

Let's open the (metaphorical) doors to the contemporary art museum and, more specifically, its conservation department. One aim of this research is to make visible the relationship between music studies and contemporary art conservation studies when it comes to how an artwork exists. Much of contemporary art – particularly time-based media and performance art – is understood to be ontologically similar to music, a fact that has troubled and challenged art conservators: as artworks have become increasingly temporal, intangible, and processual, they have also become increasingly difficult to preserve. Such artworks have pushed conservators to new understandings of how artworks exist, subsequently also questioning (and changing) how institutional practices intervene in these existences. As I argued in the beginning of this book, these two aspects are particularly important for the question of how to bring music into the future. In this and the following section, I will further specify and analyse which approaches from contemporary art conservation are particularly relevant to classical music and in what ways.[6] By introducing the concept of the archive, including the notions of archival potentiality and actualisation, I respond to the question of how such concepts are relevant to address the relationship between change and conservation in classical music. However, before doing so, it is necessary to examine the development of contemporary art conservation as a field because this development has generated new insights regarding artistic ontologies and their institutional implications. While illuminating the background of these concepts' emergence, I will also explore further how these concepts relate to ontological reflections in music scholarship.

6   In the interdisciplinary approach of this book, I focus on the issue of conservation to understand how we might approach the existence of musical heritage in and for the future. However, important interdisciplinary overlaps also exist with practices and theories of curation, meaning the making of exhibitions, as well as the selection, display, and presentation of artworks. The so-called curatorial turn in research in the arts is, by now, also visible in classical music (such as educational curricula; take for, example, the recently introduced MA programme Curatorial Practices in Music at ArtEZ University of the Arts, Arnhem, the Netherlands). In music, curation is usually discussed as a means to revitalise processes of programming (for example, in terms of diversity, publicness, and institutional critique) or concert dramaturgies (Eve, 2020; Davida, Pronovost, Hudon, & Gabriels, 2018; Farnsworth, Jakobsson, & Massera, 2021; Spaan & Monaghan, 2018).

Goehr argues that one of the art museum's ongoing primary concerns is the 'keeping' of artworks. Conservation played and still plays a crucial role in this endeavour, but both its understanding and practice have changed. Traditional approaches of conservation practice conceived of artworks as finished objects needing to be materially preserved in or restored to – only if necessary – their original 'authentic' condition or state (Clavir, 1998; Richmond & Bracker, 2009).[7] This approach is referred to as modern scientific conservation, and its practice is informed by a set of ethics focusing on protection, prevention, minimal intervention, reversibility, artist's intent, and authenticity. Integrity of an object was to be kept intact with help of scientific techniques and methods, turning conservation studios into high-tech laboratories (Muñoz Viñas, 2005). Although the introduction of performative and materially changing artworks in the second half of the twentieth century challenged this approach considerably, it is still of vital importance to the field, informing and directing the understandings and methods of contemporary art conservation.

Still, contemporary art marked an important turning point for conservators: it quickly became clear that the community needed to find complementary approaches for artworks that – in one way or another – exceeded the conceptual and practical limits of the ideas and routines advanced by modern scientific conservation. An ethics of protection soon gave way for an ethics of care, a development fostered by the recognition that what is common practice in the museum might not be what is best for the artwork. One example of this is the installation *Strange Fruit* (1992–1997) by American artist Zoe Leonard. This work consists of empty fruit peels that have been sewed and stitched together by the artist, and which are scattered across the gallery floor while slowly deteriorating. This work embodies decay and loss, as it will ultimately disappear from the museum to whose collection it belongs due to its organic materiality. Conservator Nina Quabeck (2019) and art philosopher Sherri Irvin (2022) have discussed how this installation pushes conservators to move beyond common ideas of preservation, as the artist refuses any preventive or restorative measures (for example, by applying chemicals that slow down the fruit peels' natural deterioration process). Both authors demonstrate that the question of how to take care of this work is still an ongoing concern. The controversy and conflict between artist and museum caused by this concern is also an important example for how important the vision and intent of the artist – commonly referred to as the artist's sanction (Irvin, 2005) – has become in discussions of conservation and care.

Change and transformation, as *Strange Fruit* (1992–1997) exemplifies, came to be perceived as inherent to many contemporary artworks' identities, enhanced by the incorporation of new (fleeting) media and materials. Then as now, conservators often had and have to decide between conflicting values (for example, 'protecting' a work materially versus enabling the continuation of its supposed identity through change). At the end of every decision-making process, however, some aspect of the artwork is lost – a fact that conserva-

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7   For histories of earlier conservation practices and understandings in Europe, see Conti (1988/2007); Dupré & Boulboullé (2022).

tors had tried to fight for decades. Importantly, such recognitions have also cast new light on the seemingly 'fixed' ontologies of more easily preservable art objects – such as painting – which are rooted in traditional conservation practice. In his work, Fernando Domínguez Rubio (2014, 2020) argues that any artwork is not merely a finished object to begin with. He draws attention to the fact that 'art objects must be understood, and therefore studied, as ecological forms, which have to be built, achieved, and sustained in and through the world, that is, in and through the order of things' (2020: 8). With his ecological outlook, Domínguez Rubio demonstrates that ontological questions revolving around fixity and change not only concern contemporary artworks but are increasingly understood to be relevant for how we understand, perform, and treat more 'traditional' artworks.

As researcher and conservator Hélia Marçal (2019) illustrates, not long after the advent of contemporary art began the formation of contemporary art conservation as a field. Having its beginnings in Europe and North America in the 1980s, it experienced a significant boom in the mid-1990s alongside the rise of time-based media artworks. Numerous conferences and symposia, cross-institutional initiatives and research projects aimed to provide space for exchange as well as practical help for the conservation of contemporary materials – for example, through the creation of decision-making models and documentation strategies.[8] A broader, overarching goal of these initiatives was to train conservators to deal with these new media. These networks and events led to a grand, emerging body of practical but also theoretical work in contemporary conservation studies, spanning across all kinds of contemporary art forms, such as time-based media art (including film, video, digital, and internet art), installation art, and performance art.[9]

To this day, many of the initiatives and networks continue to exist in one form or another, with new cross-institutional collaborations and projects continuously founded and added. This makes contemporary art conservation studies a very active field, whose existence depends significantly on its position at the intersection of theory and practice. As Marçal argues,

> despite these theoretical insights and practical innovations, contemporary artworks continue to challenge conservation, raising new questions regarding their care. These questions often relate to what the artwork is or can be, which is defined in a process of negotiation between several actors at the point of acquisition, including, naturally, the museum. (2019, section 'Theoretical innovations')

8   See Marçal (2019) for a brief history of the field and an overview of the many initiatives taking place during its development. Notably, she argues that 'the most successful initiatives […] involved inter-institutional collaboration' (2019, section 'Research initiatives on the conservation of time-based media'). Although Marçal's article walks through the important developments in the field, contemporary art conservation lacks a detailed comprehensive written history.

9   Some examples that have shaped the field include Hummelen & Sillé (2005); Dekker (2018); Depocas, Ippolito, & Jones (2003); Laurenson (2001, 2005, 2006, 2013); Nordegraaf et al. (2013); Wharton (2005); van Saaze (2013, 2015); Schädler-Saub & Weyer (2010); Scholte & Wharton (2011).

As artists continue to disrupt the museum's logic of collecting, displaying, and conserving, discussions remain open, requiring an ongoing, critical engagement. Moreover, interdisciplinarity is an indispensable characteristic to these debates and the field overall. Constantly having to learn how to handle new media, technologies, and materials, conservators have had to look for skills and expertise outside their own immediate scholarly and practical backgrounds. This led to the formation of complex networks with external experts and parties, locating the conservation of contemporary artworks as much outside of the museum as inside of it (Marçal, 2019). An example is the inclusion of experts such as video and film technicians or hardware and software engineers in conservation processes of technology-based artworks such as those by Nam June Paik or Tacita Dean (van de Leemput, forthcoming; van de Leemput & van Lente, 2022). The growing dependence on and maintenance of these relationships and obsolete technologies, however, is not unproblematic. As Dirk van de Leemput shows in his doctoral research (forthcoming), such networks further complicate artists' and conservators' roles, tasks, and responsibilities in ensuring the continuing existence of contemporary artworks. While certainly in need of more research, the formation of such specialised networks might also be connected to the fact that the field seems poised to undergo a new wave of disciplinary (re)formation – for example, by conservators further concentrating on specific areas of artistic practice, such as film, net art, bio art, or dance.

Also theoretically, approaches in the field are informed by interdisciplinary perspectives. As Marçal (2019) demonstrates, while practice, approaches, and ethnography have become common methodological tools to research conservation practice (Geertz, 1973; Schatzki, Knorr Cetina, & Savigny, 2001; Stigter, 2016), on a theoretical level, the field has drawn from work in STS (van Saaze, 2013; Latour, 2005; Latour & Lowe, 2011), anthropology and material culture (Gosden & Marshall, 1999; Kopytoff, 1986), and philosophy (van de Vall, 2015; Hölling, 2017b). Such perspectives have helped conservators find new ways of thinking about and understanding artistic ontologies – of which I shall present one approach in the next section – and thus also new strategies for how to conserve artworks. The field has now reached consensus that not only do artworks continue to change in the museum, but that change is a necessary condition for these works to (continue to) exist. Ultimately, even the complete loss or 'death' of an artwork has moved into the realm of the possible, as can be seen with the above-mentioned example of Leonard's *Strange Fruit* (1992–1997).[10] While caring for and managing change (instead of preserving the artwork) has become as primary concern in conservation, what constitutes matters of care and why often sparks debate (Latour, 2004; Puig de la Bellacasa, 2017). To address this problem, scholars in the field have recently turned to feminist and post-humanist care ethics. Marçal (2021, 2022) and conservator Ursula Schädler-Saub (2019) explain that, by doing so, this turn has initiated an interrogation of the role and function of the museum as a 'protector' and gatekeeper of this artistic heritage. Current challenges in the field revolve not only around the conservation of artworks, but the profession's

10   See, for example, Bracker & Barker (2005); Llamas-Pacheco (2020); Rinehart & Ippolito (2014).

relationship with societal issues such as exclusion and inclusion, representation and decolonialisation, post-humanism and feminism, as well as sustainability.

Intriguingly, recent understandings of the ontology of contemporary artworks have also been challenged by the work-performance dichotomy present in music scholarship – which I have unravelled in detail in the section above. Turning to music to better understand the performative nature of contemporary artworks, conservators have both engaged with and reproduced this dichotomy. A notable example that has played a crucial role in the development of the field is Pip Laurenson's paper 'Authenticity, Change and Loss in the Conservation of Time-Based Media Installations' (2006). In this article, Laurenson suggests that time-based media installations resemble musical pieces as 'defined by instructions stipulating their "work-defining" properties and […] be re-executed time and again, in the same way as theatre plays and symphonies are being re-performed without losing their authenticity' (Laurenson as cited in van de Vall, 2015: 288). This understanding has fostered practical innovations, like the introduction of notation in conservation practice, while also stimulating conservators to problematise their own role in 'performing' the work and negotiating indeterminacies inherent in performance.[11] However, approaches like Laurenson's at the same time maintain notions such as authenticity, integrity, and identity of an artwork. This is no surprise given that understandings like this facilitate processes of conservation from a practical and institutional perspective; after all, it assumes that an artwork is in principle preservable, allowing performances and installations to vary, differ, and change.

Yet critiques on the reproduction of dualistic understandings of work and performance in the field are audible. Philosopher and media art researcher Renée van de Vall (2015) questions the helpfulness of working with such essentially dualistic categories, arguing that they are insufficient to properly understand how an artwork exists through time and who and what is involved in this existence. With help of the example of Sol LeWitt's *Wall Drawings*, she draws attention to the issue of changing ontologies of artworks instead of changing performances. Employing the concept of cultural biography as a framework to understand the artwork 'holistically', Van de Vall shows how its ontological status may shift in different stages of its 'career' (2015: 299; see also van de Vall et al., 2011). This biographical approach is Van de Vall's take on a more pragmatic and historical way of studying how artworks exist across time. It accounts for how historical, cultural, and institutional embedments are involved in the changing of ontological characteristics. The concept of biography, she argues, 'not only provides a framework for comparison and generalization; it also solves a problem of how to account for a work's history in our interpretations' (van de Vall, 2015: 300).

More recently, and relating to Domínguez Rubio's work, Van de Vall (2022) has suggested

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11   Notably, Marçal (2017) reflects on the question of how to conserve the societal and participatory dimensions of particularly performance artworks, which are vital to a work's existence (as has been demonstrated by scholars such as Claire Bishop, 2012a, 2012b). This might prove important to classical music: with the rise of new concert formats and thus changing ways of audience engagement, this – albeit rather novel – branch of contemporary conservation studies might provide important insights into the relationship between different concert formats and the musical work.

that instead of focusing on supposed ontologies, conservation needs to pay more attention to artworks' 'ecologies', meaning the 'material, atmospheric, semiotic, and imagined conditions in and through which something […] exists, subsists, and becomes' (Domínguez Rubio, 2020: 8). Van de Vall (2022) proposes that artistic ontologies – and how they are understood and practised in contemporary art conservation – are the result of the artworks' ecologies, rather than the other way around. Ontologies are not given but made: this makes it necessary to examine the concrete institutions, practices, and actors that sustain a work. In my research, I employ a theoretical framework that relates to Van de Vall's demand to investigate an artwork's existence over time pragmatically: media art conservator Hölling's take on the archive, including the notions of archival potentiality (meaning the potentials and opportunities rooted in an artwork's archive) and actualisation (how this archive is realised in and by practice). I have selected this theoretical approach for several reasons. It shifts attention from the artwork 'itself' to the institutional, historical, and professional practices and materials that are involved in continuing its existence over time. In doing so, the framework can expand my understanding of who and what is involved in this existence, as well as demonstrate the richness and variety of these elements. Moreover, instead of proposing that an artwork is indefinitely open to any context, the concepts highlight and follow the contingencies in which an artwork's existence is embedded and constantly negotiated. This way, the theory also presents an interesting connection to relational musicology and mediation theory in music scholarship, problematising and moving away from long-established, mostly descriptive work-performance dichotomies. In the following section, I will elaborate on these claims in more detail and further explain how I understand and use Hölling's theory.

2.3 The archive, archival potentiality, and actualisation

From dark rooms full of dusty documents, cardboard boxes, and microfilm readers to futuristic digital facilities with complex data storage systems on modern computer servers: the term 'archive' bears many associations and images. Yet, at first glance, an archive seems to be a physical place or space. The Merriam-Webster Dictionary proposes that an archive is 'a place in which public records or historical information (such as documents) are preserved' or 'a repository or collection especially of information' (Merriam-Webster Dictionary, n.d.). In the archive, information and materials are stored, catalogued, indexed, classified, and preserved. But not only that; they are also forgotten and eradicated. As the French philosophers Michel Foucault (1972) and Jacques Derrida (1995) have pointed out, the archive is by no means a neutral space. Rather, it can be understood as a complex apparatus or system in which knowledge is produced and governed. This apparatus operates within the confines of economy, control, and regulation, making archiving an inherently political matter. In addition to this, new media researcher Gabriella Giannachi (2016) underlines both the diversity

and ambiguity of an archive's functions, which she argues result from the many heterogeneous relations it includes and enables (p. xv). This ambiguity is one of the reasons why archives have become a subject of interest in various fields, such as philosophy, institutional politics and governance, postmodern and postcolonial thought, as well as material cultures and cultural memory.[12] Stimulated by the desire to grapple with political and cultural effects – such as the question of what is kept and excluded and thus erased by the archive – archival sciences and archive studies have experienced a boom in the last decades. This has been referred to as the 'archival turn' (Callahan, 2022). Consequently, 'at a time when the concept of the archive is both more widely known and less fixed in its meaning', researchers like Sue Breakell – former archivist at Tate – argue that the archive has become prominent in art discourses (2008, para. 7). There, the concept has been explored in relation to artistic practice (Federici & Saba, 2014; Foster, 2004; Pas, 2007). In short, the archive has evolved from a physical space or repository to an important theoretical concept, with its meaning and history being complex, multilayered, and constantly evolving.

In this section, my aim is not to give a complete account of a rich and intricate concept. Instead, I am interested in exploring the intersection of the archive-concept and the work-concept, and the ideas and meanings that this relationship can bring to the issue of conservation. In doing so, I aim to give some first insights into the question of how approaches from contemporary art conservation address the relationship between conservation and change, and how this is relevant for opening up the heritage of classical music. In what follows, I will thus first introduce Hölling's reading of the archive, before showing how I understand and use the concept in my own work, and how it has inspired the selection and analysis of my case studies.

In her book *Paik's Virtual Archive: Time, Change, and Materiality in Media Art* (2017a), Hölling explores issues of change and variability in and through several of Nam June Paik's media artworks with help of the concept of the archive.[13] She proposes that the archive occupies a crucial role in forming and maintaining an artwork over time. Instead of looking at an artwork as an object, she argues that artworks 'are products of humans and their culture; they are dynamic entities, whose materiality can be defined only in a network of relations that includes social and temporal aspects' (2017a: 11). The archive, according to Hölling, presents the sources based on which this entity exists and takes form (2017a: 9–10). She states that

> conceiving of an artwork apart from its archive is unthinkable because the artwork is irreversibly bound to its archive, which shapes its identity, and because its actualization is dependent on the archival realm. The archive is, in fact, an active part of the artwork, rather than some distinct and static repository of documents. (2017a: 160)

12 See, for example, Foucault (1972); Derrida (1995); Stoler (2002); Taylor (2003).

13 Notably, Hölling builds her theory on the philosophical work by Henri Bergson (particularly the Bergsonian theory of time as duration or durée; see Bergson (1889/2005); and Gilles Deleuze's reading thereof (1966/1992).

In this archive, two dimensions are of vital importance. One of these dimensions consists of materialities, meaning the material components that are required to bring an artwork into existence (2017a: 142–148). Staying with Hölling's example of Korean artist Nam June Paik's artistic practice, these can, for example, be technologies such as TVs, objects like plants, documents specifying the installation of a work, or gallery spaces. The other dimension is the so-called "virtual" sphere: this dimension comprises nonphysical elements such as tacit knowledges, skills, attitudes, and memories (2017a: 148–153). Take, for example, the maintenance and reparation of technologies, the interpretation of documents, the handling and installation of objects, or how actors remember or understand the artist's practice. Both of these dimensions – material and virtual – are what constitute the archive. They include all material and virtual components that direct the formation and conservation of the artwork.

On the basis of this, Hölling describes the notion of 'archival potentiality' and the subsequent process of 'actualization' (2017a: 154, 158–160). A fitting example that helps to explain these concepts included in Hölling's book is Paik's multimedia installation *TV Garden* (1974). This installation artwork has existed in different ways in various museums over time, in radically different constellations (2017a: plates 6–9). The reason for this is that this artwork's archive includes many different material and virtual components, and thus also possibilities regarding what this work can be and how it exists. This is archival potentiality: a state of openness or potential existences. In this state, actors engage with an archive's contents creatively in order to collaboratively 'actualise' the artwork, to bring the artwork into existence. This means that what *TV Garden* (1974) concretely *is* depends on how the contents of the archive are negotiated, selected, and enacted in a given setting. Yet the artwork is also not completely open to anything. While the changeability or variety of actualisations are the result of how actors engage with an artwork's archive differently, the artwork is always fundamentally dependent on its archive. Hence, all that the artwork can possibly be (or become) is generated from its archive. This explains why even a radically different actualisation of *TV Garden* (1974) can still be considered *TV Garden* (1974). What follows from this is that 'not only does each new actualization emerge on the basis of the archive, but every new actualization of a work enriches its archival potentiality and generates subsequent realizations' (Hölling, 2017a: 154). A radically different actualisation of *TV Garden* (1974) will therefore enter the artwork's archive and become a potential resource or reference for the work's future actualisations, further stimulating the continuity of the artwork. Actualisation, then, is the process of creation of an artwork brought about by the various entangled actors who make 'archival judgments' (decisions) about a work's archive in the state of archival potentiality (Ibid.). Changeability is an inherent part of the archive.

Importantly, Hölling's conception of the archive implies a specific understanding of time and temporality. The archive is hetero-temporal and nonlinear, meaning that it both includes and enables the coexistence of various temporalities (for example, through the different materials and actors it relates). Thus, notions such as history, the past, and pastness do

not present static domains from which the archive draws or on whose basis it works retrospectively. Rather, different pasts and histories brought together in the archive become part of how an artwork can be actualised in the present. The archive thus not simply manifests the past but is a 'dynamic entity directed to the future' (Hölling, 2017a: 163–164). Hölling elaborates that, consequently, in the context of conservation of media artworks, this means

> not to return to a past 'original state' or to yield to a preoccupation with a distant past, but to effect an active and creative 'presencing' of artworks; it is the creation of the archive that will guide future iterations of the work. (Ibid.)

While this quote might remind some readers of Hennion's concept of 'instauration' in mediation theory (see section 2.1), it also highlights a noteworthy contradiction within Hölling's theory that refers to the work-performance dichotomy explored in the previous sections. While Hölling seeks to problematise the twofold approach between work and performance, the distinction between archive or archival potentiality and actualisation appears to mirror this binary. How is actualisation different from performance, and is the archive ontologically not similar – albeit a more sophisticated and expanded version – to an essentialist conception of the work's identity?

The answer is no: the concept of the archive, with its notions of archival potentiality and actualisation, draws attention to the many practices, materials, and actors through which an artwork is subjected to a continuous process of becoming. Instead of advertising the artwork as something that has an identity of its own that can be performed or performed differently, the theory enables an understanding of the continuing existence of artworks as being fundamentally dependent on the archive and the interactions and relations that it gives rise to. Consequently, this theoretical framework views conservation as 'a set of intertwined discursive and physical practices related to the archive', thus inviting us to shift focus to what the archive consists of, and how it is engaged with and interpreted in and through practice (2017a: 167). The material and virtual sphere conceptualised by Hölling thereby help further understand and pinpoint the richness and limits of the archive's contents and the relations and interactions to which these contents are subjected in the present.

In this relational understanding, the theoretical framework bears important similarities to music mediation theory (such as those of Hennion and Born), although these are not picked up by the author. Yet Hölling's theory goes a step further: rather than describing a network of relations, the archive becomes a means to reveal and interrogate possibilities for future action and actualisation. Actualisations are thus not mere performances, but they *are* the different and changing existences of an artwork – which are all dependent on the archive and archival potentiality. These actualisations change because the archive and its contents transform, too: it is a (con)temporary, continuously changing, and changeable entity marked by inexhaustible archival potentialities.

In her book's conclusion, Hölling notes that 'it is up to us to discover how to think with and about them [artworks' archives]' (2017a: 168). Encouraged by this, I do not use this theoretical framework to trace particular musical works or their archives over time. Instead, I employ the framework to deepen my understanding of *how* classical music is brought into existence – how it is, so to say, continuously actualised. I have thus chosen to empirically explore matters of actualisation, and how this process takes place in classical music. The reason for this is that, as mentioned already, classical music and its tradition consist of well-established aesthetic rituals and conventions, anchored in well-established practices and materials. These play an important role in why it is so difficult to innovate. The theoretical framework enables me to address and problematise this and conceptualise the strategies, mechanisms, and modes involved in processes of actualisation in classical music.

This is important because it will enable me to investigate two important factors when thinking about how to bring this music into the future. First, understanding how processes of actualisation in classical music take place will also give insight into the limits and constraints of how classical music and its archives are actualised, meaning where changes and innovations might not be easily possible. These boundaries might be directed by and contingent on the archival potentialities, meaning the archive's contents; at the same time, especially in a tradition-laden practice such as classical music, certain ways of actualisation might have become solidified and reinforced over time. Particularly the latter point hints at the role that actualisation might play in the relationship between conservation and change. In short, knowing where these boundaries are located facilitates finding ways of innovating this heritage which are both relevant to and doable in practice. Second, and closely related to that, by doing so, it becomes possible to acknowledge, reveal, and explore the neglected or unused potentials for this music's future actualisations. This helps open up and create new and alternative ways in which this music might be able to exist – without presenting a complete break with its archives and its traditions. This is, I believe, especially important for classical music, whose practice is highly professionalised and routinised. In short, by looking at everyday practices of actualisation, I also look at the possibilities of the mundane or, as Domínguez Rubio formulates, help to imagine how worlds can be produced otherwise (2020: 335).

Another, more pragmatic reason for my focus on actualisation as a practical process – rather than on the artwork's archives 'themselves' – rests on the fact that archives are fragmentary, dispersed, and continuously changing due to the creation of new and different actualisations. What the archive is also depends on how its potentialities are actualised. Whereas it might be feasible to roughly draft or map the contents of the archive of an artwork such as Nam June Paik's *TV Garden* (1974), this becomes much more difficult for works of classical music – works that have often existed for centuries and whose actualisations are innumerable and hardly traceable over time. Looking at actualisation and how an archive's contents are negotiated in practice is thus more interesting and relevant if we want to explore how artworks are transmitted and continued through time.

An inherent issue to the matter of actualisation is that there is not 'one' or *the* way of actualising or transmitting artworks, be it time-based media art or classical music. The theoretical framework has therefore inspired me to explore and reflect on the richness and variety of processes of actualisation, further highlighting and exploring the multiple ways in which this music exists. In doing so, I understand actualisation as a continuous process embedded in the relational intertwinement of materials and practices. This has led my empirical investigations beyond the concert or musical performance, both of which have been well researched regarding their rituals and practices (Bonds, 2006; Cressman, 2016; Johnson; 1996; Small, 1998; Tröndle, 2020). To reflect on the multiplicity that characterises the theoretical framework, I move across three different 'realms' of classical music practice in or through which this music is actualised: institutions, technologies, and bodies. These three dimensions reveal important insights into how processes of actualisation – and conservation – of classical music might take place outside the immediate context of the concert event, in other, sometimes neglected everyday practices. They might also demonstrate how mechanisms or strategies of actualisation are unique to the respective realms. Examining these unique strategies and mechanisms in detail help improve our understanding of what future actualisation could look like – or not. The realms – institutions, technologies, and bodies – are represented in three case studies, through three material artefacts embedded in particular classical music practices, which I will reflect on in more detail the next section. This approach might thus not only uncover the conventions and possibilities of how musical works are or can be actualised but also what else – next to these musical works – might be considered important for this music's tradition and heritage.

To conclude, the relevance of Hölling's theoretical framework for classical music rests in tracing and understanding past and current ways of actualisation, with whose help new entry points for exploration and innovation might be revealed. Because this reading of archival theory is rooted in contemporary conservation studies, it allows us to question what actualisations might look like in the future. Institutional archival critiques have already asserted that the archive is never neutral; that it is an essential instrument for the production and maintenance of power and control. Yet this argument can be easily misused when left at that. Archival theories might help us understand not only these limits and contingencies but also possibilities and potentials. Hölling's theoretical framework sparks the imagination instead of suffocating it. This is the reason why I suggest taking this framework into classical music and my empirical case studies, to explore and develop its possibilities and potentials. This might not only provide new entry points into classical music and its traditions but also support me with evidence for my claim that classical music can profit from contemporary art conservation studies – and how so specifically.

In the following section, I will dive deeper into the methodological background of this research project, further elaborating on my case studies and their selection as well as the methods and materials I use.

2.4 Case studies and methods

How, then, to research processes of actualisation in classical music? Methodologically speaking, the theoretical framework connects intimately to empirical research in the sociology of the arts, as, for example, the work by Howard S. Becker (1982/2008; see also Becker, Faulkner, Kirshenblatt-Gimblett, 2006). By investigating how classical music is actualised or transmitted over time, this research aims to problematise the binary between musical work and its performance. As Becker, Robert R. Faulkner, and Barbara Kirshenblatt-Gimblett (2006) describe,

> the work at any stage of its development, is thus something no one – not even the one called the artist – meant to take just that form. It arises, instead, from what they all did in response to one another, the result being perhaps what no one wanted and almost surely what no one person intended, but nevertheless the result they now all accept as the work they have made or to whose making they have contributed. (p. 3)

Not unfamiliar to Hölling's relational and contingent understanding of the artwork, Becker and his colleagues – importantly, also Small's understanding of 'musicking' (1998) falls into this strand of work – draw attention to the collective work needed to make artworks. Because these authors understand artworks as embedded in complex and heterogeneous collaborations, in such research the analytical and methodological spotlights are placed on the actual social and material activities shaping the artwork's existence. I, too, understand and examine classical music as consisting of a range of 'sociomaterial' heterogeneous materials and practices. The term 'sociomaterality' describes that the social and the material are entangled, meaning that materials play a fundamental role in constituting and shaping social life (Orlikowski, 2007, 2010; Orlikowski & Scott, 2008).

Art sociological approaches like Becker's or Small's are therefore helpful to examine the role that materialities and objects play in social interactions. To account for these materialities, STS plays an important role in this research. STS scholars have done an enormous amount of historical and empirical work to investigate and understand how objects and technologies shape and denote social behaviour and interaction – for example, through the concept of 'scripts' (Akrich, 1992; see also Bijker & Pinch, 1984; Bijker, 1995). These scholars' insights are important to understand the role of materials and objects in processes of conservation and actualisation. In her work on urban planning, STS scholar Anique Hommels (2000, 2005a, 2005b) has, for example, coined the term 'obduracy', meaning the resilience of these infrastructures to change or be modified, to describe the stability or rigidity of urban infrastructures such as cities. While cities are dynamic and flexible places where change constantly happens, they are also highly durable, and – once in place – difficult to transform, pointing to how the complexity of the relationship between change and stability is rooted

in the materiality of infrastructures. Other research in STS has explored the role of material artefacts in classical music history and tradition, further demonstrating how classical music's meanings and practices are deeply interwoven with material artefacts and environments (Bijsterveld & Peters, 2010; Peters & Cressman, 2016; Peters 2009, 2020). As these artefacts and technologies play a vital role in maintaining this music's history, tradition, and practices, they become indispensable objects of analysis when wanting to understand how classical music is actualised through time.[14]

The role of STS in this book is twofold. Because of its empirical focus on materiality and material agency, STS has informed the underlying understandings of this research and created a shared ground on which the two fields of contemporary art conservation and classical music could meet. It has proven an indispensable asset in building a bridge between theoretical and practical understandings in the two fields. Additionally, STS has inspired the selection and scope of my empirical case studies, as well as the methods I use to research them. Concretely, it has led me to ask how material artefacts used in classical music practice shape this music's works and traditions from 1950 to 2020. By exploring this question throughout my case studies, I aim to better understand the role that materials and their surrounding practices play in how this music is actualised. The selection and scope of the three case studies or objects corresponds to the three realms outlined in the previous section: institutions, technologies, and bodies. This means that for each object, I explore one of these dimensions more specifically. In this regard it is important to note, however, that both these dimensions and artefacts are not as homogeneous as my initial categorisations suggest. Rather, they are both heterogeneous, involving various (overlapping) materials and practices. These realms and artefacts should thus be understood as starting points for acknowledging and understanding the richness of the entanglement between materialities and practice in the context of actualisation.

Based on this, the three artefacts which form the focus and scope of the three case studies are concert programme booklets, classical music streaming applications, and a classical music instrument (the violoncello). The selection of these specific artefacts was further helped by the different materialities embodied by the objects: (1) print, paper-based concert programmes of orchestras (which are booklets that incorporate and represent musical knowledge through writing and visually); (2) digital classical music streaming applications for mobile devices (which enable old and new ways of cataloguing music, interacting, and listening); (3) and the violoncello as an instrument (which raises issues revolving around embodied ways of musical learning and teaching as well as how, in this process, aesthetic ideas are negotiated at the conservatoire and a festival). Connected to this, the sequence of case studies in the book is not arbitrary: it moves from more 'tangible' material forms like paper to more fleeting ones such as digital technology and, finally, to the relational embodiment of a musician coming together with their instrument.

14   Also sound studies in STS have provided an important breeding ground for the examination of the role of instruments and technologies in musical cultures, as well as how these instruments can be researched. Notable examples include Bijsterveld & van Dijck (2009); Pinch & Bijsterveld (2003, 2004); Pinch (2017); Pinch & Trocco (2002).

While selecting such different material artefacts might be argued to pose the problem of incomparability between the cases, I believe that it is this diversity grants a deeper understanding of the complexity and specificity of the practices involved in the conservation – and potentially opening – of classical music over time. The theoretical framework will allow me to draw these practices together more coherently: in each case study, I investigate the relations between materials and practices that are – deliberately or unintentionally, explicitly or implicitly – involved in processes of actualisation. Thereby, I have followed, interviewed, and observed a variety of actors, which I will elaborate on in more detail below. The three case studies were reviewed and approved by the Ethics Review Committee Inner City Faculties of Maastricht University. Most of the actors involved in this study have, per my ethical plan, not been anonymised. Consequently, I obtained consent from my interviewees for the quotes I use from our conversations. An exception to this are the students and teachers of the Conservatorium Maastricht appearing in the third case study on the violoncello, who have granted me permission to quote from our conversations anonymously (Chapter 8; see also section 2.4.3).

The time frame in which these case studies play out ranges from 1950 to today. This period is covered by the case studies in differing ways; not all of them are analysed for the whole period. I chose the post-war period as a broader point of departure, as this marked a point when the musical landscape was in flux and a lot of rebuilding and reorganisation in musical institutions took place, initiating fundamental discussions about the role of classical music in society. Geographically, the case studies are located in Austria, the UK, Germany, and the Netherlands. These countries have a well-established classical music history and tradition, as well as an active classical music cultural sector. Including these countries corresponds with my understanding of the social construction of classical music while providing coherence in terms of the Western European scope of this research.

2.4.1 Concert programmes

The first case study investigates the concert programmes of two major European orchestras, the London Symphony Orchestra (LSO, founded 1904) and the Vienna Philharmonic Orchestra (VPO, founded 1842) (see Appendix I). Concert programmes are commonly brochures that concertgoers can obtain before or shortly after a concert, and which incorporate textual and visual information on the musical works, the performers, and the ensemble. As Christiane Tewinkel (2016) argues, these objects have become important resources for scholars to understand processes of knowledge production in music as well as the canonisation of musical works, canons, and repertoires (p. 40). Since concert programmes are produced within the boundaries of specific institutions (such as orchestras and concert halls), they also reflect changes in (national) concert life while drawing on already existing pools of expertise from scientific fields like musicology and (music) history (Thorau, 2013, 2020). In addition, they are popular collectibles or keepsakes. This further underlines these artefacts' capability to either safeguard, fix, and transmit particular contexts and interpretations

through time or offer new and alternative ideas and readings of well-known music.

I selected these orchestras because both ensembles are crucial to the history and development of classical music in the Western world. Located in international tourist destinations, both orchestras are popular cultural venues with substantial resources at hand – an aspect that is further underlined by the fact that both orchestras are able to keep extensive historical archives.[15] Archival research of the concert programmes was conducted for the period between 1950 and 2019 to track changes in how musical knowledge is generated and communicated. In-depth analyses – based on an inductive coding process revolving around the question of how classical music is actualised in these booklets – were then conducted for the concert programmes of each orchestra within five-year steps, prioritising the programme of the opening concert of that year's season (1950, 1955, 1960, 1965, and so on) (see Appendix II).[16] Special concerts, tours, and festivals were excluded, as these often feature non-regular concert programmes that are not necessarily part of the everyday practices of the orchestras. In line with my sociomaterial perspective, I approached these artefacts holistically: I coded each programme in its entirety, including all structures, contents, and texts, as well as design, layout, and visual features such as images, examining the contents and kinds of information mediated through these artefacts.

Furthermore, nine qualitative, semi-structured interviews were held with (former) staff of the orchestras, authors of programme notes, and one curator of music ephemera based at the British Library in order to understand the everyday practices involved in making these artefacts (see Appendix III). Each interviewee was in some way involved in the making of concert programmes, from management and development to commissioning and writing, designing, as well as archiving and collecting. These interviews were guided by a topic guide focusing on past, present, and potential future practices of concert program production, thus providing important complementary information to the archival research. All interviews in this research project were transcribed, coded inductively, and analysed according to themes.

2.4.2 Classical music online streaming applications

While concert programmes have been around in classical music life for more than a century, digital classical music streaming applications present a much more contemporary technology. While popular music streaming services like Spotify, Apple Music, or Amazon Music include a wealth of classical music, the services IDAGIO and Primephonic – start-up companies located in Berlin and Amsterdam, respectively – were developed and optimised solely for it. This makes them particularly interesting resources to investigate when it comes

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15 While this certainly presents an argument that supports including these two orchestras in my research, the absence of sophisticated programmes – or the incapability to systematically collect, store, and archive them due to organisational contexts – in less acclaimed or famous ensembles is equally relevant to research in the future. A reason for this is the intimate relationship that these artefacts have to the keeping of institutional and music history, memory, and heritage (as I will show in Chapter 4).

16 All materials in my research were coded with help of the software ATLAS.ti.

to how classical music is transported into and 'actualised' in the digital realm, meaning how it is structured, catalogued, curated, and presented. As Jonathan Sterne (2003) argues, 'technologies manifest […] a set of functions developed from and linked to sets of cultural practices' (p. 8). This case study is also relevant regarding what new cultural practices these digital technologies could potentially enable in the future, as they affect and shape our understandings of and interactions with this music today and in the future.

I selected IDAGIO and Primephonic because, at the starting point of my research, these services were the most downloaded classical music streaming services on the market based on their ranking in the iOS and Android or Google Play app stores (see Appendix I). Like most other streaming services, IDAGIO and Primephonic can be downloaded as apps to mobile phones and tablets or be used on desktop computers. As the services are free to download and reach a potentially even broader audience than, for example, concert programmes, they allow an easy incorporation of classical music into everyday activities through these technological devices. As I will show in Chapter 6, both services offer not only a seemingly endless catalogue or archive of past music in the form of recordings but also a thoroughly curated listening experience by including features such as radios, mood players, or playlists.

Similar to the case study of the concert programmes, I conducted an extensive content analysis combined with semi-structured, qualitative interviews with (former) staff of the two companies. I was particularly interested in the development of the software from the perspective of the two companies. In line with the question of how classical music is actualised, I examined how the software made accessible the musical contents through navigational infrastructures, strategies of organisation, and curation, as well as the functions that the two apps presented to the users. This was challenging for a few reasons. First of all, it is difficult to capture software that is rapidly changing. Updates, changes in content or functions, or bug fixes happen frequently in all kinds of apps. To guarantee both feasibility and a systemic analysis, I decided to conduct data collection during a brief but intense time period in the summer of 2020, spending roughly two weeks of collection for each app. In these four weeks, I worked my way systematically through the apps' functions, categories, and features, taking extensive field notes and over a thousand of screenshots, which became the main material for my inductive coding process and thematic analysis.[17] Although both apps are free to download, all functions are commonly only accessible for subscribers who pay a monthly fee.[18] I subscribed to the services for the duration of data collection, as this gave me access to all features, functions, and content. As a result, this case study presents the two apps as they were at a certain brief point in time. This does not, however, make the data collection less effective or this study less relevant. IDAGIO and Primephonic are significantly shaped by former and current (mainstream) practices, functions,

[17]   For this, I used my own mobile phone, an iPhone 11, and registered a new profile – I had been using IDAGIO personally before out of curiosity – in order to not let my previous music listening habits interfere with the default settings of the apps.

[18]   The free modes of both apps restricted some functions or features while also containing advertisements (see Gable, 2023a).

and ways of organising and curating in digital music streaming, which have become well established. This is why my analysis remains relevant in providing broader insights into how music is handled, classified, selected, and curated in digital streaming environments.

Yet there is one significant limitation of this study. While I could easily access all the contents and features of the apps, I was granted no access to how the algorithms were developed – for example, regarding personal recommendations systems or music suggestions – or the results that were presented by the search engines. The reason for this is that music streaming, particularly in a start-up context, is a precarious economic venture in which technological insights and developments are often carefully safeguarded from competitors. This became clear when, in August 2021, Apple bought Primephonic to expand their own offer for classical music listeners. Primephonic was taken off app stores in September 2021, with Apple intending to launch its own classical music streaming service that 'harnesses Primephonic's existing user interface' (Subin, 2021).[19] This takeover has not affected data collection but arguably makes this study even more relevant, as these companies affect the cultural meanings and significance of this music through its combination with ubiquitous technologies. My detailed insights on Primephonic will also prove helpful to understanding the origin of Apple's classical music streaming service, as they contain and build on material that is now inaccessible. This case study, one might argue, secures and writes a piece of digital classical music history.[20]

Finally, the insights from this analysis are complemented with interviews. As in the first case study, these interviews revolved around the everyday practices of the two companies' staff, who are or were involved in the development, maintenance, curation, and distribution of the apps. Due to the aforementioned competitiveness of the sector, it turned out to be problematic to find interviewees who were willing to talk openly about their work. Conflicts of interest, such as representative obligations, surely affected the conversations. Through a process of snowballing, I connected to former staff members of particularly IDAGIO, who were more open to talk. This resulted in five interviews with former and current staff in total (see Appendix III). Four of these interviews were conducted with IDAGIO staff, while only one person from Primephonic was willing to meet with me. These interviews, however, also need to be treated carefully: as most of these interviewees had been laid off by IDAGIO (instead of leaving voluntarily; again, the competitiveness and precarity of the sector plays a role here), I cannot exclude the possibility that these conversations were tainted by resentment towards the company, resulting in overly prominent criticisms of the company's practices and ways of working. As both apps are very similar, however, some of the reports of IDAGIO staff proved insightful regarding Primephonic. Due to the Covid-19 pandemic, these interviews were conducted online via Zoom or Skype.

19   This service was supposed to launch in 2022, but it is not on the market as of the point of assessment of this research.

20   Please note that in the case study in Chapter 6, I use present tense to analyse the two services. The reason for this is that Primephonic was still online when I conducted the research. I use past tense when discussing it on its own in some places outside of Chapter 6, but in general present tense is used where the apps are discussed together.

2.4.3 The violoncello

The last case study focuses on a classical music instrument, the violoncello. Indispensable to the making and learning of music and musical craft, instruments are those objects that can be considered closest to musicians; they accompany the musicians throughout their professional and personal lives. In this case study, I aim to understand how classical music is taught, learned, and practised in and through playing an instrument. I focus on the embodied, material dimension of playing the cello, in which human (cellist) and non-human (cello) might be argued to become 'expert' maintainers or conservators of classical music through their engagements. I do this at two sites ethnographically: the Conservatorium Maastricht and the 2020 Cello Biennale Amsterdam.

The cello has been selected for two reasons. First, it is an instrument that has a firm place in classical music culture and has a long history, in which its design and ways of playing might have continually evolved to the instrument it is today, but which has remained relatively stable over time. As Karin Bijsterveld and Marten Schulp (2004) explain, 'the instruments of the symphony orchestra have basically retained their features since the mid-19th century' (p. 649; see also Stowell, 1999). Second, at the beginning of this research, I began to learn how to play to cello. I hoped to gain a better understanding of the craft, including its complexities. While my cello has become a precious part of my personal development, I will not reflect on my learning processes autoethnographically. It is important to note, however, that they have proven indispensable to conducting my ethnographic research. Most of the time, my own playing has enabled me to follow and understand what was going on, as well as ask concrete questions about these human-cello engagements.

Particularly at the Conservatorium Maastricht, this has granted me the ability to easily connect with students and teachers. In a limited ethnographic study during the academic year 2019/20, I followed three classes of cello students of both the Bachelor and Master of Music in Classical Music at the Maastricht Conservatorium. I use the term 'limited' to signal that I have not studied these classes for the entire duration of the academic year. Instead, I visited in monthly intervals for a few days each, the scheduling completely dependent on the availability of the teachers. As practising musicians and soloists, the teachers often had long travels that resulted in irregular, sometimes spontaneous schedules. My research was supported by the board of the conservatoire, which granted me access to the institution as well as to relevant administrative documents. They also communicated my presence to the teachers and students in advance, without disclosing too many details of my research in order to preclude bias in my findings.

In these visits, I observed students and teachers in one-to-one classes and group lessons as well as during class concerts and in-house auditions. I took the role of what David Walsh and Clive Seale (2018) have called an observer as participant, favouring observation over participation. I usually sat quietly, taking field notes in a notebook, not engaging in any ongoing conversation. This 'outsiderness' was soon commented on by the cellists, who

began to interrogate me on my field notes and what I was researching exactly, as well as the progress of my cello playing. This, however, presented further opportunities to examine their experiences and understandings of what was going on. I typed up my field notes immediately after the observations and conversations in order to avoid forgetting anything and to capture my impressions as freshly as possible (Emerson, Fretz, & Shaw, 2011). This mostly happened on the same day; otherwise, I typed up my notes the next day.

My on-site visits were discontinued abruptly from March 2020 onwards, when the Covid-19 pandemic hit. While I stayed in touch with teachers and students via email and Facebook, for a few weeks there were no lessons to observe, as all were engaged in finding and setting up alternative technological infrastructures through which to meet. One class began to meet their teacher over WhatsApp video chat, in which I could not participate, forcing me to drop observations for that class, which was the smallest of the classes I had been observing. I continued to follow the other two classes: while one teacher met his students regularly via video call, which I could easily join, the other teacher requested video recordings from his students. He would then give extensive written feedback via mail, to which both the teacher and students granted me access. The online lessons, screenshots, videos, and the teacher's written feedback became part of the material I later analysed.

Yet this situation forced a radically new and difficult environment on the musicians, which also affected my research. Listening became a challenge for all participants, as precarious Wi-Fi connections often resulted in distortions and lags in sound and image. Moreover, teachers could not lead, correct, or direct students via touch, an integral means of any education that relies on the senses (Harris, 2021). Also observing became difficult: depending on the set-ups, I was not able to see or recognise the ways of playing, fingerings, bowings, gestures, and postures properly. I frequently had to actively reconstruct and complement information myself, potentially opening up more room for miscommunications and misinterpretations. Despite these problems, the shift to online education was also enlightening regarding what habits, kinds of feedback, and interactions continued to exist. In its radical stripping down of information, the online environment paradoxically seemed to highlight the core activities of learning and teaching. Hence, the online material complements the on-site material. In my analysis and the resulting chapter, however, I prioritise the on-site material, of which I was luckily able to secure a significant amount (see Appendix IV). My field notes and the other documents were all coded inductively and later analysed according to themes.

A few months in, when I had obtained some first insights into the processes and interactions in the classes, I began to conduct qualitative, semi-structured interviews both with the students and the teachers (see Appendix III). This resulted in ten student interviews and an interview with each one of the three teachers. The interviews were split in half: the first half was dedicated to the cellists' experiences, practices, and thoughts on learning and teaching how to play the cello, providing ample opportunity for me to follow up on observations and situations from the classes. In the second part, I turned the con-

versation to their cello, inquiring about their relationship to the instrument and its role in their lives. This meant that interviews mostly took place at the conservatoire or in its proximate environment, as I asked students and teachers to bring their cellos to the meetings so that they could show, demonstrate, and play it.

While the research at the conservatoire provided insights into how musical education takes place in and through human-cello engagements, the 2020 Cello Biennale Amsterdam presented a site at which these engagements moved away from a purely educational context and became more open. This also meant moving from everyday practice to an extraordinary event solely dedicated not merely to cello music, but to the cello as an instrument. Founded in 2006, the Cello Biennale Amsterdam is a biennial, ten-day-long festival dedicated to the cello. With roughly one hundred events, 'the Cello Biennale Amsterdam forms a meeting place and source of inspiration for cellists and music lovers from all over the world' (Cello Biennale Amsterdam, 'Festival Info'). The event is a celebration of the instrument, its traditions, and its classical repertoire, but it also offers a wealth of world, jazz, and contemporary classical music, as well as alternative performances inspired by theatre or opera. Consequently, my aim was to examine how tradition and innovation are negotiated and practised in and by the festival's organisers and participants.

The Cello Biennale's eighth edition took place from 23 to 30 October 2020. Only one week before, it became clear that the rising Covid-19 case numbers in the Netherlands would prevent an in-person event. Originally a ten-day festival running from morning to night, the initial programme was reduced to eight days, only two or three concerts taking place per day. These events were streamed online and broadcasted on the Dutch NPO Radio 4 and YouTube for free. The festival moving online also meant that important and well-established activities and events in the programme – the mixing and mingling of visitors, masterclasses, educational activities, collective musical breakfasts, 'underground' concerts, as well as in-house elements such as in-house luthiers and markets – had to be cancelled. This was a huge blow for the community around the Chapter as well as for my research. It was no longer possible for me to conduct on-site ethnographic research during the whole ten days of the event, as I had planned. In addition, I had scheduled interviews with visitors, participants, and organisers of the event. I also could not visit instrument builders, master classes, or the more alternative evening concerts. In short, I was not able to properly enter the community of the Cello Biennale, as the circumstances of the online event radically differed from the planned in-person engagement.

Yet, similar to the research at the conservatoire, the online environment promised to reveal the core activities and focuses of the programme. I conducted observations of almost all concerts online, from home, during the eight days, taking extensive field notes (see Appendix IV). My focal point of attention shifted to the relation between the 'traditional' events on the one hand and the rather alternative or innovative concerts on the other. Additionally, I interviewed four participants (all of whom had been connected to the

Cello Biennale for a longer time), ranging from performers and organisers to a competition participant (see Appendix III). These interviews revolved, in equal parts, around the interviewees' experiences of and thoughts about the 2020 Cello Biennale as well as previous editions so that I could get an idea of the festival under 'normal' circumstances. Through these extensive observations and field notes, as well as the interviews, I was able to get an adequate impression of the event and its significance for the community and practitioners.

In the following chapter, which marks the transition into the first part of this dissertation, I will transport the readers into the world of concert programmes. I will kick off Part I with an introduction into the insights and shortcomings of the academic debates on concert programmes, followed by the empirical case study on the concert programmes of the LSO and the VPO between 1950 and 2019.

Part I

Concert programmes

3

From text to artefact: Approaching concert programmes anew

3.1 The rise of concert programmes

Most Western classical music concerts today cannot be imagined without concert programmes: those printed booklets – sometimes flimsy, sometimes hefty – that audiences can obtain before or after the actual concert. For many audience members, programmes have become natural, or at least readily accepted, companions of their concert experience. They can read them before or even during a performance and learn about the musical works, the careers of the performers, or the members and history of the ensemble. They might discover a product that they like in an advertisement or study the schedule of upcoming concerts. They might see who sponsored the concert or spot themselves in the list of patrons or friends. After the event, they might even take the programme home, to come back to it later or to keep it as a souvenir to commemorate the evening. Concert programmes do tell a lot: about the music, contemporary culture and society, and – last but not least – the ensembles which produce them and in which contexts and practices they are embedded. Consequently, these booklets entail knowledge on the music but also materialise institutional histories and identities. This makes them a precious resource for music researchers of various backgrounds.

In this chapter, I venture into these scholarly understandings of concert programmes. I do so to prepare and introduce salient discussions about concert programmes that are relevant to my empirical analysis of the concert programmes of the LSO and the VPO in my empirical case study in Chapter 4. This goes hand in hand with asking how the theoretical framework of the archive, which I introduced in the previous chapter, can contribute to and deepen our understanding and study of concert programmes. Concert programmes can be understood as archives in themselves, as they incorporate various information in different forms and present societal and historical clues. They might therefore present unique potentialities for the innovation of classical music. Yet, to understand what these potentialities are and where innovation might be possible, it is necessary to understand the distinct ways in which concert programmes help to actualise classical music and its tradition, and what it concretely *is* that they actualise. As I hope to demonstrate by the end of this chapter, the archive theory can stimulate a new or complementary methodological approach to concert programmes in music scholarship. This has implications for how I study concert programmes in the empirical case study that follows.

But what are concert programmes, and how have they emerged and developed? While some authors have proposed that concert programmes date back as far as to the eighteenth century (Blom, Bennett, & Stevenson, 2016), music historian Christina Bashford (2019) concretely locates their emergence in mid-nineteenth-century London. Early concert programmes consisted of little more than single-sheet handouts listing the works that were performed that night; it was in the Victorian era that more extensive prose programme notes on the musical works – often referred to as 'annotated' in the scholarly literature – emerged as a uniquely British phenomenon (Bashford, 2019: 199).[21] These gradually came to incorporate explanatory material such as descriptions of musical works, illustrations, and excerpts of notations (Bashford, 2003, 2007/2016; Ridgewell, 2003). In the last two decades of the nineteenth century, annotated programme notes for instrumental music became a national as well as an international standard – for example, in Germany, Austria, France, and the US (Bashford, 2019: 199; see also Thorau, 2019).[22] As researcher and curator for printed music Rupert Ridgewell (2003) from the British Library explains, in the twentieth and twenty-first centuries, concert programmes have come to include even more material, such as performer biographies, product advertisements, and promotions for concerts. Orchestras have long recognised concert programmes as a marketing tool to attract a wider public as well as external sponsorship – a reaction also to the increasingly precarious funding environments in many cultural sectors in Europe and North America (Ridgewell, 2003, 2010). Yet, as I will demonstrate in Chapter 4, these ensembles do not merely use concert programmes as a marketing tool; rather, these booklets help orchestras shape and safeguard their institutional histories and identity.

The development of concert programmes went hand in hand with changes in musical life and the social function of the Western classical music concert, as Ridgewell further describes (2003: 1). After 1800, when concerts became accessible to wider parts of society, the classical concert acquired a didactic dimension. The emergence of the work-concept played a fundamental role in this process, helping – as I have shown in Chapter 2 – the gradual establishment and repeatability of musical works in repertoires and canons (Goehr, 1992/2007). As musical performances migrated from the private salon to the public concert hall, a broader audience became interested in 'printed explanations and instructions' (Bebbington, 2004: 1). The reason for this was that the new instrumental repertoire posed challenges to this still

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21 Bashford (2019) and Thorau (2019) show that the first annotated programme notes were produced in London by concert manager John Ella under the umbrella of the Musical Union (MU, founded 1845) for its chamber music concerts. By establishing the notes as a common practice for the MU's concerts, they were subsequently adopted for other symphonic concerts, first in London, then in Manchester and Liverpool (Thorau, 2019: 211).

22 In the case of Germany, for example, concert programmes found their way to the audience with the operas of Richard Wagner (Thorau, 2019). It was German musicologist Hermann Kretzschmar who, from 1878 onwards, wrote articles about the musical works in concert for the Rostock daily newspaper. These very much resembled programme notes today. The texts were collected and published in Kretzschmar's book *Führer durch den Konzertsaal* (1887/2016), 'a collection of articles on individual pieces in historical order, resembling a handbook of the history of instrumental music, starting with pieces by the Gabrielis and extending, in its third edition (1898) to Bruckner and Mahler' (Thorau, 2019: 212). The book was revised and updated until 1930.

'inexperienced' public: instrumental works with lengthy movements resulted in concertgoers becoming inattentive and distracted during the performance (Bashford, 2003). Following the idea that this music required intellectual engagement to be enjoyed and appreciated, concert programmes presented a fitting solution to this problem. They helped to foster and establish attentive and silent listening in the concert hall. This practice of listening focused on understanding the structure or progression of the music introduced by the idealist aesthetics of the work-concept (Bashford, 2003: 132; see also Johnson, 1995).

Another key development in the history of concert programmes concerned the debate on the relationship between 'programme music' and 'absolute music' in the nineteenth century. While programme music refers to the incorporation of 'extramusical' content such as narratives or real-world references, absolute music stands for 'pure' music composed with the intent to be appreciated as such and without the need for any 'outside' reference (Bonds, 1997, 2006, 2014). While programme music or programmatic elements appear as early as in Renaissance music of the fifteenth and sixteenth centuries, programmatic elements (re-) flourished in instrumental music in the nineteenth century by the music of composers such as Richard Wagner, Franz Liszt, and Hector Berlioz. The enmeshment of programmatic elements with otherwise absolute music – for example, by taking on longer narratives and responding to sociopolitical and national contexts – led to a heated debate about the direction this music should take among composers and music critics like Eduard Hanslick (Bonds, 2006). The reintroduction of programmatic elements in instrumental art music created an additional need for comprehensive, in-depth explanations for the listeners, generating further demand for extensive concert programmes. They became a key tool to explain to the listeners the relationships between the formal structures of the music and its programmatic contents or references (Rushton, 2001: 153). This way, concert programmes came to occupy both a crucial educational and aesthetic function for practically all forms of this instrumental art music, from symphonies and concertos to chamber music pieces (Bashford, 2003; Ridgewell, 2003).[23] In her research on the concert programmes of the Berlin Philharmonic Orchestra and the Munich Philharmonic Orchestra, Christiane Tewinkel (2016) illustrates how concert programmes – which she conceives as *Bildungsinstrumente* – therefore manifest, maintain, and circulate musical works and classical music traditions.[24] She suggests treating concert programmes as 'epistemological agents' that manage musical knowledge (2016: 10–13).[25]

Despite the considerable development of concert programmes, Ridgewell (2003) finds that for a few decades

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23 See, however, Bashford (2019): 'Indeed, underneath the uptake of program notes there may have been shared cross-national concerns about educating listeners, old as well as new. In truth, though, the conditions surrounding the advent of such foreign traditions need exploring and explaining […] before we can adequately correlate them with British ones and establish any national idiosyncrasies in program-note style' (pp. 199–200).

24 I refrain from using an English translation, as the term *Bildung* encompasses a complex philosophical framework of informal as well as formal education, which emerged in eighteenth-century Germany. A *Bildungsinstrument* is a tool through which *Bildung* is supposed to be stimulated and fostered.

25 The original term that Tewinkel uses here is 'Agenten des Wissens' (2016: 13).

> the defining elements of the programme have not changed: it remains by nature an ephemeral item, defined by its association with a specific event in time, and its key function is to guide an audience through a concert by listing the music being performed. (p. 2)

The core function of concert programmes has remained seemingly stable: guiding the listeners through the music that they are hearing by means of explanation and description. As musicologist Christian Thorau (2020) illustrates, this function recently seeped into the introduction of digital real-time listening guides for portable devices like smartphones – for example, in the form of apps like Wolfgang, EnCue, or the BBC Philharmonic's Notes, which was produced in-house.[26] While these digital or online tools are not part of my research, together with the rise of digital and digitised concert programmes – sped up radically by the Covid-19 pandemic – they may change the future role of paper-based concert programmes in classical music culture. Today, however, these booklets are very much alive and have become more diverse in their contents and appearances across orchestras and ensembles. I propose that these differences matter for what we can learn about the music and the ensembles, how both are related to each other, and how this relationship shapes how the music and its traditions exist over time in and through these artefacts.

In what follows, I will first address the largely implicit but underlying distinction between 'programme notes' and 'concert programmes' in the scholarly research. As I will show, this often unclear separation is one important aspect in which the theoretical framework is helpful. I will then distinctively map the academic literature on programme notes (focusing on text, including content, reception, and writing styles) and on programmes (focusing on the artefact, including its materiality and ephemerality in studies on concert history). Both of these dimensions are needed to understand how concert programmes actualise classical music over time, and how these artefacts engage in processes of conservation and change. I end this chapter by reflecting on how the theoretical framework might inspire a reconciliation and interweaving of these two dimensions. In doing so, I propose to view concert programmes as agents whose sociomateriality is key to the actualisation of classical music. This, then, helps me argue for the importance of studying how these artefacts are produced within orchestras and related institutions.

3.2 Programme notes or concert programmes?

Concert programmes are a long-established part of Western concert and orchestral life, yet scholars have commonly argued that academic research into them is sparse (Bashford,

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26 These apps display information about the music on smartphones in real time, meaning as the music plays – like subtitles in a cinema. Notably, these apps challenge the aesthetic rituals of the classical concert, as concertgoers take out their phones and look at the lighted screen during the performance. This has led some orchestras, such as the BBC Philharmonic or the LSO, to limit their use to certain areas in the concert hall or even to special events (Dinsdale, interview, 2020).

2019; Blom, Bennett & Stevenson, 2020; Ridgewell, 2010; Tewinkel, 2016). In the available literature, one aspect, however, continues to stand out. This aspect is relevant to how the theoretical framework of the archive might be useful to the study of concert programmes. It rests in the fact that the scholarly literature makes a consistent but implicit distinction between the programme notes and the broader concert programmes. This distinction is not only semantic; it shapes how concert programmes have been researched and what we know about them – and the music – today.

Programme notes are texts on the musical works, usually containing a description or explanation of the works performed in a concert. Programme notes provide audiences with signposts for listening, sometimes including even more detailed music theoretical analyses. These are often complemented by closely related background information on a work's creation or reception over time. Nowadays, however, programme notes are only one element in a much more expansive booklet. Concert programmes entail additional components which are less clearly defined and vary considerably across ensembles, and thus are rarely subject to systematic analysis like the notes. This concerns, for example, artist biographies, composer profiles, news sections about the ensemble and its activities, additional informational articles and special features (such as items on the history of specific instruments or other, related organisations), photos and illustrations, as well as a good chunk of advertisement and product promotions (Ridgewell, 2003; Tewinkel, 2016).

The separation between programme notes and other contents in concert programmes has guided researchers sometimes more, sometimes less consciously, yet it has remained overall unproblematised in this academic community.[27] One explanation for this might be that, for scholars investigating mid- to late nineteenth-century concert programmes, there is little more to be found than the notes. Although concert programmes have become much more multifaceted, this development has not changed the fact that much of the scholarly research still either focuses on the notes or treats these notes as a given, isolated object of study that can be easily detached from other contents in the larger programme. Crucially, this situation hinges on the regulative role that the work-concept plays in musical practice, which has enabled and enforced the creation of an isolated 'space' dedicated to the musical work in the concert programme.

This has led to an epistemological blind spot. Programme notes do not exist in a vacuum but can only be properly understood in relation to other elements in the programmes. Artist or composer biographies, for example, often contain additional information on the musical works or repertoires in question; at the same time, programme notes might give valuable insight into a composer's life, or even institutional histories. Thus, musical infor-

27   In contrast, this distinction was prominent in the practical communications about my empirical case study. In the case of the LSO, I noticed that my interviewees commonly made use of the distinction between the programme 'notes' and 'concert programmes' in their explanations, regularly asking me to specify what I was inquiring about. In anglophone countries, the separation between 'programme notes' and 'programmes' seemed to be deeply embedded in the language use. This is perpetuated and enforced in practice, for example, by clear divisions of labour in these organisational settings. In my interviews with the VPO staff, the terms *Programm* or *Programmheft* were regularly used in a general sense of the term, often implying the incorporation of the programme notes (referred to as *Werknotizen* or *Werktexte*).

mation is distributed across the various elements in the concert programmes – including not only text but also photos or illustrations. This is why it is important to view these booklets from a more encompassing perspective. Broadening the scope from the notes to concert programmes as broader artefacts is key for examining how they perform, conserve, and change classical music over time – and hence contribute to the music's ongoing existence.

In developing this perspective, the theoretical framework of the archive might be fruitful. Yet, to understand what an archival perspective can contribute theoretically and methodologically, it is first necessary to demonstrate exactly how the programme notes and the programmes have been taken up in the academic literature. Programme notes have been primarily investigated by researchers working in musicology, music psychology, and higher music education. This literature revolves around the notes' content, their impact on listening experience and behaviour, and ways to write them in higher education. These studies examine the circumstances under which and consequences of how a musical work is described in written form, which might sometimes be more and sometimes be less theoretical. The phenomenon of programme notes has also invited music philosophical explorations about the (im)possibilities of writing about music as such (see, for example, Jankélévitch, 2003; Meyer, 1973). Concert programmes' other contents, in contrast, have often been scrutinised from a specifically music-historical perspective. Such scholarship focuses on how programmes are an informative source for the history of (notably nineteenth-century) concert life, for past listening habits, or for shifts in the character of programmes themselves. As a consequence, this historical research has led to a heightened interest in how these artefacts relate to materiality and ephemerality in archival and library studies. This is demonstrated, for example, by the rise of research projects dedicated to exploring the role of concert programmes in music research, particularly in the UK (Bashford, 2008; Ridgewell, 2003, 2005, 2010).

In the sections below, I will flesh out the relevant literature on programme notes and concert programmes in more detail. Although the conceptual distinction between programmes and programme notes seems to be straightforward – and is, to some extent, justified and handy – its boundaries become blurry when examined in terms of practice.

3.3 Programme notes: Content, reception, and writing styles

Studies on programme notes primarily engage with the content and reception of texts on musical works (Bennett & Blom, 2014; Bennett & Ginsborg, 2018; Harries, 2017; Margulis, 2010). Diana Blom, Dawn Bennett, and Ian Stevenson (2016) identify five key functions of programme notes: guiding the listener, creating an ideal listener, shaping the performer's interpretation, inspiring the listener to become involved with the music, and creating a tool for collaboration between composer, performer, and listener. Various scholars locate programme notes' main purpose in guiding concertgoers through the musical work in order

to enhance their experience and enjoyment by increasing the understanding of the music (Harries, 2017; Ridgewell, 2003; Scaife, 2001; Thorau, 2020; Wingell, 2009). The authors further pinpoint three main types of information that can be found in programme notes: (1) contextual information on the background of a work, such as the context of its creation or the personal life of a composer; (2) descriptive and metaphorical information that describe the feeling or mood of a musical work; and (3) analytical information, such as on the structure or instrumentation of a piece (Blom, Bennett, & Stevenson, 2020, section 'Program note content').[28] Both the key functions as well as the kinds of information incorporated by the notes are the result of nineteenth-century aesthetic ideals, such as the intellectual engagement with music as a primary means to appreciate and experience it. What information is deemed relevant to include thus depends on how programme notes and their traditions solidify the notion of the musical work and its role in the practice.

Timothy Harries (2017) suggests, however, that a listener's background affects the kind, amount, and density of the information preferred. For example, musicians cherish other types of content than non-musicians, and even within these groups of audiences, preferences may vary considerably. In fact, some scholars contest the usefulness of exuberant, descriptive, and analytical programme notes for regular concert audiences altogether (Scaife, 2001; Wingell, 2009). One reason for this criticism is the increasing tension between ideals of listening that assume the need for intellectual engagement with music and questions about whether audiences have sufficient prior knowledge or an interest in acquiring such knowledge. Late eighteenth- and early nineteenth-century audiences appreciated detailed analytical information; some degree of musical education was the norm rather than the exception. Nowadays, however, the audience's educational interest and musical pre-knowledge present a question for programme note authors as well as the institutions who provide the programmes. There seems to be general agreement between them for the notes to not include 'too much structural information' (Bashford, 2003: 131). Instead, contemporary programme notes usually aspire to achieve a balance between analytical and contextual information in order to foster the notes' accessibility to a 'broad' audience (Scaife, 2001).

This shift has prompted studies on the relationship between programme notes and ways of listening or reception. Thorau (2019), for instance, compares programmes to tourist guides that highlight events in the music, inviting 'touristic listening'. Notably, this leads to what he calls 'synecdochical canonisation', the process in which programme notes single out specific movements, melodies, and themes that then come to stand for the musical works (Thorau, 2019: 221; see also Thorau, 2020). One famous example of this is the beginning of the first movement of Beethoven's *Symphony No. 5* – the famous *ta-ta-ta-taaaa* – an opening regularly discussed and analysed in programme notes of this piece. The creation

28   Although this rough distinction is the result of a study on composer's programme notes for newly written classical music, it relates intimately to the findings and insights of my empirical case study. As I will show in Chapter 4, the authors' types of information are clearly recognisable also in the writing of notes for older classical music works.

of 'musical sights' is thus vital to processes of canonisation and conservation of musical works, as it enables listeners to 'use the "imaginary museum of musical works"' (2019: 216; cf. Goehr, 1992/2007). Even the designations of musical works in programme notes through titles, keys, opus numbers, and movements are important to consider, as Anselma Lanzendörfer (2017, 2019) shows. She argues that through such labelling, concert programmes have played a crucial role in specifying musical works as end products because this has fostered the individualisation of the works (2019: 164).[29] Lanzendörfer concludes that it is often forgotten that designations of musical works are vital to realising and upholding nineteenth-century aesthetic ideals and traditions today (2019: 171–172).

Looking at programme notes' reception, however, Elizabeth Hellmuth Margulis (2010) observes that concertgoers do not enjoy the music better when they have read the respective programme note in advance, calling into question long-held assumptions about what programme notes can actually do *for* or *to* a listener's experience of the music. Notably, a few such studies on reception take new or contemporary classical music as their point of departure, rather than canonical classical music (Bennett & Blom, 2014; Bennett & Ginsborg, 2018; Blom, Bennett, & Stevenson, 2016). They claim that

> for familiar repertoire in the Western art music canon, listeners often know some of this information before the performance; however, for newly composed or rarely performed works the program note may contain essential information that informs and guides the listening experience. (Bennett & Ginsborg, 2018: 588)

This quote suggests that canonical works of classical music require less – or different types of – explanation. Here, programme notes are a vital tool to provide access to new classical music pieces, their context and composition, as such information may not be easily available elsewhere (Bennett & Blom, 2014; Blom, Bennett & Stevenson, 2016; Scaife, 2001).[30]

The reception of these booklets by the listeners – and what they are meant to receive of the music – is thus closely connected to processes of canonisation, both in the case of older and contemporary classical music works. Also the creation, manifestation, and dissemination of (musical) knowledge plays an important role in this. Thorau distinguishes between four – admittedly blurry – types of music-related knowledge and forms of knowledge-making in programme notes: work-focused knowledge (establishing a work-centred approach); framing knowledge (such as delivering contextual information with a communicative character); guiding knowledge (step-by-step descriptions following the linear

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29 This is linked to practices of categorising and cataloguing, an important action of canonisation from the nineteenth century onwards (see, for example, the *Köchelverzeichnis* for compositions by Wolfgang Amadeus Mozart or the *Deutsch-Verzeichnis* for works by Franz Schubert published in the nineteenth century).

30 Tewinkel supports this claim. In her historical study on classical music concert programmes, she has found that premiered pieces and debut performances received more detailed commentary than other, already known pieces (2016: 88).

progression of the work); and canonising knowledge (when programmes select, classify, and evaluate music) (2019: 218–219). Tewinkel (2016) finds links between music or musical works and specific bodies of knowledge, such as particular histories. The historical importance of the text of a musical work has benefitted by coupling with written musicological insights, perpetuated by an ongoing education of the middle classes in the eighteenth and nineteenth centuries by figures such as Hermann Kretzschmar or George Grove (Tewinkel, 2016: 39–41). The close relationship between the discipline of musicology and the history of concert programmes is also an interesting phenomenon for music researchers: through the notes, they can study the generation and dissemination of musical knowledge by, for example, tracing shifts and renewals in this knowledge (Tewinkel, 2016: 40).

How this musical knowledge is presented – namely, primarily in text form – seems to be a well-established and conventionalised process. Lara Pellegrinelli (2019) criticises the ways in which programme note writing for new classical music reinforces conventions 'from the ways in which our dominant cultural institutions frame the classical canon – privileging historical research, stylistic formality, and narrative authority under the guise of objectivity'. The old continues to pervade the new, not only when it comes to the notes' functions or the kinds of information included but also in the ways in which these texts are written. It also concerns who is authoring them: experts such as musicologists, music critics, or music historians. Although the writing plays a vital role in how music and its understandings are shaped, Blom, Bennett, and Stevenson (2020) suggest that programme note writers – and, for that matter, instructors – 'largely fail to communicate that program notes are far from neutral documents' (section 'Discussion and Conclusion'). Authors have their own motivations and backgrounds, which shape what can be found in the note and how it is written. Thorau elaborates that concert programmes are affirmative and promotional in tone, pushing canonising imperatives with the help of moral or normative claims of what *ought* to be heard, rather than what *may* be heard (2019: 221). He notes that these texts are highly selective in what knowledge is described and emphasised (Thorau, 2019: 220; see also Thorau, 2013).[31] As a result, programme notes can be seen as platforms on which musical authority is exercised and established by the means of musical expertise, reinforcing the role of scientific fields such as musicology. Connected to this, Tewinkel recognises a rift between musicological writing and the musical practice it seeks to describe (2016: 37).

The focus on expertise as a tool to establish authority and musical legitimacy has enabled programme notes to become means for assessing music students. Nigel Scaife (2001), for example, informs his class that having them write programme notes 'allows examiners to assess how well you understand the musical and historical context of the repertoire you are performing' (p. 3). One consequence of using programme notes as a form of examination, however, might be the uncritical reproduction of particular bodies of knowledge. The

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31   In addition, the inclusion of musical works in a given concert programme already demonstrates which pieces are considered 'worthwhile' music: both Bashford (2003, 2019) and Thorau (2019) note that not every musical piece performed was or is guaranteed its own programme note.

programme note writer Leonard Burkat (1985) vividly recalls: 'A childhood friend […] said of my choice of career: "Program notes! I always thought succeeding generations had just cribbed them from predecessors for as long as there had been something like a standard repertory"' (p. 21). Although meant as a humorous comment, Burkat agrees with how easily programme notes reproduce 'told tales', to a point where they get 'repeated so often that when you try to contradict them with fact you are told that you are wrong' (Ibid.).

Other programme note instructors focus on length and structure of programme notes to highlight the situatedness of the notes within the concert event (Bebbington, 2004; Holoman, 2014; Irvine & Radice, 1999). These authors are concerned with the potential tension resulting from the audiences' simultaneous engagement in reading and listening. Already in 1924, music critic Michel Calvocoressi commented on the diametral direction that programme notes enable: they aim to evoke interest in and attention for the music, but make listeners read in concert (p. 20).[32] Strikingly, there is a fundamental unclarity regarding *when* audiences actually engage (or want to engage) with the programme notes – before, during, or after a performance (Blom, Bennett, & Stevenson, 2016). This is a concern for the academic literature, but the question of 'when' to read seems equally valid – as I will show in Chapter 4 – for the orchestras that produce the notes.

What is certain is that there is a status quo when it comes to the functions of programme notes, their content, and writing styles. As Blom, Bennett, and Stevenson (2020) argue, the programme note is not merely 'a benign piece of writing, but documentation or narrative of a musical work and the life from which it came' (section 'Discussion and Conclusion'). Although the concert audience and their reception are vital to conceive of the functions and forms of the notes, these texts are not merely innocent how-to-listen guides. Rather, they are texts that generate and manifest specific approaches to and transmissions of musical understandings and knowledge. These are fundamentally connected to the concept of the musical work, making it important to examine programme notes from a perspective of canonisation and conservation.

3.4 Concert programmes: Concert life, richness, and ephemerality

In contrast to studies on programme notes – which are texts about musical works – scholarship on programmes tends to be more historical by situating these artefacts in the wider history of concerts and (national) musical life (see, for example, Cowgill & Holman, 2007/2016; Thorau & Ziemer, 2019). As Ridgewell (2003) shows, these objects are particularly insightful when it comes to studying British concert life in the nineteenth century (p. 5; see for example Bowie, 2016; Ehrlich, 1995; McVeigh, 1993; Musgrave, 2003; Weber, 2000). Here, the pro-

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32   Again, outlooks such as that of Calvocoressi (1924) draw heavily from nineteenth-century ideals of listening as an attentive, solitary, and intellectually engaged practice of how a musical work should be attended to (Tewinkel, 2019: 478; see also Goehr, 1992/2007).

grammes give invaluable historical clues about the emergence of the networks between actors and institutions that shape musical life. They additionally enable historians to trace shifts in musical canons and repertoires and subsequently, as Anselma Lanzendörfer (2019) elaborates in her study on programmes of the Leipzig Gewandhaus, the history of listening (p. 177).

What makes concert programmes so fascinating for historians is that they contain much more than only the programme notes. The advertisements and product promotions they include give clues about developments in sound technologies; personnel lists can reveal networks of interrelated actors and patrons; performer biographies portray soloists' careers and travels; sponsorships give insight into funding schemes and cultural policy; and announcements give hints about the structure and duration of concerts in various periods and countries (Fuld, 1981: 528). Consequently, Bashford argues, concert programmes are 'cultural objects' (2003: 115). Their imagery reflects and intervenes in particular cultures. Jann Pasler (1993) has, for instance, convincingly illustrated how visual elements such as covers, images, illustrations, typefaces, and designs in late nineteenth- and early twentieth-century Parisian programmes contributed to the acceptance of modernism in French (musical) culture. As Stephen Jay Gould (1995) notes, knowledge is not merely represented in textual form:

> I am particularly intrigued by the subject of 'canonical icons', i.e., the standard imagery attached to key concepts of our social and intellectual lives. Nothing is more unconscious, and therefore more influential through its subliminal effect, than a standard and widely used picture of a subject that could, in theory, be rendered visually in a hundred different ways, some with strikingly different philosophical implications. (p. 41)

For example, an iconic image of a composer – like Beethoven or Schubert – next to a composer biography may reinforce the canonisation of these composers' musical work. The significance of imagery in transmitting musical knowledge and aesthetic values is another argument for why it is crucial to look not only at the notes but at the programme as a situated entity or artefact.

Concert programmes are thus rich in their contents, rooted in the fact that, as Barbara Wiermann (2009) explains, concert programmes can be considered 'everyday materials'.[33] She further describes:

> since everyday materials were generally not considered worth storing at the time they were created, they exist now primarily incomplete and scattered. It requires a special collection zeal to gather the documents in some manner of completeness. (p. 1)

While their 'everydayness' makes concert programmes particularly attractive objects of study, Wiermann points out that this everydayness poses challenges for scholars interested in music, concert, or listening histories. This insight is shared by Bashford (2008):

33   The original term Wiermann uses is 'Alltagsmaterialien' (2009: 1).

> As someone who has spent many years researching concert history, I have a love-hate relationship with its ephemera. On the one hand it is a source of almost unimaginable richness, providing the sort of telling detail that draw one's interest and opens up avenues for exploration. [...] On the other hand, concert ephemera presents the researcher with real – and interlinked – difficulties of research methodology and historical interpretation [...]. (p. 461)

The problems Wiermann (2009) and Bashford (2008) refer to are the incompleteness of archives, the scattering of concert programmes across different institutions, the difficulties with access, and issues of interpretation concerning early programmes. These programmes often had a meagre number of pages, incorporating little detail. With the rise of concert history as a growing field of research in the UK, studies like Bashford's (2003, 2007/2016, 2008, 2019) or Catherine Dale's (2003) began to illustrate the importance of examining concert programmes in terms of their 'material status'.[34] Tewinkel (2016) suggests that one reason for the reticence towards research on concert programmes lies in this status, which she describes in terms of 'the unmanageability of the source material' that is caused by 'the status of the booklet as a text in use' and its 'ephemeral nature' (p. 20).[35]

As the quotes above illustrate, this material status has been labelled 'ephemeral'. Librarian Jasmine Darlington-Rielly (2019) explains that 'current definitions [of ephemerality] are varied and [...] there is still confusion' (p. 201). The unclarity of what ephemerality means also raises questions over the kinds of objects that can be considered ephemeral. Pointing back to Wiermann's (2009) term of 'everyday materials', ephemeral objects – or ephemera – are everyday items produced for short-term use, to be discarded soon after (Young, 2003). Thus, ephemera are considered fleeting, disappearing objects. Darlington-Rielly (2019) points out that descriptions of ephemerality often centre on the physicality of the object, ignoring, for example, digital ephemera (p. 195). Ephemerality is almost synonymous with loss, disappearance, and inaccessibility. In the case of music, other examples include 'handbills, posters, tickets, newspaper advertisements and reviews, administrative records, contracts with performers, and so on' (Bashford, 2008: 459).

The ephemeral status of concert programmes has inspired historians, archivists, librarians, and music curators to examine the role of these artefacts in practices of collecting, processing, archiving, storing, and preserving (Fuld, 1981). Darlington-Rielly (2019) underlines how concert programmes challenge processes of acquisition and access, retention, cataloguing and classification, and digitisation. She traces the emergence of a body

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34 Due to the early emergence and adoption of concert programmes in the UK, researchers interested in British concert histories are lucky to draw from comparably vast archives and collections of concert programmes. This is also one explanation for the growing number of studies and research projects on British nineteenth-century concert life. As Bashford (2003) emphasises, most accounts within these studies focus on concert histories centred in and around London, as this was the UK's cultural hub for music in the nineteenth century (pp. 116–117).

35 Tewinkel's book *Muss ich das Programmheft lesen? Zur populärwissenschaftlichen Darstellung von Musik seit 1945* (2016) has not been translated into English; all translations of this book are thus my own.

of scholarly literature within library and archive studies which tries to comprehend and position art and music ephemera within their respective practices (see, for example, Fuld, 1981; Lee, 2006, 2008; Lloyd, 2003; Twyman, 2000; Wiermann, 2009). In this body of literature, ephemerality constitutes a primary concern because it poses major conceptual as well as methodological challenges. From a conceptual perspective, it is often difficult to interpret these objects and judge their cultural significance due to a lack of context; from a practical perspective, it becomes difficult for professionals to decide what to keep, how, and for how long. Rosa Reitsamer (2018) asserts that such choices build on interpretations and assumptions of what is worth keeping and why (p. 31). The ephemerality of concert programmes is thus closely connected to the kinds of 'everyday' contents that these documents embody.

Yet the idea that programmes are merely ephemeral is also contested. In her 2007 study on programme provision and circulation in nineteenth-century England, Bashford shows how programmes acquired permanence by being reprinted, reused, and borrowed across institutions and cities, arguing that 'in spite of their relatively low cost, their status was by no means ephemeral' (2007: 352). Such practices also helped the formation, circulation, and manifestation of musical understandings and knowledges. What programmes looked like demonstrated how these objects were meant to persist: 'Many of the concerts mentioned […] issued their seasons' programmes with a continuous pagination and even with running heads, implying that they would be collected, kept and bound for future reference […] by regular concert-goers' (Bashford, 2003: 131). In the home, concert programmes proved crucial objects for helping listeners attain familiarity with new repertoire and form musical memory (2003: 131). Musical works were not played as often as today – chances to see or hear a work by Beethoven in concert were rare – so concert programmes presented an important tool to form and establish musical memory. After all, sound technologies such as the gramophone were not available yet.[36] Also, Thorau (2019) now observes a 'souvenir practice' in which these artefacts are collected by concertgoers to commemorate their personal and affective experiences of a concert.

The tension between ephemerality and permanence of concert programmes is also visible in orchestral practice, as I will demonstrate in my empirical case study. At first sight, the ephemerality of programmes presents orchestras with problems: collecting, archiving, storing, and preserving these documents – which are produced for a specific event in time – can be impossible for these organisations, especially for smaller ensembles that cannot afford to employ a professional archivist (Wiermann, 2009). The systematic archiving of concert programmes is the exception rather than the norm; even in institutions or orchestras that do have sufficient resources at hand, the quality of the collection is dependent on the endeavours of one or two individuals, who are often employed for decades.

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36 Next to concert programmes, piano transcriptions of orchestral works (for two and four hands) were a popular means to engage with the music in the home. These transcriptions were widely circulated in European households in the nineteenth century and helped place orchestral music in a domestic and embodied context, further familiarising listeners with the new musical works. This practice largely vanished after the emergence of the gramophone, which did not require any musical education or knowledge to play musical works (Miller-Kay, 2018).

In this chapter's last section, I will discuss how insights from the literature – both in terms of the programme notes and programmes – can be fruitfully brought together under the theoretical umbrella of the 'archive'. This framework can help me approach concert programmes from a new perspective, and shift focus to why it is important to study how orchestras make and produce concert programmes.

3.5 Actualising music through the concert programmes' sociomateriality

In the beginning of this chapter, I asked how the theoretical framework of the archive might be useful to the question of how classical music is actualised in and through concert programmes. With the help of existing literature, I have suggested that the separation between programme notes as text and programmes as ephemeral objects is problematic when wanting to answer this question. Importantly, both bodies of literature are necessary for understanding how concert programmes reflect and intervene in culture.

The answer to how the theory of the archive might help form a better understanding of the role of concert programmes in the transmission of classical music is twofold. First, it can deepen our understanding of *what* is actualised. Research on programme notes has demonstrated the (obvious) focus on the music and musical works. Yet it becomes clear that concert programmes matter for other practices, actors, or institutions, too – thus raising the question of what else of this musical culture and tradition they help to actualise. This becomes visible, for example, through historical studies on concert programmes, which have broadened the scope from the notes to other issues such as musical life and networks or concert history. The theoretical framework stimulates a perspective on concert programmes as artefacts that may be understood as archives themselves. This view has conceptual and methodological consequences; it means that we need to take a more holistic approach to concert programmes as subjects of study. Consequently, studying concert programmes as archives allows us to ask *what else* concert programmes might do. This means to also explore the concert programmes' archival potentialities in practices of conservation and innovation, as well as the judgements made on these potentialities by the actors who craft them.

In the shift to viewing concert programmes as artefacts, the relationship between materiality and ephemerality emerges as an important issue. This issue is relevant because it responds to the second point in which the theoretical framework might be beneficial in analysing these artefacts: in understanding *how* concert programmes actualise classical music and its tradition. Thereby, the rich everydayness that underlies ephemerality is crucial to how concert programmes not only manifest and conserve but also change and transform. Material culture scholar Judy Attfield (2000) has highlighted

the transformative capacity of ephemerality: 'Ephemerality suggests more than a fleeting moment – it offers a condition resistant to closure and materialises uncertainty' (2000: 87). While posing many practical challenges to institutions and researchers, ephemerality might thus be understood as a quality that enables transformation and opens up new avenues; it might be seen as a source of the potentialities attached to the archive of concert programmes. The relationship between materiality and ephemerality – and how this relationship is conceptualised by the actors and organisations who actually make the programmes – thus might enable and constrain certain paths of action. This makes these documents particularly interesting to investigate the relationship between conservation and change in classical music.

From the literature, it has become clear that scholars have grappled with the extent to which these objects are ephemeral. To address this pragmatically, I suggest to examine concert programmes as sociomaterial agents in musical or orchestral practice. Concert programmes neither exist in an epistemological vacuum nor are they merely fleeting. They are produced by concrete institutions and actors, in concrete contexts and settings, for concrete and often multifaceted purposes – and they also often persist there. As documents, they might hence be seen as 'sociomaterial': they represent how the social and the material are entangled in everyday organisational life (Orlikowski, 2007). Hence, sociomateriality is an important factor in understanding the entanglement of epistemological and social processes. Materiality is often not examined explicitly enough; this becomes obvious, for example, in the continuing but implicit focus on programme notes as a self-contained, analytical subject of study. This results in a barrier when wanting to understand how concert programmes are involved in conserving classical music.

Connected to this, the canonisation and conservation of classical music are mostly treated in 'hindsight' in research on concert programmes. Although scholars like Tewinkel (2016) have demonstrated the importance of organisational settings and practices for how these artefacts are produced and what they do or are intended to do, most of the research – which is largely historical in character – traces these organisations, settings, and practices retrospectively. In doing so, they depend on limited, often fragmentary material. I argue that a proper understanding of these artefacts and their role in musical heritage can only be achieved through an empirical investigation into how concert programmes are produced, written, and strategised within musical institutions, particularly orchestras. Such an investigation is long overdue. It would venture deeply into how organisational settings, contexts, and practicalities affect how classical music is conserved and 'carried' through these institutions and to an audience – and how this might have changed in recent decades. For example, Tewinkel (2016) observes that a contestation of the idea of the musical work as 'closed' has recently become recognisable in programmes: concert programmes have started to make visible the role that performers, conductors, and ensembles play in the music's performance (p. 252). This, she argues, indicates a slow but

visible shift to musical practice, 'moving away from knowledge of works towards knowledge of performance (and the appearance of all kinds of actors)' (Ibid.).[37]

An empirical investigation into how orchestras produce concert programmes also gives insight into how, as Tewinkel asserts, these documents have become canonised and a tradition themselves – in terms of not only the contents they include but also how they function in organisational settings. Epistemological processes are, after all, embedded in current practice, in which existing stocks of knowledge often serve to generate new ones (Tewinkel, 2016: 26). One example for this is, as she mentions, that the often slow changes in knowledge happen not because 'knowledge of certain works remains "as it is"', but particularly because orchestras often employ only a few authors for decades' (p. 66).[38] This illustrates that processes of knowledge transmission are intimately tied to institutional practices and environments. These are shaped by factors such as funding, staffing, and material environments – aspects so far largely overlooked in concert programme scholarship.

In the following chapter, I aim to do exactly this: trace and present past and current practices revolving around the production of concert programmes, guided by the open question of what it is that these artefacts actualise or transmit – and conserve or change – and how so. I do this for two major European orchestras: the London Symphony Orchestra and the Vienna Philharmonic Orchestra.

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37 Cf. 'die Verlagerung der Aufmerksamkeit langsam aber sicher in Richtung Musikpraxis: die Abwendung von Werkwissen hin zu Aufführungswissen (und das Inerscheinungtreten von allerlei Akteuren)' (Tewinkel, 2016: 252). Tewinkel locates the reason for this shift in music scholarship's ongoing re-evaluation of the work-concept, influenced especially by discourses and debates in new music (2016: 208)

38 This is a finding of Tewinkel's research on the concert programmes of German orchestras, yet this statement is valid also for the two institutions at which I have conducted empirical research.

4

Always have, always will?
Tradition and musical identity in the concert programmes of the London Symphony Orchestra and the Vienna Philharmonic Orchestra

4.1 'That's what they do!'

> To be honest with you, there's only so much you can do with a programme, you know. You're telling about the concert, about the conductor, the artist, and the programme. That's what they do! As they always have done and always will do. (Rice, interview, 2020)

For a few weeks in July and August 2019, I lived every music historian's dream. I found myself systematically rummaging – in an office in the Barbican Centre in London as well as the music section of the Austrian National Library in Vienna – through decades of concert programmes of the London Symphony Orchestra (LSO) and the Vienna Philharmonic Orchestra (VPO). As I worked my way through large amounts of paper, I was struck by the extensive archives in which the concert programmes were at home and, even more so, by how these artefacts seemed to act as archives in themselves. As other scholars have observed, the concert programmes of the two orchestras incorporate rich cultural and societal clues. There were advertisements for new sound gadgets, demonstrating an evolution of the history of sound technology, as well as advertisements for records and releases of music labels and publishing companies; promotions for lifestyle and often luxury items such as jewellery and cars, hinting at the type of audience expected; imprints, sponsorship calls, and patron lists, alluding to the funding environments; and traces of networks and collaborations with other (musical) organisations or foundations. Last but not least, these objects presented an intriguing development of print and visual culture as well as musical iconography.

At first glance, it was obvious that these concert programmes not only transmitted musical knowledge through the notes on the music and musical works themselves, but that they were cultural objects par excellence, embodying changes in society as well as concert and orchestral life. Yet these changes stood in radical contrast with how stable – and similar, in the case of the two orchestras – some overarching structures and contents of the concert programmes remained over the researched period. In this regard, recent concert

programmes did not differ radically from much older ones. This concerned components such as the programme notes; the ways in which the programmes designated and labelled musical works; the inclusion of composer, conductor, and performer biographies; member and sponsorship listings; and the incorporation of news and history sections. The concert programmes also visibly perpetuated nineteenth-century musical aesthetic ideals like silent and attentive listening by, for example, giving brief instructions on concert etiquette (such as intermissions and rules about smoking or taking photos in the concert hall). Although some of the programme elements transformed, vanished, or reappeared, it seemed that for a while there was, as LSO archivist Libby Rice has formulated, indeed only so much the concert programmes could do, or at least, that they *did do*.

In this chapter, I empirically investigate the concert programmes of the LSO and VPO in order to understand how concert programmes – as sociomaterial artefacts situated in orchestral life and practice – actualise classical music. What exactly is it that these artefacts actualise or bring into existence, and how does this connect to understanding the concert programme as an archive in itself? In asking these questions, I also interrogate the role that ephemerality and sociomateriality play in the relationship between change and conservation that these artefacts perform or enact. In examining how the programmes enact this relationship, it is necessary to understand how orchestral practice gives form to these notions. This might also offer new insights into the concept of ephemerality, and the role of music ephemera in musical organisations and classical music traditions. This chapter therefore provides an analysis of the concert programmes of the LSO and the VPO in the period between 1950 and 2019. As proposed in Chapter 3, I examined these objects holistically, meaning that I acknowledged and took into account the programmes' various elements. From the visual design elements to the textual components, an encompassing analysis is necessary to understand where and how concert programmes bring classical music into existence. Through this analysis, I aim to show how musical knowledge and tradition intertwine with orchestral history and identity through and in the concert programmes of the two orchestras.

As argued in the previous chapter, I propose to analyse the concert programmes not as self-contained objects but as artefacts that are situated in organisational and institutional environments and practices. While music researchers (particularly historians) have shown an interest in these contexts – for example, when tracing national concert and listening histories – there is a remarkable lack of appreciation for and insight into how musical organisations conceive of and make these objects (Weber, 2000; Bashford, 2007/2016, 2008; Bowie, 2016; Lanzendörfer, 2019). However, these artefacts are commissioned, written, edited, designed, printed, disseminated, and stored in concrete organisational settings with certain strategies, aims, and motivations driving them. This means that my investigation is not one that focuses on how audiences use or receive concert programmes; rather, the audience is part of this research as an element that these ensembles consider in the making of these artefacts, that they have expectations about, and that they aim to relate to with help of the

programmes. In case of the LSO and the VPO, there are significant differences in the making of these artefacts. These result from their distinct institutional histories, settings, and practices; they affect what these objects contain, what they look like, and what they (are supposed to) do, both regarding the music as well as the ensembles themselves. This also means that concert programmes bring together the reproduction of well-established Romantic aesthetic ideals with the individual presentations of the orchestras. The ensembles develop and navigate their 'own' (musical) identities and traditions alongside these aesthetic ideals, probing what these aesthetics might allow and how they might be able to change.

While concert programmes are vibrant and buzzing 'places' where a lot of things happen and transform, they also manifest and conserve orchestral practices and conventions both in their content and through their making. This process of solidification is related to what the science and technology studies scholar Anique Hommels (2000, 2005a, 2005b) has called 'obduracy'. She describes obduracy as the resistance of an artefact or technology to change. Hommels investigates the phenomenon with the example of cities, whose urban infrastructures, once in place, become solidified and hard to transform or even modify (2005b: 323–324, 329). While obduracy roots in the materiality of structures – which is why it is important to look at how concert programmes 'materialise' orchestral practice – it also depends on 'the ways of thinking and interacting including values, professional conventions, views of the world, typical solutions, problem definitions, and so on – for specific groups of actors' (Hommels, 2005b: 334). Related to this but moving back to this case study, Edward Bhesania, former concert programme editor at the LSO and current Editorial Manager at the BBC Proms publications, describes the development of European concert programmes in the last decades in the following way:

> They're relatively consistent. So, is that because people like me have been doing the job for 15 years and can't think differently? […] We do try and do things differently; we do add things… But at some point, you could argue there should be a revolution rather than an evolution. And what would that look like and would it be useful? (Bhesania, interview, 2020)

Highlighting the consequences of processes such as standardisation and professionalisation, Bhesania describes how difficult it is to transform these artefacts from an organisational perspective. A reason for this is, as Spronck (2022) has articulated, that the symphony orchestra is 'an organisation that is characterised by its efficient and rigid ways of working towards aesthetically qualitative results' (p. 200). Building on the work by John Spitzer and Neal Zaslaw (2004), she uses the metaphor of the orchestra as a well-oiled machine, in which various components work together to create a product (p. 519).[39] Concert programmes are therefore embedded in well-established organisational practices while also

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39   The result that Spitzer and Zaslaw (2004) refer to is musical performance; I would argue that this is equally valid for other products that orchestras create today, such as concert programmes.

directing workflows, social interactions, and production processes. How does this organisational obduracy relate to these objects' supposed ephemerality?

Bhesania carefully points to the idea of a more radical change of these objects, implying that this might necessitate a rethinking of what an orchestra does. This change hinges on a complex interplay between long-upheld aesthetic ideals, everyday orchestra practices, and the conventions and standards surrounding these artefacts more generally. While making concert programmes can be described as a slowly evolving practice, orchestras increasingly recognise that these objects are part of the game – a game of establishing artistic relevance as a musical institution in a globalised cultural landscape, of surviving in difficult funding environments, and of engaging old and new audiences. Yet they are not merely marketing tools for these institutions to secure money. When asked how the history of the LSO related to its concert programmes, Libby Rice's answer bore no sign of hesitation: 'Well, they really are its [the LSO's] history' (interview, 2020). These histories matter a great deal to how these artefacts actualise classical music and demonstrate how this music – and our understanding thereof – is shaped by practices of orchestral identity-formation in these concert programmes throughout the years. By focusing on the concert programmes' concrete materialisations, this chapter illustrates how the LSO and the VPO build their identities by enacting particular tokens of tradition while renewing and transforming others. Based on this, I intend to show that continuity and change of and in these artefacts are not dichotomies, but mutually intertwined processes. Their relationship results from the interplay between the concert programmes' materiality and orchestral practice, history, and identity. This is why it is important to look at two ensembles comparatively: this renders visible how concert programmes enact classical music tradition differently in the two cases, and how this relates to how the two orchestras subvert and maintain long-standing conventions and traditions of these artefacts.

In what follows, I will offer a brief development of the programmes of both the LSO and the VPO between 1950 and 2019, in which I pay attention to continuities and changes in content as well as design while acknowledging broader conventions in structures and their consequences. What do these objects incorporate and how do they structure and present musical information? How does this change over time (or not)? Providing such an overview is important because the two orchestras' concert programmes and their developments differ significantly from each other, and it is vital to illustrate these differences before relating them to the actual production practices. I will then trace the production practices according to four main topics resulting from my analysis: the engagement of new and old audiences; the role of musical expertise; practices revolving around language and writing; and the subject of materiality, design, and imagery. I conclude this chapter with a reflection on the role that concert programmes play both in the changing and conservation of institutional tradition, history, and identity. Pointing back to Rice's quote at the beginning of this chapter, what is it that the concert programmes of the LSO and VPO do, what do they look like, and how have they evolved over time?

4.2 Slow and stable: An overview of the LSO's and the VPO's concert programmes

At first sight, the LSO's and VPO's concert programmes could not look more different. This section aims to give the reader an overview of these differences – and the similarities – between the two ensembles' concert programmes and their development over time, based on archival research. This is necessary before investigating the institutional practices and contexts of the making of these artefacts, as these can only be understood properly when knowing what these objects contain and how they have changed over time.

I have discerned four 'phases' in the evolution of the LSO's concert programmes between 1950 and 2019. In the first phase, between the seasons 1950/51 and 1980/81, the programmes have remained consistent in content and in form. Concert programmes from that time include programme notes, biographies of conductors and artists, a schedule of forthcoming concerts, relatively few advertisements, and lists of orchestra members, friends and patrons, and sponsorship information. Notably, it was in the early 1960s that conductor biographies as well as a news sections on activities of the orchestra (such as tours, festivals, awards, etc.) were included; in the mid-1960s, artist biographies began to appear. The programmes' simple design, small size, and short length – initially caused by a shortage of resources resulting from the Second World War (Rice, interview, 2020) – result in a visible focus on the programme notes, meaning the descriptions of musical works, which during that time make up the most substantial part of the booklets (see Figure 1).[40] These notes were textual, written-out analyses of the music that the orchestra performed in concert.

The sequence in which these elements appear is noteworthy. Until the mid-1980s, readers would encounter the conductor's biography first, followed by the artist biographies, before arriving at the programme notes and finally orchestral news. This sequence demonstrates the importance of the conductor and the artists as crucial elements and selling points of the concert. This is supported by the fact that the programmes always included a black-and-white portrait photo of the conductor, and often also of the artists.

More substantial changes occurred between the season of 1980/81 and 2000/01. While the above-mentioned elements stay in the concert programmes, the booklets become significantly longer. One reason for this is a radical increase in advertisement and product promotions.[41] With this boom in ads in the first and last pages of the programmes, biographies and programme notes move into the middle of the booklet and remain, lit-

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40 While it is intriguing that the programme notes are described as 'analytical' in this figure, this term has been dropped in the same season to make way for the more common label 'programme notes'.

41 A substantial amount of these advertisements revolves around music, music technologies, and other lifestyle products. Yet there is also a lot of promotion to support the arts by affiliated companies and organisations, already hinting at a growing intertwinement between private corporations and art funding in the UK.

erally, at its core. Yet during this time, the orchestra starts to move into the foreground.[42] There is significant change in how the LSO presents itself in the programme: from a brief news section reporting on activities such as tours or festivals to more visual timelines and even short articles about the LSO's history and future – the latter usually emphasises the LSO's relevance in the British classical music landscape (see Figure 2).

The growing focus on the orchestra takes hold also in other elements, such as the advertisements, which start to feature more records of the LSO or the conductors in concert. Moreover, lists of the personnel of the LSO begin to differentiate between musicians and other staff, starting to make visible the supporting role that other staff members play in the workings of the ensemble. Lists of the orchestra's sponsors, trustees, patrons, and friends expand alongside the provision of information on how to support the ensemble. The programmes show that the LSO, during these decades, grew as a business that had to navigate precarious funding environments, as, for example, researcher and curator for printed music Rupert Ridgewell from the British Library explains:

> There's been increased emphasis on building up groups of friends or patrons, as well as all sorts of different levels of membership and membership benefits. It's all about building up a core group of supporters and financiers. […] And that's partly because orchestras in the UK have to live without much public funding. (Ridgewell, interview, 2020)

The visibility of the orchestra's internal structures and workings increases from 2000/01 onwards, with concert programmes depicting how the orchestra ventured from a concert production machine to an organisation involved in educational and communal issues. A break in visual design around the same time reflects this, enabling the presentation of the LSO's 'sub-programmes': LSO Live, LSO Discovery, and LSO St Luke's.[43] From 2010/11 onwards, a short overview or summary of the orchestra, its programmes, and musicians moves to the first pages of the concert programmes (see Figure 3). In a tourist magnet such as London, and a cultural hub such as the Barbican Centre – where the LSO resides – such an overview appears to be a strategic tool to connect to the audience by introducing the orchestra and its activities.

The last phase has started only recently, with the establishment of a new corporate identity in the season of 2017/18 initiated by the engagement of conductor Sir Simon Rattle as artistic leader of the ensemble. Helped by a carefully curated visual design, the concert

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42 This is enhanced by the fact that the programmes, from the 1990s onwards, start to frequently comprise the notes and biographies for more than one concert. The concert programme of the opening concert of season 2018/19 includes the programme notes, orchestra member lists, conductor and artist biographies, and composer profiles for no less than three concerts. It amounts to a whopping eighty pages.

43 LSO Live is the LSO's own record label, which was founded in 1999. LSO Discovery is a programme that aims to 'offer inspiring musical experiences to people of all ages and backgrounds who have not necessarily had much contact with classical music and musicians' mainly through digital means; it also provides support and training for emerging musicians (About LSO Discovery, n.d.). LSO St Luke's is the orchestra's educational hub: here, different community and amateur groups regularly rehearse and perform together with the LSO (About LSO St Luke's, n.d.). St Luke's also provides space for LSO rehearsals and hosts various musical activities for people of all ages (Ibid.).

programmes become a vital means to establish the LSO as a brand. Part of this is both a 'compartmentalisation' and 'visualisation' of musical information – for example, through an increase of info boxes and colourful images. The act of separating and sorting musical information alongside categories such as programme notes, artist and musician biographies, and composer profiles demonstrates the permanence of traditional aesthetics, yet these elements also act as a 'scaffolding' around which the orchestra unfolds its own identity, often in connection with the music.[44] The renewal of the LSO's (visual) identity is paired with an emphasis on the orchestra's musical traditions, which are firmly placed in British classical music (including canonical symphonies, new commissions and premieres, and film music). In addition, the depiction of the LSO as an institution is now intimately tied to the artistic leadership of Sir Simon Rattle.

While the concert programmes of the LSO have expanded from providing information about the concert event and the music to enacting the orchestra and renewing its identity, the VPO's concert programmes have remained – in many aspects – much more stable and almost unchanging over time. As first violinist and chairman of the VPO, Daniel Froschauer, formulated in our interview: 'Everything in our orchestra is long-lasting, I would say. Everything' (interview, 2020).[45] As I will illustrate below, the booklets do, however, depart significantly from some elements that might be referred to as the 'status quo' and which the LSO's programme include.

The VPO concert programmes consist of two main parts. In addition to a cover, a front sheet, and an orchestra member list, the first half of the booklet includes solely the programme notes (see Figure 4). In contrast to the LSO's programmes, the notes are the first texts that the readers encounter; notably, they are also much longer than the ones in the LSO's programmes.

The second half of the programmes is particularly characteristic of the orchestra: the *Musikblätter*.[46] This part is a magazine which incorporates up to four essays, as well as the *Philharmonisches Tagebuch* – the philharmonic diary.[47] The essays are diverse in content: they might be histories or written portraits of composers and conductors in the concert, but they often revolve around musical life in Vienna and the role of the VPO in this culture – or how the ensemble brings this musical culture 'outside' of Vienna. Consequently, readers encounter detailed reports on tours, festivals and other special

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44   It is important to note that this rebranding also affected other printed materials issued by the LSO's Marketing Department, such as season guides and a magazine titled Living Music, the latter of which is available to the LSO Friends twice per year.

45   Original quote: 'Alles in unserem Orchester ist langfristig, würde ich sagen. Alles.'

46   *Blätter* roughly translates to 'sheets' or 'pages', but it also is an old-fashioned term for a magazine, brochure, or short journal. I will use the original term throughout the chapter because of the traditional connotation that this word has. The fact that this part has never been renamed is an indication of the role that tradition and longevity plays in the orchestra.

47   While the philharmonic diary has been a permanent part of the Musikblätter since 1955, even before its formal introduction, the programmes included information akin to what the philharmonic diary includes.

concerts of the orchestra, award ceremonies, portraits of Viennese musical personas, book discussions or excerpts from books, and texts based on the archival material of the VPO (such as correspondences between composers). Meanwhile, the philharmonic diary presents extensive 'news-like' information such as the introduction of new members of the orchestra, obituaries, retirement notices, committee meetings, votes and elections, short reviews of other concerts, or the announcement of honorary memberships.[48] It depicts the ensembles' internal happenings, daily life, and routines, which enables the programmes to record a rich and detailed history of the VPO and its developments. Over time, the philharmonic diary becomes increasingly extensive, resulting in this part of the programmes becoming noticeably longer.

The consistency of the twofold structure of the programme notes and *Musikblätter* over the researched period creates a division of information between the music or musical works and the orchestra. In fact, the boundaries of the two parts are blurry in practice: the programme notes frequently relate the musical works and their composers to the ensemble and its history; in turn, information in the *Musikblätter* – particularly the essays – often refer to the musical works and their creators. Canonisation happens in the relationship between music and the orchestra, including Viennese concert life and history, which appears across the programmes' different parts. In short, the orchestra and its history are canonised with help of the music. Particularly composers play an important role in the ensemble's tradition and self-conception, as Froschauer explains:

> What you can feel very strongly in our orchestra is… tradition. Our orchestra played with Richard Wagner in 1875. If you were a musician then, you played with Verdi in the opera, *Aida,* and with Richard Wagner excerpts from *Götterdämmerung*. Bruckner was always here. Brahms was always here. Johann Strauss was always here. These people were always with us. Tchaikovsky was there. Gustav Mahler was our opera director. […] Today, when we play a Mahler symphony, I feel that he has written this on our soul. It's our *espressivo*. […] And that shapes everything.[49] (Froschauer, interview, 2020)

The orchestra's self-fashioning intimately relates to its musical tradition and history. The concert programme manifests this history and communicates it to the audience, actively shaping and safeguarding it. This is also recognisable in the concert pro-

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48 As I have primarily analysed the programmes of season-opening concerts, the philharmonic diary tended to additionally include an overview of the orchestra's activities over the summer, such as the VPO's continuing participation in the Salzburger Festspiele.

49 Original quote: 'Was man eben sehr stark in unserem Orchester spürt ist… Tradition. Zum Beispiel, unser Orchester hat gespielt mit Richard Wagner, 1875. Wenn man da ein Musiker war, hat man in dem Jahr gespielt mit dem Verdi in der Oper, Aida, und mit dem Richard Wagner hier Auszüge aus der *Götterdämmerung*. Der Bruckner war ständig da. Der Brahms war ständig da. Der Johann Strauß war ständig da. Also, diese Leute waren immer bei uns. Der Tschaikowsky war da. Der Gustav Mahler war unser Operndirektor. […] Heute wenn wir eine Mahler Symphonie spielen, da spüre ich, das hat er uns auf die Seele geschrieben. Das ist unser Espressivo. […] Und das prägt alles.'

grammes' layout and design. The VPO's concert programmes remain largely unchanged over the researched decades, especially when compared with the LSO's booklets. Their clean and simple appearance (with only minor alterations over time) – marked by the incorporation of only a few images, limited use of colours, black serif fonts, and few advertisements – is an ongoing aesthetic (see Figure 5; for more information, see section 4.6). As such, the concert programmes are literal materialisations of tradition itself, generating permanency and continuity in content, structure, and design. The ensemble's tradition becomes a vital channel through which the music is understood. Compared to those of the LSO, the VPO's programmes are manifestations of the ensemble's identity, rather than explorations thereof.

It is not only the clear twofold structure and design that distinguishes the VPO's concert programmes from those of the LSO. The VPO's concert programmes generally do not include any biographies – be it of the composer, the conductor, or the artist(s).[50] While the absence of these elements is exceptional from the perspective of concert programme conventions, biographical information regularly (but not always) interweaves with the programme notes and the essays in the *Musikblätter*. Another important difference is that VPO has far fewer programmes than the LSO; that the concerts that the VPO organises are rare, with one subscription concert taking place each month.[51] Each concert programme is written and produced exclusively for these events; as I will demonstrate below, this results in the booklets tailoring to the events much more specifically than in case of the LSO.

The two latter points – the absence of biographies as well as the tailoring of programmes to the concert – result from the orchestras' expectations about their audiences. As I shift now from a more descriptive analysis of the two ensembles' concert programmes to their production practices, these audiences are the starting point to understand the reasons for as well as the consequences of these objects' contents, structures, and designs. The next section will provide detailed insight into the role that audiences play in the making and conception of these artefacts, and how assumptions about them lead to both manifestations as well as changes in the depiction of these institutions' traditions.

50 One exception I found is the concert programme of the opening of season 1980/81, which includes a brief biographical paragraph on the conductor and the artist. The concert programmes do, however, regularly incorporate portrait photos of conductors and artists.

51 Considering the seasonal break in the summer, the total number of subscription concerts per year amounts to ten or eleven concerts at the Musikverein (excluding other engagements and external concerts of which there are several, as well as tours and special concerts such as the famous Sommernachtskonzert at Schönbrunn). In comparison, the LSO frequently performs its own concerts more than once a week.

ANALYTICAL NOTES by SCOTT GODDARD

(Author's Copyright)

Overture, Le Carnaval Romain - - - - - *Berlioz*
(1803-1869)

This overture is based on material from Berlioz's opera " Benvenuto Cellini " taken mainly from the second act. The scene is Rome at carnival time. Cellini and the heroine Teresa Balducci are in the Piazza Collona, at that moment a seething mass of masked revellers. The two have arranged to meet and the music suggests that they do in fact find each other though only for a second before the crowd surges round them and they disappear.

Like its cousin, the " Benvenuto Cellini " overture, this later piece begins with an impetuous statement of the main business of the work, which is to depict the crowd on the Piazza. Quickly the key changes (a most effective dramatic touch, separating the lovers from the surrounding crowd) while a cor anglais starts on a long melody which becomes one of the chief features of the overture. The lovers, presumably, have met. And then gradually this quieter music is overcome, drowned in the noise of the crowd.

It is on those two aspects of the scene that this overture is built. The quick tune of the crowd's music that comes after the quieter episode of Cellini and Teresa, is in effect a caricature of the lovers' music. Whether this is meant to suggest the carnival crowd cocking a snook at the lovers or whether the two are annoyed to find that the great public's lover affairs are so trite, the point is cleverly made. Coming from Berlioz, who took his own affairs with such portentous seriousness while giving them lavish publicity, it is peculiarly revealing.

The opera was finished in 1837. After failure in Paris and thirteen years later drastic revision and some evanescent popularity in Germany, it is recalled to mind today, by a public that probably has never heard the opera complete, as having given rise to two splendid overtures, each an indispensable ingredient of orchestral programmes year in, year out. Through each glowing work stalks the arresting figure of an excessive personality, the hero of the tale, the artist of genius Benvenuto Cellini, if indeed he and not Berlioz be the hero there. Cellini would neither have understood nor admired this music. His ideas of the function of art, whether to entertain or to exalt, were not those of the nineteenth century French musician. But Berlioz the man he would have placed at a high value. Those two superb biographers had much in common as men.

Symphony in D minor - - - - - *Franck*
(1822-1890)

Lento, leading to Allegro non troppo

Allegretto

Allegro non troppo

Franck's symphony, the only one he wrote, appeared in 1888. It came near the end of a life of laborious work as an organist and a teacher, a life, too, of intense religious experience. It is almost certainly that experience which engenders the emotional atmosphere of the symphony. The organist can be heard in the abrupt contrasts between a loud passage and a soft, as though the player's hands were moving from manual to manual, the stops ready drawn and the dynamics set ; a French organist, naturally, with a more mercurial mind than his German or English colleagues. And in the new design he gives the symphony there is evidence of Franck the inspired teacher of composition.

SIDNEY HARRISON

Figure 1: Excerpt from the programme notes of 24 September, season 1955/56. Copyright/courtesy: LSO.[52]

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52   As many of the (early) concert programmes do not include page numbers at all – as in this example – I can only refer to page numbers where available.

Orchestra News

At the end of a remarkable 75th Anniversary, The London Symphony Orchestra can look back on a year of intensive artistic achievement not only in this country but all over the world. Recent tours have included Mexico City, Russia, Germany and Austria, Japan and Korea, Paris, Madrid, and Yugoslavia. Further plans include visits to the Flanders Festival, Berlin Festival, Hamburg, Paris, USA and Canada, Italy, Germany and the Vienna Festival all with Principal Conductor Claudio Abbado and Spain with Conductor Emeritus André Previn.

This concert opens the 1980/1981 London Concert Season which includes two performances of Bruckner's 8th Symphony and an all Wagner concert conducted by Principal Guest Conductor Yevgeny Svetlanov. On 2 December, Aaron Copland conducts his 80th Birthday Concert with Jack Brymer playing the Copland Clarinet Concerto. Conductors for this season include Dr. Karl Böhm (President), Claudio Abbado (Principal Conductor), Sir Colin Davis (Principal Guest Conductor), Yevgeny Svetlanov (Principal Guest Conductor), André Previn (Conductor Emeritus), Sergiu Celibidache, Riccardo Chailly, Paavo Berglund and Eduardo Mata.

As Principal Conductor, Claudio Abbado is scheduled to conduct 70 concerts with the LSO, both at home and abroad. Maestro Abbado has just completed his first highly successful year as Principal Conductor of the Orchestra. He has conducted a wide and varied repertoire from Bach and Beethoven to Mahler and Schoenberg, and a new work by Brian Ferneyhough. As an exclusive artist with Deutsche Grammophon, he has made many recent recordings with the Orchestra as well as two television documentary features and three televised concerts. Dr. Böhm has also recorded Tchaikovsky Symphony No. 6 with the Orchestra to add to the 4th and 5th symphonies already recorded with the LSO. André Previn made the award-winning digital recording of Debussy's 'Images' for EMI. Recordings have also been made with major companies under Sir Colin Davis, Yevgeny Svetlanov, Charles Mackerras, Eduardo Mata, Kurt Sanderling, Neville Marriner and Andrew Davis. The Orchestra's 'Classic Rock' recordings have continued with 'Classic Rock IV' recorded earlier this year and soon to be released.

The LSO recorded in January the soundtrack of the film 'The Empire Strikes Back' released in June 1980. This is the second film in the 'Star Wars' series with music composed and conducted by John T. Williams. It followed this with the recording of the soundtrack for the film 'Omar Mukhtar' with music composed and conducted by Maurice Jarre.

The plan for the Orchestra's move into its new home at the Barbican Arts Centre is now in its final stages. The Orchestra will be in residence in the Hall for three separate months of each year, and its administrative offices will move to the complex in 1981. The Orchestra will begin acoustic tests in the hall at the end of 1980 and throughout 1981. Details of the first season in 1982 are due to be announced by the Barbican Arts Centre and the London Symphony Orchestra during the coming months.

LONDON SYMPHONY ORCHESTRA
PAST, PRESENT AND FUTURE

Hans Richter, Principal Conductor, 1904-11.

Edward Elgar, Principal Conductor, 1911-12.

1904 Founding of the LSO as this country's first independent, self-governing orchestra – a limited company with the players as shareholders

1906 First British orchestra to tour abroad

1908 First London performance of Elgar's first symphony

1911 Edward Elgar becomes Principal Conductor

1912 First visit to the United States (narrowly avoiding travelling on the Titanic)

1912 First recording for the Edison Bell Company

1934 First recorded film score for H G Wells' *Things to Come*

1946 LSO performs in a film called 'Instruments of the Orchestra', featuring the premiere of Benjamin Britten's *The Young Person's Guide to the Orchestra*

1964 LSO makes its first world tour

1966 First season as resident orchestra at the Florida International Festival

1973 LSO is resident orchestra at the Salzburg Festival, first British orchestra to appear there

Artur Nikisch, Principal Conductor, 1912-14.

1976 First Shell LSO Music Scholarship and National Tour

1978 LSO shares in 3 Grammy awards for the score to *Star Wars*

1982 Barbican Centre opens, LSO wins first ever London orchestral residency

1988 LSO establishes education policy

1988 LSO wins first ever Royal Philharmonic Society Orchestral Award for 'excellence in playing and playing standards"

1989 Concert performances of *Candide* with Leonard Bernstein

1990 LSO visits Japan with Bernstein and Michael Tilson Thomas, creating the Pacific Music Festival in Sapporo – the first of its kind

1991 Colin Matthews appointed Associate Composer

1991 Enhanced Funding Award from the Arts Council matched by the Corporation of London

1992 LSO wins five Gramophone Awards

 LSO also shares Grammy award for *Candide*

1993 LSO wins Emmy Award for Concerto!

1993 Richard McNicol appointed as LSO's Music Animateur

1995 LSO receives the Evening Standard Classical Music Award for 1994 for "Outstanding Ensemble Performance"

1995 Sir Colin Davis becomes Principal Conductor

Thomas Beecham, Principal Conductor, 1915-17, meets Willem Mengelberg, Principal Conductor 1930-32. (*Albert Coates 1919-22, and Sir Hamilton Harty 1932-34*).
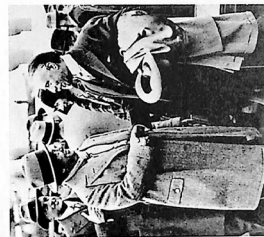
Figure 2: On the left, a section on 'Orchestra News' from 22 September, season 1980/81; on the right, a timeline of the LSO from 20 September, season 1995/96. Copyright/courtesy: LSO.

Figure 3: An introductory overview of the LSO's activities and programmes in the concert programme of 25 September 2010/11 (pp. ii–iii). Copyright/courtesy: LSO. Figure 4: Front sheet and programme note from 5 October, season 1975/76 (pp. 3–4). Copyright/courtesy: VPO.

IN MEMORIAM HANS SWAROWSKY

Wolfgang Amadeus Mozart

Messe in c-Moll, KV 139
„Waisenhausmesse"

1. Kyrie
2. Gloria
3. Credo
4. Sanctus
5. Benedictus
6. Agnus Dei

Solisten:
Gundula Janowitz (Sopran)
Frederica von Stade (Alt)
Wieslaw Ochman (Tenor)
Kurt Moll (Baß)

Chor:
Konzertvereinigung
Wiener Staatsopernchor

Einstudierung:
Norbert Balatsch

Orgel:
Rudolf Scholz

PAUSE

Ludwig van Beethoven

Symphonie Nr. 1, C-Dur, op. 21

1. Adagio molto — Allegro con brio
2. Andante cantabile con moto
3. Menuetto. Allegro molto e vivace
4. Adagio — Allegro molto e vivace

Wolfgang Amadeus Mozart
geboren am 27. Jänner 1756 in Salzburg
gestorben am 5. Dezember 1791 zu Wien

Missa für vier Singstimmen, zwei Violinen, zwei Oboen, drei Posaunen, vier Trompeten, Pauken, Baß und Orgel in c-Moll, KV 139 (47 a) „Waisenhausmesse"

Die sogenannte „Waisenhausmesse" hat in der Mozart-Forschung ihre eigene Geschichte. Man wußte, daß Mozart für die feierliche Einweihung der Waisenhauskirche, die am 7. Dezember 1768 in Anwesenheit der Kaiserin und ihrer Kinder Elisabeth, Maria Amalia, Ferdinand und Maximilian stattfand, eine Messe nebst Offertorium und Trompetenkonzert (wohl für die Epistel) geschrieben hatte. Da keine der bekannten Messen einen entsprechenden Hinweis zeigt, war man auf Vermutungen angewiesen. Diese richteten sich zuerst lange Zeit auf die G-Dur-Messe, KV 49, deren Autograph den Vermerk „di Wolfgango Mozart 1768 in Wien" trägt. Problematisch blieb dabei, daß eine Missa brevis sich kaum als Festmesse vorstellen läßt. Als erster vertrat 1891 Hermann Deiters im Anhang seiner Neubearbeitung von Otto Jahns Mozart-Biographie die Meinung, daß es sich bei der Festmesse „ohne Zweifel" um die in c-Moll, KV 139, handle. Diese Auffassung wurde 1921 von Wilhelm Kurthen in einer gründlichen Untersuchung von Mozarts kirchenmusikalischen Jugendwerken bekräftigt, fand aber noch immer nicht allgemeine Zustimmung. Erst Karl Pfannhauser konnte 1954 unter Beibringung einer Fülle neuen Materials und scharfsinniger Argumentationen die Identifikation der „Waisenhausmesse" mit KV 139 in größtem Maße wahrscheinlich machen.

Ein Argument in den Spekulationen um die c-Moll-Messe bildete vielfach ihre hohe künstlerische Qualität, die es unwahrscheinlich erscheinen ließ, daß sie von einem noch nicht Dreizehnjährigen — wenn auch einem Mozart — stamme. Die französischen Forscher Théodore de Wyzewa und Georges de Saint-Foix haben in ihrem monumentalen Mozart-Buch hauptsächlich aus diesem Grund die Datierung 1768 abgelehnt und für die früher angenommene, 1772, votiert: selbst für diesen Zeitpunkt aber müsse man annehmen, daß Mozart in diesem Werk alle seine Erfindungsgabe und sein ganzes Können, über das er damals verfügt habe, konzentrieren wollte.

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Figure 4: Front sheet and programme note from 5 October, season 1975/76 (pp. 3–4). Copyright/courtesy: VPO.

MUSIKBLÄTTER
DER
WIENER PHILHARMONIKER

Wiener Philharmoniker
Am Beginn der neuen Saison

Otto Biba
Franz Berwald in Wien

Reinhard Öhlberger
Philharmonisches Tagebuch

74. JAHRGANG   WIEN 2018   FOLGE 1

MUSIK-
BLÄTTER
DER WIENER PHILHARMONIKER

Inhalt: Von Salzburg zur Abonnementsaison 1950/51 •
Verleihung der Bruckner-Medaille und Ehrenmitglied-
schaft • Der Jubiläumsring der Wiener Philharmo-
niker • Herbstreise

5. JAHRGANG   FOLGE 1

Figure 5: The front sheet of the *Musikblätter*, on the left of the programme notes from 17 September, season 1950/51; on the right are the programme notes from 22 September, season 2018/19. Copyright/courtesy: VPO.

4.3 Engaging new audiences and entertaining old ones

The audience was a recurring and important theme in the production of both the LSO's and the VPO's programmes. While this is not surprising – after all, these artefacts aim to communicate all sorts of information to the concertgoers – the expectations and assumptions that these two orchestras have about their audiences fundamentally shapes what the programmes look like and what they contain. It is crucial to note here that the two orchestras have never systematically or thoroughly researched their audiences, due to a lack of resources in time and personnel.

Both the LSO and the VPO conceive their concert programmes' main purposes in relation to their respective audiences. Fiona Dinsdale, Head of the Marketing Department of the LSO, and in charge of overseeing the production and development of the programmes, describes that the programmes are 'meant to enrich the audience members' experience of the music' (interview, 2020). The enrichment of the concert experience is, as shown by scholars in the field, a standard goal of these objects (Blom, Bennett, & Stevenson, 2016). Michael Bladerer, double bassist and managing director of the VPO, states that their programmes ought

> to give the audience extra information that they did not yet have. And to learn about the musical works. In our case, you can learn something about the works and about the orchestra. [...] And, of course, to always be up to date.[53] (Bladerer, interview, 2020)

While learning about the music is often seen to enrich an audience's concert experience, also the ensemble and its activities play a major role in communicating with the audience. Silvia Kargl, archivist at the VPO, argues that in addition to providing information on the music, the concert programme is 'an audience engagement tool' that creates and establishes a bond with the concertgoers (interview, 2020).[54] Dinsdale shares this insight and states that one of LSO's ongoing responsibilities is to 'think about how our programmes should evolve to continue serving our audiences' (interview, 2020). For both ensembles, the concert programmes communicate information and help establish and maintain relationships. However, these orchestras' audiences are rather different. Here, the ensembles' organisational, historical, and cultural contexts come into play.

Since 1984, the LSO has resided in London's Barbican Centre, a brutalist complex that encompasses a concert hall, a museum, offices, restaurants, bars, shops, and living quarters. Although Dinsdale recognises a core audience, she describes the visitors of the

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53 Original quote: 'Dem Publikum Mehrinformation zu geben, die sie so noch nicht hatten. Und etwas über die Werke zu erfahren. In unserem Fall kann man etwas über die Werke erfahren und über's Orchester. [...] Und immer auf dem Laufenden zu sein.'

54 Original quote: 'Das Programmheft ist in erster Linie eine Information für die Konzertbesucher, und parallel dazu auch – wenn man das Wort Instrument dafür verwenden will – ein Instrument zur Publikumsbindung.'

LSO's concerts – particularly of those that take place at the Barbican – as broadly mixed, representing a range of ages and backgrounds (interview, 2020). Bhesania, who has worked in London's concert life for decades, describes how '[on] any night, you might get academics, professional performers, music students, people who have never been to a concert before, and people on holiday who just want to visit a concert' (interview, 2020). The varying and fluctuating backgrounds of the audience members – musically, socially, and culturally – have made the LSO increasingly aware of the need to balance different kinds of information in the concert programmes in order to serve as many audience members as possible. In this balancing act, the LSO aims to maximise this information's accessibility. This has resulted, for example, in a decrease of musical terminology in the programme notes, which goes hand in hand with a shift from music theoretical knowledge to contextual insights into the music and the ensemble. It has also led to the inclusion of more advertisements in the programmes over time, as this enables the orchestra to provide the booklets for free, hence reaching more concertgoers (Dinsdale, interview, 2020).

With London being a popular tourist destination, the LSO competes with cultural institutions such as theatres, museums, opera houses, and other orchestras. The concert programme is one important platform through which audiences get to know the ensemble. Dinsdale (interview, 2020) describes how, in reviewing the concert programmes, she constantly asks herself: 'If someone was new and coming for the first time, what impression of the LSO would they get?' While the diversity of the audience is the reason for pursuing accessibility of information, this diversity and resulting fluctuation also necessitates a thorough introduction of the LSO and its musicians. As a self-governing orchestra, the LSO finds it particularly important to present the musicians as the main driving force of the institution. This is visible in the recent inclusion of all musicians' portrait photos, which forges, Dinsdale argues, moments of acquaintance, recognition, and identification for the concertgoers with the orchestra's members (Ibid.; see Figure 9). In addition, detailed depictions of the LSO and its activities in the booklets, particularly educational projects, aim to make the orchestra stand out in London's cultural landscape and intend to further connect to and attract local communities and inhabitants.

For the VPO, the situation is different. Vienna is no less a tourist magnet, but the concerts organised by the VPO itself cannot be visited by a general audience: they are subscription-based concerts. Individuals can apply for a subscription, which will subsequently grant audience members an ongoing supply of tickets for the concerts of the VPO. In contrast to season tickets, these subscriptions are valid for as long as the subscription holders live. Bladerer estimates that the waiting list for a subscription is currently up to fourteen years long (interview, 2020).[55] This system has major consequences: it results in a high average age of the audience members (due to the long waiting list), and all the tickets

55 Even if a subscription holder dies, this does not necessarily mean that the orchestra can award a subscription to someone else. Sometimes it is kept and used by relatives or friends, like an heirloom. This is not allowed but, as Bladerer says, it is sometimes unavoidable (interview, 2020).

of subscription-based concerts are by default sold out. Of course, the VPO also participates in external concert engagements as well as regular festivals and tours, meaning that they play many more concerts overall. This means that the ensemble can rely on a stable income. In addition, the limited number of subscriptions resulting from this arrangement leads to them being highly sought after, adding an air of prestige and exclusivity. The system further stimulates the desire to become part of the 'selected few'.

Most importantly, the subscription-based system implies that, in theory, the orchestra plays for the same audience members in each subscription concert. Wolfgang Plank, oboist and until recently head of the VPO's archive, elaborates:

> Our concert programme has grown a lot with our subscription system. Our subscribers, who are our extended family. That's how we feel about them, considering that we are seeing them so regularly. A good ten or eleven times a year, be it on Saturday or Sunday, you always know [...] who is sitting where, you follow who has remained loyal. This intimacy to the audience is, I think, also grounded in the information that we pass on through our programmes. (Plank, interview, 2020)[56]

As Plank highlights, this means that also the concert programmes are read by basically the same people every time. The VPO produces the concert programmes in such a way that accounts for and builds on this circumstance. Otto Biba, long engaged as the head editor and author of the VPO's programme notes, explains that the programme notes have to offer new information on a musical work every time it is performed in concert (interview, 2020) because most pieces that the VPO plays in the subscription concerts are already known by the audience, leading the orchestra to assume that there is no need for an introduction to these works in the programmes. Another reason is that the orchestra expects the audience to react unfavourably when presented with information printed before – hence, repetition is avoided at all costs. As I will illustrate in the next section, this expectation connects to specific ideas of musical expertise and the desire to communicate state-of-the-art musicological research, leading to an ongoing generation of new knowledge in the programmes.

The assumption that the audience is well-informed about the music and the VPO's repertoire is key to understand the absence of conductor and artist biographies, too. As their audience are regular guests, the VPO expects the audience members to know them: 'Our audience knows Riccardo Muti, of course. We don't have to write that he was born in Naples' (Kargl, interview, 2020).[57] Such assumptions also affect the meaning of the philharmonic diary.

56   Original quote: 'Grundsätzlich ist unser Programmheft sehr gewachsen mit unserem Abonnement-System. Unsere Abonnenten, die eigentlich unsere erweiterte Familie sind. So empfinden wir das selbst, so regelmäßig wie wir sie sehen. Die gut zehnmal, elfmal im Jahr, sei es am Samstag oder am Sonntag, man weiß immer [...] wer sitzt wo, man verfolgt, wer ist treu geblieben. Diese Nähe zum Publikum ist, glaube ich, auch begründet anhand der Informationen die wir dem Publikum über unsere Programmhefte auch weitergeben.'

57   Original quote: 'Unser Publikum kennt Riccardo Muti, selbstverständlich. Da müssen wir nicht reinschreiben, dass er in Neapel geboren ist.'

Rather than offering mere updates on the VPO's activities, the philharmonic diary is a tool to establish and manifest the orchestra's history, but it is also indispensable in maintaining the relationship with the audience. As Plank's quote above illustrates, the wish to forge a long-lasting bond and trust between the orchestra and its audience necessitates and explains the high level of intimacy that is created through the details included in the philharmonic diary.

The orchestras' different understandings of and expectations about their respective audiences lead to the programmes' different functions and developments. As an orchestra whose concerts are open to a broad international public, the LSO has to respond to broader societal and cultural changes. Consequently, the concert programmes include a significant amount of easily accessible introductory information. This also stimulates the orchestra to flesh out its identity. Paradoxically, and as I will show in more detail below, this situation results in the rather stable reproduction of certain bodies of musical knowledge over time. At the VPO, the subscription-based system creates and maintains an image of classical music as exclusive. It also creates an elite and stable constellation of the audience. This leads to the concert programmes' ability to move beyond the boundaries of 'introduction' and include new bodies of knowledge and information while using the orchestral news and activity section – the philharmonic diary – as an instrument to further strengthen the bond with the audience. While the VPO's security in terms of revenue and audience explains a lack of necessity to innovate their concert programmes, one could also ask why the orchestra should not experiment more with its concert programmes; the system in place could also be seen as a safety net that encourages and enables the exploration of more radical possibilities, innovations, or changes. Here, the stability of the audience resulting from the obdurate subscription system enables particular changes and novelties in the programmes' contents; in contrast, at the LSO, the fleetingness of the audience requires the institution to remain flexible in their conception of the programmes.

An important example of how the assumptions of orchestras about their audiences concretely affect the programmes will be the focus of the next section, in which I examine the production of knowledge and the role of musical expertise in mainly the programme notes (and, in case of the LSO, composer profiles). This will provide more insight into how these artefacts intertwine matters of change and tradition in non-dichotomous ways, further demonstrating how obduracy in the organisational settings might connect to the ephemerality or materiality of the artefacts.

4.4 Expertise, perspectives, apostles

In the past, the main function of concert programmes was to provide information on the musical works to the concertgoers through the programme notes, meaning texts about musical works. Today's concert programmes serve more than one purpose, but the origi-

nal purpose remains a crucial one. At the LSO and the VPO, information on the music has started to appear also in elements like composer profiles and the *Musikblätter* essays, which are both included in the below analysis. The programme notes, however, have retained their position as the primary platform for communicating musical interpretations and ideas, and are thus at the heart of this section. While the practices and settings of their making differ between the two ensembles, knowledge and expertise play a crucial role in both.

The production of the LSO's concert programmes relies on a clear division of labour. Whereas the Marketing Department of the LSO produces most of the booklets' contents in-house, it commissions external authors to write the programme notes and the composer profiles (Dinsdale, interview, 2020). Artist biographies, in turn, are provided by the artists' agents (Rice, interview, 2020). A commission policy of the programme notes enables the orchestra to have the copyright of the texts transferred to them so that the ensemble can reprint the texts in the future without having to commission them anew every time. This happens mainly for reasons of time, staff load, and budget. Dinsdale explains:

> If it's a piece of music that the orchestra might be playing often, it's a streamlined way of doing it. But we review every programme note individually and decide whether we want to reprint it, or whether we want to commission something new. (Dinsdale, interview, 2020)

Reprinting the same texts implies the reproduction of certain ideas, interpretations, and knowledge of a musical work. As seen in Dinsdale's quote, this effect is more likely to affect works that are performed regularly, and which are part of the LSO's standard repertoire. While this raises the question of how frequently a work is actually performed and therefore subjected to a reprint in the notes, over time, reprints may lead to the manifestation or conservation of certain understandings of the works within the LSO's standard repertoire. However, the department also regularly commissions new notes by different or new authors – for example, when they consider an existent programme note as 'too technical' or theoretical for the broad audience that the orchestra expects (Dinsdale, interview, 2020).

Over time, the LSO has established a pool of external authors, some of whom have worked for the orchestra for decades. They are classical music experts like music journalists, music critics, or musicologists. Bhesania, speaking for the BBC concert programmes, where a similar commissioning system is in place, argues:

> It's amazing that we can approach a leading international Beethoven expert to write a note about Beethoven. […] I think that stands for a lot. It's something we need to do: to give our audiences brilliant contributors for the programme notes. (Bhesania, interview, 2020)

Also at the LSO, expert knowledge is a main criterion for the selection of contributors, who write both programme notes and composer profiles. The LSO considers them 'trusted

voices' (Dinsdale, interview, 2020). Although the commissioning system helps streamline organisational processes, the external authors serve as authorities and quality markers that support the legitimisation of both the concert programmes and the work of the orchestra. This is evidenced by the introduction of brief author biographies from the early 2000s onwards, which aim to lend further credibility to the writers.[58] Next to musical expertise, Dinsdale stresses that the Marketing Department considers the authors' experiences in writing programme notes and in communicating music to a broad audience as important, as well as their 'own voices and styles' (interview, 2020). The commissioning system therefore establishes and reinforces a specific genre of writing about music in the notes and profiles: although the LSO constantly seeks to expand its pool of authors in order to provide new perspectives, these do not usually come from fields outside of musical expertise.

Musical expertise is the main criterion in order to create and safeguard the aspired quality of the programme notes and composer profiles. As mentioned, this musical expertise rests on a selection of a few fields, particularly musicology, music criticism, and music journalism. This increases the probability of the reproduction or manifestation of particular bodies of knowledge and ways of writing about music, as I will show in the next section. Yet commissioning new authors raises not only epistemological issues but also societal ones: as Bhesania argues, British orchestras today consider questions of diversity and inclusivity carefully (interview, 2020). The acknowledgement that the commissioning process of programme notes and profiles can help reflect wider societal developments has led to a desire to increase the number of female writers as well as writers from different ethnic backgrounds. For orchestras, such representational issues, however, raise questions about the relationship between expertise and diversity or inclusivity.

These topics are a challenge for the VPO.[59] This challenge is born from both the exclusive and homogeneous audience of the orchestra's subscription-based concerts as well as that of the organisation's own and affiliated staff. Biba, who has been head editor and author of the VPO's concert programmes' notes and *Musikblätter* essays since the 1970s, directs a stable team of three to four authors (Biba, interview, 2020). Technically, this team belongs to the Gesellschaft der Musikfreunde Wien, which is the association from which the VPO rents concert and office spaces at the Musikverein. The orchestra therefore employs authors from an organisation with which it has closely cooperated throughout its history, and which enjoys the VPO's trust. It might be argued that the programme notes and *Musikblätter* essays are neither produced by fully external authors nor fully within the orchestra. For decades,

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58 See, for example, the following biographical note of the author Stephen Johnson, taken from the concert programme of 18 September/9 October, season 2005/06: 'Stephen Johnson is the author of Bruckner Remembered (Faber). He also contributes regularly to the BBC Music Magazine and The Guardian, and broadcasts for BBC Radio 3 (Discovering Music), Radio 4 and the World Service. He is also the 2003 Amazon.com Classical Music Writer of the Year' (p. iii).

59 Recent critical discourse on the VPO concerns the orchestra's handling of problems such as racism, sexism, tokenism, and exclusivism (see Osborne, 1996, 1999; as well as plenty of journalistic coverage of these issues, to give a few examples: Jackes, 2010; Kosman, 2012; Service, 2013; Nayeri, 2019).

also the philharmonic diary has been in the same hands – namely, those of former orchestra member (violinist, later president) and historian Clemens Hellsberg, who has recently been superseded by another retired orchestra member (Bladerer, interview, 2020).[60]

Particularly the programme notes pose challenges to these few authors. As mentioned before, Biba considers their main task to provide new insights into the music each time it is performed:

> Now the *Eroica* [Beethoven's *Symphony No. 3*] is being played again and I have to give the audience insights into the work. But they must be different from last time. They need to build on each other. Or, I have the possibility to present new research results, new knowledge […] about the *Eroica* […]. I would like to bring to the public tomorrow what I learn today as a scientist about the latest state of the art. (Biba, interview, 2020)[61]

The desire to deliver new information or provide the latest research on a musical work leads to the emergence of new understandings and perspectives about the music. This is possible because both the audience and the authors remain firmly in place. While the audience is assumed to expect new or at least different insights into the music, the small number of authors means that the writers have good insight into what has been produced so far, which significantly facilitates the workflow. Biba stresses that the decision of who writes which text depends on – in addition to practical issues – an authors' 'access' to a piece. The author needs to be able to promote the musical work credibly: 'I don't want to just write about a work, I want to be its apostle. And I have to be honest to myself, and say, X is the better apostle for this work than I am, so they get to write the text about it' (Biba, interview, 2020).[62] Expertise is not enough when deciding who writes about which musical work. The idea of an author becoming an apostle of the music attaches a sacral quality to it. In Christian theology and the New Testament, the apostles are considered Jesus's closest followers; they are teachers of the gospel of his message. The idea of authors becoming apostles points to processes of sacralisation of (secular) classical music in the nineteenth century, which helped position the musical work as a transcendent object whose message needs to be translated and communicated for an audience to receive in ritualistic 'silent

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60   On a side note, after its publication, Austria's Green Party has initiated a debate on Hellsberg's most famous book, *Demokratie der Könige* (1992), which they accused of omitting or trivialising the VPO's National Socialist past. For more on this past, see also Mayrhofer & Trümpi (2014); Pestel (2019). The orchestra has since made plenty of efforts to systematically and comprehensively process and investigate this history (Plank, interview, 2020; Oestreich, 2014a, 2014b).

61   Original quote: 'Jetzt wird wieder die Eroica gespielt, und ich muss dem Publikum Einblicke zur Eroica liefern. Aber das muss heute anders sein als das letzte Mal. Das soll aufeinander aufbauen. Oder ich habe die Möglichkeit dem Publikum neue Forschungsergebnisse, neues Wissen […] über die Eroica zu bringen […]. Was ich heute als Wissenschaftler aus dem neusten Stand erfahre, möchte ich morgen an die Öffentlichkeit bringen.'

62   Original quote: 'Ich will ja nicht einfach über das Werk schreiben, ich will ja… Apostel sein. Und dann muss ich mir gegenüber glaubwürdig sein, und dann sag ich, X ist für dieses Werk der bessere Apostel als ich, daher kriegt er den Text über dieses Werk zu schreiben.'

awe' (Matras, 2021).[63] Therefore, next to expertise, the author selection hinges on implicit criteria like faithfulness, credibility, authenticity, and responsibility.

Sacralisation is a crucial part of processes of canonisation, but here science is, too. From Biba's first quote, it becomes clear that programme note writing is also a scientific endeavour, particularly a musicological one. He sees the programmes as a *Bildungsinstrument* that educates the audience on a long-term basis (Biba, interview, 2020). One task of the programmes becomes to transform the concert from a 'mainly social event into an educational event' and to reattend to the concert as musical-artistic experience (Biba, interview, 2020).[64] The creation of educational, high-quality insights happens primarily from a musicological perspective – the field in which Biba is at home as a scholar himself. This musicological expertise, however, is constantly interwoven with the VPO's own history and tradition. Archival material relating to the VPO's history – taken from the orchestra's own archive, the archive of the Gesellschaft für Musikfreunde (of which Biba was the director until recently) as well as other archives (such as Biba's personal one), play an important role in the creation and communication of new knowledge. Materials like original scores, letters, postcards, or photos of events and objects regularly appear in the concert programmes either as source material for the texts or as printed illustrations accompanying the texts (see Figure 6).

The intertwinement of the latest musicological research with more local and historical materials reveals how the music and the orchestra relate to each other, yet it also grants audiences access to archival materials that are usually inaccessible. This manifests the orchestra's position in Viennese musical life and history by drawing attention to the ensemble as institution involved in the production and (albeit limited) dissemination of new knowledge of this musical heritage.

To conclude, both the LSO's and VPO's production processes revolve around the provision of musical expertise. This presents a specific way to legitimise the two ensembles' musical and cultural relevance. The commissioning system of LSO, itself an obdurate infrastructure in the organisation's workflow, at first glance seems to provide significant potential for the generation of new insights through its ability to constantly employ new and increasingly diverse authors. Yet, paradoxically, the reprinting practice that results from the commissioning system might lead to the production and reinforcement of certain bodies of musical knowledge over time. This is strengthened by the fact that the inclusion of new authors depends on an idea of quality that the orchestra locates mostly in musical expertise of a few, selected fields. While the VPO operates within a similar obdurate infrastructure – in this case, the long-term engagement of editors and authors and a stable audience – this infrastructure enables and necessitates the emergence of new musical knowledge in and

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63 Matras (2021) highlights that these processes of sacralisation largely replaced the role religion had played before in the sanctioning and maintenance of social order while also helping classical music to ascend into the realm of 'high' culture.

64 Original quote: 'Ich muss den Konzertbesuch von einem gesellschaftlichen Event […] zu einem Bildungselement, Bildungsprogramm machen.'
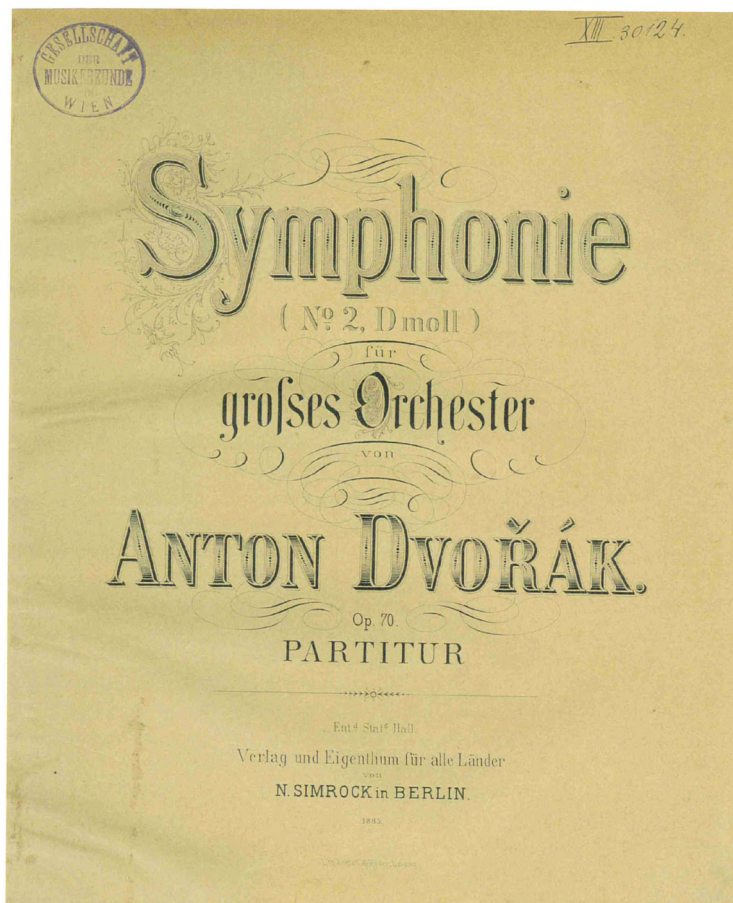
Figure 6: An example of the inclusion of archival material in the programme notes. Excerpt from the programme from 23 September, season 2018/19 (p. 9). Copyright/courtesy: VPO.

through the notes and *Musikblätter* essays. In-depth explorations of musical works over time draw from the relationship between the music and the orchestra and happen through the inclusion, investigation, and processing of latest research and archival material. However, the subscription system severely obstructs public access to this knowledge.

In short, while both orchestras' infrastructures are obdurate in their own ways, they both potentially enable the emergence of changing interpretations – the VPO more so than the LSO – in the programmes and programme notes, which are, as ephemeral objects, pro-

duced anew again and again. Using older notes as reference points, both orchestras neither view nor enact these as merely fleeting booklets but recognise them as objects that play an important role in materialising and communicating different knowledges over periods of time. The focus on specific areas of musical expertise and how these appear in the programme notes, however, potentially restrains what listeners could learn about the music and the orchestra. The implications of this are the topic of the next section, which revolves around writing and authoring programme notes.

4.5 'Like stars across the night sky': Language and writing

Having established the crucial role of musical expertise in the two orchestras' concert programmes, I will now analyse how language and writing are involved in potentially 'fixating' but also changing understandings of the music and the ensembles. In doing so, I will focus on the programme notes because, as Dinsdale articulates, 'there's a defined style in writing them. It is quite an established tradition' (interview, 2020). Considering this, the notes are a good example of how these orchestras negotiate well-established aesthetic musical ideals in connection to their own histories and identities. The latter might affect or even change this aesthetic tradition and its conventions.

Programme notes combine various kinds of information, coined by Blom, Bennett, and Stevenson (2020) as analytical, contextual, and descriptive. Analytical information refers to technical and music theoretical details, like compositional structure or instrumentation of a piece. It mostly appears as seemingly neutral and factual, as this description by the LSO of Carl Nielsen's *Symphony No. 5* shows:

> The first movement falls into two related halves that correspond to the two tempo indications. The opening is deliberately vague, the two bassoons over a minor third tremolo on the violas suggesting no particular key.[65]

The author presents his reading of the composition as fact. The description of the interaction between instruments, as well as the author's invisibility in the text (achieved for example by the use passive voice), support this impression. Stephen Johnson, author and long-time programme note writer at the LSO, highlights that such analyses are never neutral or objective:

> At university, I was taught that talking about the emotional life of a piece is subjective, entirely personal, and therefore has no meaning. Whereas analysis is scientific, objective, and logical. [...] Looking at these analyses, I thought: 'This is as subjective as anything.' The number of analyses I've read on Beethoven's *Symphony No. 5*, first movement, that say that

65   From the LSO's concert programme of 21 September, season 1975/76. Author: Malcolm Rayment.

everything derives from ta-ta-ta-taaaa. And then you get to that part in the first movement, where there is that oboe cadenza and everything stops. So many writers just ignored this moment in the piece, because it didn't fit into their understanding. (Johnson, interview, 2020)

Musical analyses are highly selective and dependent on the author. Yet an important strategy of generating the impression of neutrality and factuality is to deliver evidence or proof – for example, by including musical examples (excerpts of a score). Excerpts of scores are largely absent in the LSO's programme notes during the researched period, but they appear regularly in the VPO's programmes until roughly 1975/76 (see Figure 7). Today, both Dinsdale and Biba question the helpfulness of musical examples for the audience (interview, 2020). At the LSO, this doubt arises from the varying backgrounds of the audience members; at the VPO, concertgoers usually already know the music well.

Musical examples have therefore vanished from both orchestras' notes, yet they continue to exist in the creation and establishment of musical sights that help present the analyses as objective knowledge. As shown in Chapter 3, selecting and describing moments in the music is a common mechanism to guide audiences in listening to a work. Yet how and why authors select certain passages to describe is usually not transparent; often, the described passages are clearly audible moments, or recurring themes or figures.

The notes of the LSO consistently designate a few musical sights in each movement of a work, pointing out both well-known moments and potentially interesting occasions in the music that might be lesser known. The VPO's notes, in contrast, become less rigorous in doing so over time. Because the VPO expects the audience to know the pieces, the programme notes have gradually moved away from listing musical sights towards featuring more contextual information.

What does change at the LSO is the language: there is a notable decrease in musical terminology, particularly in recent decades. Johnson describes that, while it was common to use musical terms without any explanation in the past – such as fugue, glissando, or sonata form – audiences nowadays do not necessarily understand these terms anymore. He is 'not sure I'd even use them for a specialist audience today, because freeing myself from them has been liberating' (Johnson, interview, 2020). Johnson considers expert terminology as a potential constraint; circumventing this terminology, he seems to imply, can open up new ways of approaching and understanding the music. This insight raises the question of how the authors of the notes enact and communicate musical expertise and knowledge. Finding alternatives to this specialist language is not easy. Although the LSO aims to make the musical writing accessible by providing basic explanations of musical terms, these are deeply embedded in the writing.[66] This is visible in the VPO's notes, which feature rich terminology throughout the entire researched period. This example is an excerpt from a note on Franz Berwald's *Symphony No. 3*:

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66 The degree depends not only on the different authors' styles and understandings. Not all authors share Johnson's motivation and efforts.

Im **ersten Satz** dieses „herrlichen, klaren, feurig-strömenden Werkes", wie Carl Maria von Weber Beethovens erste Symphonie nennt, entwickelt sich aus der Dissonanz am Anfang des Werkes

— ungewöhnlich in der Symphonie des achtzehnten Jahrhunderts — der Gewohnheit Haydns folgend eine zwölftaktige langsame Einleitung **(Adagio molto),** die der Vorbereitung und Sammlung dienen soll und die wie auf der Suche nach dem rechten Beginn gleich einer Kadenz zum **Allegro con brio** mit seinem kernigen Hauptthema

überleitet. Energisch bringen es die ersten Geigen, hartnäckig den Grundton wiederholend, und führen es nach seiner Wiederkehr in d-Moll in ein sanft schwärmerisches Seitenthema:
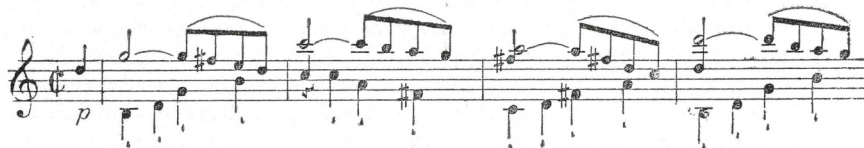
In seinem Vortrag lösen sich Oboe und Flöte einander reizvoll ab und singen sich mit einer romantischen Mollwendung im Pianissimo das innige Motiv zu, während das Thema von den Bässen weitergesponnen wird. Die Wiederholung des Hauptthemas führt mit feierlichen Unisonoklängen der Bläser zur Durchführung und schließlich in dramatischer Steigerung zum Höhepunkt des ersten Satzes (a-Moll), der im vollen Orchester über die Reprise zur Coda strebt. Impulsiver Schwung und fesselnde Themenverarbeitung zeichnen diesen Eingangssatz der bewußten Lebensfreude aus.

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Figure 7: Excerpt of the programme note for Beethoven's *Symphony No. 1,* taken from the programme of 5 October, season 1975/76 (p. 17). Copyright/courtesy: VPO.

In contrast, the sonata form of the first movement, which is treated according to the rules, is quite traditional. The secondary theme of the final movement is derived from the secondary theme there: An artifice that acts like a parenthesis for the first and last movement. This underlines the three-part character of the four-movement work, because the first and

last movements do not stand independently on their own but refer to each other; and in between lies this strange and original conglomeration of Adagio and Scherzo.[67] (p. 7)

Biba argues that the absence of particularly common musical terminology could result in audience members feeling infantilised, as this would imply that the orchestra assumes that the audience does not know these terms (interview, 2020). The continuing use of musical terminology therefore represents an acknowledgement of the concertgoers' musical education and helps build and maintain a relationship of trust with the audience.

Both orchestras' programme notes, however, also thrive on contextual information. This includes historical, political, and cultural background information on the period and locations connected to a piece, as well as how a work was composed or received at a given point in time. In case of the LSO, the notes on a work often reference related compositions by the same or another composer. Various works become related to each other:

> The *Spring Symphony* is divided into four sections broadly corresponding to the movements of the Classical symphony, and owes some debt to Mahler's example, particularly *Das Lied von der Erde*.[68] (p. 30)

In the VPO's programme notes, contextual information often takes the form of local or national and historical insights. These are used to embed the works in Viennese musical life and history:

> In August 1859, Richard Wagner had completed the composition of his musical drama Tristan und Isolde, which he had begun in October 1857. […] Other cities had been planned as premiere venues before that, including Vienna, where 77 rehearsals had already taken place at the Court Opera under Wagner's direction before the work was cancelled again due to great difficulties.[69] (p. 8)

At both orchestras, contextual information frequently takes the form of narratives, stories, or anecdotes, which scatter across the programme notes, biographies, profiles, and *Musikblätter*. In this, the personal backgrounds of the composers play an important role. Johnson argues that

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67 Some of the nuance of this jargon is, unfortunately, lost in translation. See the original text: 'Demgegenüber ganz traditionell gibt sich die mehr oder weniger regelgerecht behandelte Sonatenhauptsatzform des ersten Satzes. Aus dem dortigen Seitenthema ist das Seitenthema des Schlusssatzes abgeleitet: Ein Kunstgriff, der wie eine Klammer für ersten und letzten Satz wirkt. Das unterstreicht den dreiteiligen Charakter des viersätzigen Werkes, weil Stirn- und Schlusssatz nicht unabhängig für sich alleine stehen, sondern aufeinander Bezug nehmen; und dazwischen liegt dieses seltsame und originelle Konglomerat von Adagio und Scherzo.' From the VPO's concert programme of 22 September, season 2018/19 (p. 7). Author: Otto Biba.

68 From the LSO's concert programme of 16 September, season 2018/19 (p. 30). Author: Philip Reed.

69 Original text: 'Im August 1859 hatte Richard Wagner die im Oktober 1857 begonnene Komposition seines Musikdramas *Tristan und Isolde* vollendet. […] Andere Städte waren davor als Uraufführungsort vorgesehen, darunter Wien, wo an der Hofoper bereits 77 Proben unter Wagners Leitung stattgefunden hatten, bevor das Werk wegen seiner großen Schwierigkeiten wieder abgesetzt wurde.' From the VPO's concert programme of 17 October, season 2010/11 (p. 8). Author: Otto Biba.

humanising the composer is an excellent way into the music for some people. The tendency in romanticism was to concentrate on the composer and his or her emotional life or personal experiences. Now we often make it much wider and talk about his or her inheritance, the cultural inheritance of the events of the time, and how that affected them. (Johnson, interview, 2020)

The composer's background is a key means to create access to a work – even if, as seen with the LSO, this information appears in a composer profile outside the programme notes. The composer also often appears in connection to the reception of a musical piece. By describing the many achievements of a composer, the notes present this reception as indisputable. Yet it hides in the language of appraisal and colourful adjectives:

Of all Bruckner's musical voyages, the *Eighth Symphony* is probably the greatest, a true odyssey of the spiritual self, surpassed only be one's imaginings of what the completed *Ninth Symphony* might have been.[70]

This language establishes the genius of a composer and work while also actively excluding potential negative criticism about a composer or a composition. Notably, negative views are mostly framed as error in musical judgement, lack of expertise or understanding, or denial (or sometimes, even envy) of a composer's talent. Criticism takes the form of stories and anecdotes:

At the Leipzig premiere in 1816 […], the opinion of the orchestra as well as of the audience was that this symphony, especially the first and last movements, could only have been composed in a 'drunken state'; moreover, it was poor in melodies. Carl Maria von Weber is even said to have stated […] that Beethoven was now ready for the madhouse. […] It is easy to explain because this symphony, as music per se, was bound to cause difficulties for contemporary listeners: one did not understand it.[71] (p. 9)

Moving from reception to interpretation, Johnson emphasises the importance of enabling audience members to form their own understanding of a musical piece. While contextual and analytical information can assist with this, he claims it is better to actively create ambiguities, suggestions, and openings. For example, leaving certain questions unanswered or presenting contrasting interpretations can 'immediately sharpen the way you listen to a piece' (Johnson, interview, 2020). Or one can openly addresses the audience, as Johnson did in the following excerpt:

70 From the LSO's concert programme of 22 September, season 1980/81. Author: Richard Osborne.

71 Original text: 'Bei der Leipziger Erstaufführung im Jahr 1816 war, wie der Schwiegervater Robert Schumanns, Friedrich Wieck, überliefert, die Meinung im Orchester wie im Publikum, diese Symphonie, namentlich der erste und letzte Satz, könne nur in „trunkenem Zustande" komponiert worden sein; überdies sei sie arm an Melodien. Carl Maria von Weber soll sogar […] gemeint haben, Beethoven sei nun reif für's Irrenhaus. […] Das ist einfach zu erklären, weil diese Symphonie als Musik per se den zeitgenössischen Hörern Schwierigkeiten geradezu machen musste: Man verstand sie nicht.' From the VPO's concert programme of 25 October, season 2015/16 (p. 9). Author: Otto Biba.

> Does *Pohjola's Daughter* have a serious philosophical point to make about heroism – that the idea of the romantic hero, as celebrated by Strauss, has failed? […] But however you choose to interpret Pohjola's daughter, […] it is at the same time as cogent and compelling on its own terms as any of the symphonies.[72] (p. i)

Description and language can be tools to create ambiguity. Depictions of moments in the music, characterisations, moods, and emotional reactions can be combined with poetic or imaginative language entailing imagery, metaphors, analogies, and symbols. These are more visible in the LSO's programme notes than in the VPO's, the latter of which relies on more analytical and contextual information. Johnson argues imaginative writing stimulates new experiences and understandings of the music:

> A good metaphor can be worth pages of analysis. I once read a text of a work by Bruckner. The author wrote that there's a sort of foreground activity […] but in the background, the music is like stars moving across the night sky: sometimes you look up and see that it's moved a couple of inches. I found that so helpful, not as an intellectual exercise but as a way of feeling something of the emotional tissue of this music. (Johnson, interview, 2020)

Metaphorical language bears the risk of mystifying or romanticising the music, relating back to canonising mechanisms that present the work as removed, transcendent, and ultimately untouchable. Yet, especially here, authors might find archival potentialities that have been rejected or neglected by the more authoritative conventions of musicological writing, and that possibly evoke different images, associations, and connections. Exploring these ways of writing might facilitate access to new experiences and understandings.

To conclude, the tradition of musical analysis – often appearing as 'objective' or 'factual' knowledge – persists but changes its forms. Yet it increasingly stands next to contextual and imaginative writings, which can open up understandings, interpretations, and experiences of the musical works. The latter is more visible in the LSO, where accessibility and inclusivity have led the orchestra to pursue a decrease in musical terminology. Notably, this can clash with the commissioning practice, which leaves this up to external authors. The commissioned authors might have different motivations, ideas, or aims. At the VPO, the homogeneity and consistency of language and writing styles connects to the goal of maintaining a good relationship with the audience, as well as issues of *Bildung* and authority of musical expertise. For both orchestras, it is difficult to break with the well-established routines and traditions of programme note writing for different reasons. This tradition is situated at the intersection of the different internal structures of the ensembles and the backgrounds, experiences, and motivations of external writers.

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72   From the LSO's concert programme of 18 September/9 October, season 2005/06 (p. i). Author: Stephen Johnson.

4.6 Looks matter! Materiality and design

Having focused on the role of programme notes, I will now investigate what role the concrete materialities, designs, and imageries play in how concert programmes actualise orchestral identity and history. At both orchestras, the concert programmes are primarily paper booklets that concertgoers can obtain before or after a concert. While they are embedded in the audiences' routines, they are also crucial in the two organisations' infrastructures, for example, in practices of production, dissemination, storing, and archiving. The booklets are materialisations of these practices, the concerts, and the histories within which they are produced. They physically preserve the aesthetics of the concert event, but also the activities, developments, and histories of the two ensembles. The appearance of the VPO's programmes stands out because of its permanency; the appearance of LSO's programmes is more experimental over time, reaching an important stepstone in the rebranding of the orchestra.

As Dinsdale reflects, the appointment of Sir Simon Rattle as new music director initiated a rebranding of the LSO's visual identity in the season of 2017/18:

> When Simon Rattle became music director in September 2017, we worked with the branding agency The Partners (now Superunion) to create a new visual identity to coincide with this new phase in the orchestra's history. […] The visuals are based on the movements of Rattle conducting the orchestra, using motion-capture data to create a series of animated videos and stills. […] That's why it's called 'Always Moving'. […] We felt that the orchestra was moving to a new era with him as music director, and we wanted to reflect that. (Dinsdale, interview, 2020)

With the help of an external company in the creation of the design, Rattle's movements became part of the fonts, transporting his conducting into the printed material produced by the LSO (Figure 8). This renewal is not simply a fancy rebranding of the LSO's material but suggests a thorough identification of the LSO with its music director. While this can be argued to enact a 'conductor cult' characteristic of the nineteenth and twentieth centuries, the strong presence of Rattle in the concert programmes is not merely a celebration of his appointment at the LSO, but one of the role that this musician has played in British classical music culture and history.[73] The conductor becomes a symbol of national pride, reputation, artistic vision, and quality of the ensemble. The materiality of the concert programme reflects this artistic quality: elements like high-quality images, coordinated colour palettes, and smooth, matte paper – produced with recycled paper and inks in a sustainable printing process – make sure that concertgoers, as Dinsdale explains,

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73   Before leaving for the Berlin Philharmonic Orchestra (BPO) in 2002, Rattle was principal conductor and music director at the City of Birmingham Symphony Orchestra from 1980 to 1998. He left the BPO in 2018 for his appointment at the LSO, which took effect a year before, in 2017. In 2021, Rattle signed a five-year contract as chief conductor of the Bavarian Radio Symphony Orchestra. He will leave the LSO in the season of 2023/24.

This idea of artistic quality goes hand in hand with a revisitation of the orchestra's tradition. The creation and realisation of the 'Always Moving' motto, together with highlighting Rattle as a pioneering artist coming 'home' to the UK and the LSO, illustrate the orchestra as an ensemble with a tradition or history of 'being good' at change and innovation.

Figure 8: Cover of the season-opening concert programme, season 2018/19, introducing the new corporate identity of the LSO. Copyright/courtesy: LSO.

Importantly, and an argument for analysing the programmes' design and materiality, the redesign of the concert programmes has tangible consequences for the content. Especially outside the programme notes, information translates, wherever possible, into images: there are plenty of photos of the orchestra, the individual musicians, and the institution's (educational) programmes and activities, for example, when it comes to LSO St Luke's or LSO Discovery. As Dinsdale describes, visual material can help make the programmes more engaging to a wide range of audience members than text alone could (interview, 2020). For example, the orchestra member list is now a photo series featuring each musicians' portrait picture in order to involve concertgoers in playfully matching the photos with the names (Figure 9). The non-standardised character of the photos makes this list more visually intriguing and more personal.

The redesign also affects the programme notes. While these continue to exist mainly as bodies of text, graphic elements like sidebars or boxes containing additional information complement these texts. As separated information positioned outside of the main text, such features appear as 'optional' or 'extra'. This visual reworking shapes the presentation of content and categorisation of information, and thereby creates hierarchies among different kinds of information. Together with the compartmentalisation of other details – for exam-

ple, the conductor and artist biographies, as well as the composer profile – concertgoers do not have to read one or two bodies of text anymore but are able to browse through the pages and select the bits that they want to read. This resembles how internet users today 'scroll' or 'browse' websites, Rice argues: 'Because of the internet, websites, and such things, the programmes tend to be very visual now as opposed to before. There's always something different going on now. And that's to attract people' (Rice, interview, 2020). The increasing resemblance between the concert programmes and websites might be argued to potentially reduce the ability or need for the audience to engage in in-depth reading.

Figure 9: Excerpt of the musicians' portraits of the first programme booklet of season 2018/19 (p. iv). The musicians' photos can be matched with a list of their names by following the numbers on the left-hand side. Copyright/courtesy: LSO.

Another example of this is the incorporation of URLs into the paper programme. These URLs exist in the paper programme because the concert programmes are uploaded on the website of the LSO as PDFs in order to make them accessible to the concert audience as well as to a more general public. Their part-digital-part-paper existence, however, poses challenges to the archival practices of the orchestra. Rice argues:

> Sure, with paper you can have floods, fires, you can have insects and mice. I keep the archives as safe as I possibly can. But I find the digital material is so flighty, so difficult to keep a handle on. So difficult to keep forever. (Rice, interview, 2020)

Challenges of handling digital material might be further increased by the LSO's experiments with other digital formats and technologies drawing on the functions of traditional concert programmes. The listening guide EnCue, for example, which can be installed on audience members' smartphones, walks listeners through the work in real time. Dinsdale describes that, in addition to internal factors, digital tools such as EnCue challenge the traditional

aesthetic rituals of the concert event, which is why the orchestra chose to introduce this feature for selected performances – in the 'Half Six Fix' concert series, for example, which is less formal in order to attract new audiences. Yet she describes that digital technology 'is becoming so much more part of life, that probably it will start to filter into the normal concert experience more' (interview, 2020). Together with the creation of other print material – such as a magazines and season guides – these new online spaces might also add to the consistency of how concert programmes look like and what they contain.

In turn, the VPO's concert programmes are much less colourful, less visually varied, and less transitory. With help of their simple design, these booklets emphasise the textual contributions of the programme notes and the *Musikblätter*. There are significantly fewer photos, other visual elements, and advertisements; the paper is generally off-white and semi-glossy with black, serif typefaces (Figure 10). In addition, their paper-based materiality – and the general absence of digital versions – provides control over distribution and access that is tailored to the exclusive subscription audience. This further safeguards the insights, traditions, and histories in the programmes.
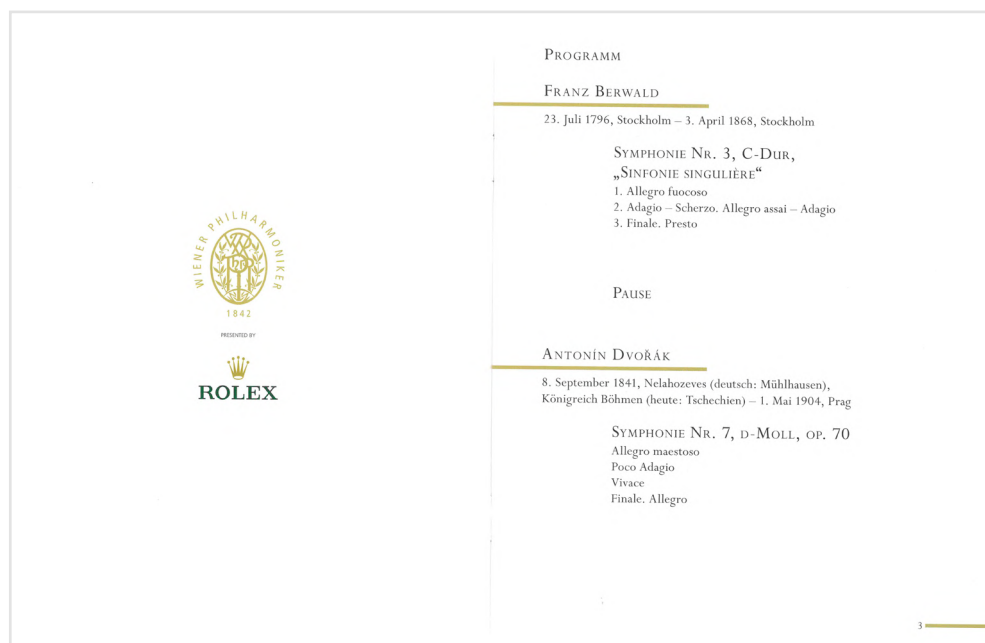
Figure 10: Example of the VPO programme layout, 22 September, season 2018/19 (pp. 2–3). Copyright/courtesy: VPO.

While the VPO concert programmes might be less colourful, crowded, and accessible compared to the LSO, they are not less effective in terms of branding. They enact the orchestra as conservative or traditional, more elegant than contemporary, with a focus on content and history. Notions of luxury and exclusivity are evoked by the few advertisements of main sponsors such as Rolex or Jaguar.

Whereas the LSO booklets' appearance has changed considerably over time, the VPO programmes have barely changed. Next to the content, the material appearance of programmes create and reinforce a long-lasting tradition. This becomes visible, for example, in the inclusion of carefully selected illustrations and photos. While the use of this material helps establish the orchestra's position in the production of new knowledge – and safeguards their cultural relevance in the European classical music landscape – this visual material is carefully curated. As Biba explains, the selection of images and illustrations depends not on visual value, but on the provision of complementary, stand-alone pieces of information (interview, 2020). Images of living and working places, for example, are particularly important because they can help the listeners to discover new connections to the composers, the music, and the city. In turn, he tries to avoid the uncritical inclusion of well-known imagery of composers:

> I am not against portraits [of the composers] in the programme but the thoughtless, automated use of these portraits. [...] The portrait must fit the work. [...] Of course, they should be authentic, but sometimes I use a posthumous, non-authentic portrait if it can explain what is said about the work in the text. Taking Mozart as an example: if the introductory text talks about the work sounding weightless [airy] and sweet, but in fact there is this or that in it – I mean that the work can easily be misunderstood – then a non-authentic, sweet Mozart portrait is helpful. This shows that just as Mozart was misjudged with the production and distribution of this portrait, so was this work. [...] Admittedly, this is not always sustainable, and I have to let my ideals go and make compromises. [...] But in general, this process is easier for me as an archive director, because I have the most diverse material at my disposal.[74] (Biba, interview, 2020)

Biba's position facilitates his aspiration to incorporate portraits that aid a given work's interpretation, leading away from the use of standard composer iconography and opening new insights and connections. At the LSO, standard imagery of composers is a recurring element, fostered by a lack of resources to draw on such archival resources and the programmes' introductory aspiration. In fact, the privilege of choosing from a wealth of archival material is absent for most orchestras. Dinsdale describes that, even if available, archival material is difficult to include because of the restricted space and workflows – which cannot simply be changed or expanded for financial reasons (Dinsdale, interview, 2020).

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74   Original quote: 'Ich bin nicht gegen Portraits [der Komponisten] im Programmheft, sondern gegen die gedankenlose, automatisierte Verwendung dieser Portraits. [...] Das Portrait muss zum Werk passen. [...] Natürlich sollen die verwendeten Portraits authentisch sein, aber manchmal verwende ich ein posthume, nicht authentische Portraits, wenn es das erklären kann, was im Text zum Werk gesagt wird. Am Beispiel Mozart: Wenn im Einführungstext davon die Rede ist, dass dieses Werk schwerelos und lieblich klingt, tatsächlich aber dies und das darinnen steckt – das Werk also leicht verkannt werden kann – dann ist ein nicht-authentisches, liebliches Mozart-Portrait hilfreich. Damit zeige ich: So, wie Mozart mit der Produktion und Verbreitung dieses Portraits verkannt wurde, so wurde dieses Werk verkannt. [...] Freilich ist das nicht immer durchzuhalten, und ich muss auf mein Ideal verzichten und Kompromisse machen. [...] Aber generell ist dieser Prozess für mich als Archivleiter einfacher, weil ich verschiedenartigstes Material zur Verfügung habe.'

The inclusion of archival material in the VPO's programmes also turns the booklets into objects worth keeping. They are meant to be collector's items, as is reflected in their consistent sizing, the seasonal uniformity of the covers, and the serial enumeration of the *Musikblätter* as editions (see Figure 5). The *Musikblätter* and their extra articles play a vital role in this:

> The articles in the *Musikblätter* are meant to be read at home. When I read them at home, I don't throw them in the trash on the way back. [...] In other concert halls, when you leave, you see programmes lying scattered on the floor. That's the most horrible thing I can imagine. That's why I would like to include even more articles in the future in the *Musikblätter*. This would give more incentive to take the programme home to read.[75] (Biba, interview, 2020)

The picture that Biba paints – the booklets left abandoned in the hall, a sign of their ephemerality – is 'horrible' because it indicates that concertgoers have not sufficiently engaged with the programmes and their contents: the programmes have not fulfilled their educational mission. Their extensiveness makes it practically impossible for concertgoers to read them during the concert, so they are designed to be taken home.

In this activity of collecting, materiality is important. Bhesania describes that concertgoers complain when new formats or sizes are introduced because the programmes cease to fit neatly into their shelves (interview, 2020). Also Ridgewell highlights the tactile dimension of collecting:

> I put them on a shelf, and I like to see they're the same size and same covers. [...] But it's more than that. It's the tactile feeling about it, that sense of tradition that's continuing. It's material culture, really. The design element projects something about a feel of history. (Ridgewell, interview, 2020)

The design, then, also transmits the feeling of owning materialised music history. This history connects also to the concertgoers' and musicians' own memories: Froschauer, for example, explains that keeping and revisiting programmes regularly brings back precious memories from his past performances; Rice describes that she regularly receives boxes full of programmes from family members of deceased concertgoers (Rice, interview, 2020; Froschauer, interview, 2020). Through domesticating orchestral history and identity, the practice of collecting might further enhance and support processes of canonisation (cf. Silverstone, 2006; Silverstone & Hirsch, 1992).

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75 Original quote: 'Die Artikel in den Musikblättern sind ja für's Zuhause-Lesen gedacht. Wenn ich das zu Hause lese, dann werfe ich das auf dem Heimweg nicht in den Papierkorb. [...] Man sieht in anderen Konzertsälen beim Rausgehen, überall auf dem Boden liegen die Programmhefte. Das ist das Schrecklichste, was ich mir vorstellen kann. Deshalb würde ich gerne in der Zukunft in den Musikblättern, vielleicht mit noch mehr kurzen Artikeln, noch mehr bieten. Dann gibt es noch mehr Anreiz, das als Lektüre mitzunehmen.'

To conclude, it is important to examine the design and materialities of concert programmes because they intertwine with identities, histories, and traditions of ensembles. In the case of the LSO, they reflect and articulate the orchestra as a contemporary, accessible ensemble that is 'always moving' and driven by its players. The programmes' ephemerality seems to go hand in hand with the experimental development of (or search for) the orchestra's identity, at whose temporary ending stands the 'Always Moving' brand. Importantly, this raises the question whether and how the LSO will (visually) reinvent itself after Rattle's departure. In contrast, the VPO's programmes – through their material consistency and simplicity – reaffirm and maintain the traditional and exclusive identity of the ensemble as well as its aspiration to *Bildung*. These booklets, through various elements, counter ephemerality with longevity; this longevity in turn necessitates the continuous production of new content, as the booklets are meant to be kept and revisited at later points in time. Both cases highlight that the concert programmes' ephemerality – and how they are ephemeral – depends on the two orchestras' institutional settings, identities, and histories.

4.7 Throwing a pebble in the lake

Is there, then, as Rice at the beginning of the chapter described, only so much that concert programmes can do? In this chapter, I have demonstrated how concert programmes materialise how orchestras (re)construct their institutional identities and musical traditions, showing that they do much more than one might initially expect. By examining the concert programmes themselves as well as their production within the two ensembles, I approached these artefacts as sociomaterial agents that are of fundamental importance to how the orchestras both conserve and change their identities, histories, and traditions over time. I first presented a brief history of the developments of the concert programmes of the two orchestras between 1950 and 2019. Based on the empirical material, I deduced and analysed four themes within these developments – audiences, musical expertise, writing and language, and materiality and design – which emerged as particularly relevant to understand the relationship between conservation and change. While the ephemerality of these documents helps enable changes, it does not preclude the permanence of these objects. Instead, their 'ephemerality' operates differently depending on what systems or practices of an institution are particularly obdurate or resilient to change, as well as the conventions and traditions revolving around the artefacts themselves.

The VPO's concert programmes actively safeguard and preserve the orchestra's identity, its traditions, and its history. They enact these elements as long-lasting; of vital importance for the orchestra's identity is its continuing relevance in Viennese musical life, its close connection to the music's history, and the provision of new insights into the music. The programmes also maintain and deepen the orchestra's relationship with the audience, which remains very

stable due to the subscription system. Long-standing conventions in the programmes' production – for example, the involvement of authors attached to the Gesellschaft der Musikfreunde and the orchestra's almost unchanging audience – support the material 'stability' through which these artefacts iterate and confirm the VPO's identity and history. These obduracies, however, also require the concert programmes to change in specific ways: new knowledge of the musical works needs to be continuously provided. In doing so, the programmes necessitate the constant revisiting and actualisation of the VPO's archive. In this process, the recurring emphasis on *Bildung,* which is rooted in nineteenth-century aesthetics – more specifically, the intellectual contemplation of musical works – relates back to these artefacts' traditionally conceived educational functions and uses.

In contrast, the LSO's concert programmes change more rapidly and frequently. While elements like the programme notes or biographies remain firmly in place, others change continuously. This change revolves around the orchestra's increasing recognition of the concert programme as a means to shape and communicate the orchestra's identity in a globalised, precarious cultural landscape. Rather than maintaining a fixed image, the artefacts stimulate the search of and experimentation with the LSO's identity, shifting from the concert event to portraying the orchestra and its musicians to a fluctuating and broad audience. With the establishment of the new visual identity under Rattle's appointment, the orchestra enacts its own tradition as one of pioneership, of departing from the old by 'always moving'. In this respect, the desire of the LSO to foster accessibility is of particular relevance. It feeds back into the seemingly stable elements such as the programme notes, for example, by reducing the use of musical terminology and opening up different interpretations and experiences of the music through writing. Theoretically, aspects like this might lead to a re-evaluation of conventional elements and concert programme traditions such as the role of musical expertise and what it entails. Practically, however, this is not easy due to both the orchestra's institutional division of labour (meaning the commissioning and reprinting system) and broader conventions of programme note writing – both of which can lead to a reproduction of particular interpretations or bodies of knowledge.

How and what these artefacts conserve and change emerges from how the programmes' ephemerality relates to obduracies in both the ensemble's institutional settings as well as broader conventions of programme production. The VPO's concert programmes contest ephemerality, as the orchestra aims to further manifest the longevity of its identity and relevance through the artefacts. The ephemeral nature of these objects therefore does not preclude the possibility of permanence when it comes to their making, uses, and purposes. In contrast, at the LSO the programmes' ephemerality seems, like material culture scholar Judy Attfield (2000) has suggested, to stimulate experimentation and transformation processes regarding the orchestra's identity and traditions. In both cases, the materialities of the concert programmes intimately tie to the orchestras' institutional cultures and identities. This suggests that while ephemerality can provide potential for innovation, this potential

does not solely rest in the supposed material fleetingness of the objects themselves, but in the fact that they have to be constantly revisited, made, and produced: the ongoing production of these artefacts provides ample opportunities for these orchestras to address their relation to the ensemble's contexts and practices. This demonstrates that ephemerality is a practice-dependent quality that might differ between contexts and over time. The sociomaterial outlook of this case study has helped me understand and articulate this.

How do these insights relate to the archive, archival potentiality, and actualisation? Despite conventions and traditions in concert programme making, the case study has illustrated that orchestras have a considerable effect on what these artefacts do and can potentially do. The archival potentiality for these artefacts in relation to classical music is how orchestras might create new ways of communication about the music in connection to themselves through these objects' sociomateriality. This concerns, for example, openings into hitherto unknown orchestral histories and their relation to the music, or an interrogation of the status of musical expertise in concert programme tradition. The institutional contexts and practices of orchestras might add and change the 'archive concert programmes'. While these organisations' structures and practices arguably restrict processes of actualisation of these potentialities – as can be seen with the commissioning system in London, or the small pool of authors in Vienna – they might also present potentialities for the programmes. This has become clear both in Vienna, where the stability of the audience leads to constant renewals of musical knowledge and imagery, and in London, where the commissioning of authors might potentially open up new perspectives and viewpoints. Hence, the obduracy of some elements and practices relates to potentialities for change and renewal in aspects such as orchestral identity and the production of knowledge, yet too many changing actors and practices might lead to a solidification of, for example, particular bodies of knowledge and tradition. Therefore, archival potentiality rests in how the orchestras – and their identities and contexts – use or actualise the sociomateriality (or ephemerality) of the concert programmes differently.

To conclude, while the orchestras navigate change alongside their own, well-established production processes and broader conventions of the concert programmes, small modifications might go a long way. Like a pebble thrown in a lake, orchestras might initiate ripples that touch deeply on the existence of musical works and orchestral tradition and identity over time. Such changes are rarely revolutionary. They can be recognised easily from a retrospective position (when analysing the material over a longer period of time, as I have done) but take a less clear shape in present interactions, debates, and practices. The framework of the archive might help reveal this shape. The case study shows that whatever 'innovation' might mean in the context of concert programmes – I will make an educated guess about this in the conclusion of this book, specifically in section 9.2 – depends on these institutions' identities and their histories, practices, and traditions. From both orchestras it becomes clear that there is a broader shift in the function of concert programmes, from

explaining the music towards performing – in ways that both maintain and renew – the ensembles' identities. Traditional aesthetic ideals might change in this process. And as the LSO and VPO have shown, this does not merely depend on the programmes being able to do only so much; it depends on how much these orchestras *can do* with these objects.

Part II

Classical music streaming apps

5
Heterogeneous ontologies: Classical music in the 'cloud'

5.1 Streaming classical music online

Online streaming is an established cultural practice or activity, yet it has recently broken new ground in the context of classical music. In 2020, the advent of the Covid-19 pandemic dramatically disrupted the cultural sector. As people were tied to their sofas at home, the pandemic catapulted an already prospering streaming industry into a boom. With concert halls, opera houses, and theatres closed all over the world, streaming was suddenly the only opportunity for ensembles and artists to play live concerts to a public. It became an important bridge between musical institutions and their audiences. However, it also required ensembles and artists to learn about hitherto rather unfamiliar technologies, in particular those connected to social media platforms like Twitter, Facebook, or YouTube. While live-streaming was quickly celebrated as a new chapter in the history of classical music, it also raised questions about the post-pandemic future of the art form (Peisner, 2020; Smith, 2020). For example, the new and global reach of live-streaming put into question long-held aesthetic ideals connected to listening in the concert hall and seemed to open up new possibilities for how this music might be experienced by listeners, and where.

Companies like Netflix, Amazon, Apple, Twitch, Disney+, and Spotify have become important platforms for the consumption, distribution, and production of digital content. With their well-established technologies and vast offer of films, series, games, and music, they show that online streaming is not at all a new development. It is not even new to classical music: the Berlin Philharmonic Orchestra (BPO), for example, has streamed live concerts since the launch of their 'Digital Concert Hall' in 2008. By now, fans and audiences of the BPO can watch roughly forty live concerts per season online, or peek into the orchestra's streaming archive, which spans six decades and includes additional content like concert introductions, documentaries, artist portraits, and interviews (Berlin Phil Media GmbH, n.d.). The Digital Concert Hall is considered a pioneering project in the digitisation of classical music and has become a cornerstone of the orchestra's global outreach strategy (Davies, 2019; Roberts, 2004).

Despite the pandemic and projects like the Digital Concert Hall, the number of live-streamed concerts does not compare to the millions of classical records available on music streaming platforms like Spotify: the 'non-live' streaming music market has grown to become the largest revenue source for the global recording industry (Prey, 2020: 2). Just like commercial broadcasting became the seminal infrastructure of the music industry in the twentieth century,

online music streaming platforms have become key to the digital music industry (Bonini & Gandini, 2019: 2). As new media researcher Jeremy W. Morris (2020) claims, services like Spotify belong to the platformisation of cultural production, in which non-transparent algorithms and explicit policies shift economic and managerial strategies (p. 2). On online platforms, 'the display, discovery, search, and consumption of a cultural good all take place through a software search bar and digital database rather than at multiple points in the distribution chain' (Morris, 2020: 3). This affects also various musical cultures, as the platforms bring the agendas and motivations of a range of actors into the same space, resulting in 'a dynamic and always shifting set of relationships and practices' (Ibid.). 'Niche' streaming services are the latest developments in the line of these technologies and media. Services like Qobuz or Tidal offer listeners cutting-edge audio quality streaming; IDAGIO and Primephonic focus on optimising an online space for solely classical music. These platforms seek to attract new audiences, enhance user engagement, and provide education or 'edutainment' to their users (Lee, 2017: 78).[76]

In his books *The Audible Past: Cultural Origins of Sound Reproduction* (2003) and *MP3: The Meaning of a Format* (2012), Jonathan Sterne traces the history of sound reproduction from its beginnings – from the invention of the phonograph, wax cylinders, and shellac phonograph discs to broadcast radio, vinyl, cassettes, and the compact disc – demonstrating how these technologies develop hand in hand with cultural, economic, and social changes and ideals (2003). The introduction of the MP3 format, with its file-sharing capacities, has, Sterne (2012) argues, prompted wider conversations about digital transfer and consumption of music because 'MP3 carries within practical and philosophical understandings of what it means to communicate, what it means to listen or speak, how the mind's ear works, and what it means to make music' (2012: 2).[77] These conversations have resulted in a debate on the nature of music in contemporary culture, 'as process, as practice, as thing' (Sterne, 2012: 185). This contested nature is, as I will show in this chapter, also crucial for discussions about how classical music exists on online streaming platforms.

In this chapter, I aim to set the stage for my empirical investigation into how the two online music streaming services IDAGIO and Primephonic actualise classical music within the context of 'cloud' music streaming (as opposed to live concert streaming). These services might be argued to perform a vast archive of classical music, which they organise and present in particular ways. This makes online streaming platforms a particularly interesting subject of study from the perspective of the theoretical framework of the archive, archival potentiality, and actualisation. While there is plenty of academic literature on various dimensions of 'mainstream' online music streaming, research that focuses on how classical

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76 As Annabelle Lee (2017) notes, music-streaming apps are only one fragment of the classical music app market. Others include instrument (learning) apps, apps to assist reading and annotating scores, apps to compose and to play, and pedagogy apps for children (Lee, 2017: 78–80).

77 Sterne asserts that the mass piracy of music enabled by the MP3 format and file-sharing has been a productive economic force for the industry. Calling into question the social organisation of music, mass piracy, and peer-to-peer file-sharing were path-breaking for what digital and internet media systems operate and look like today (2012: 188).

music exists on streaming platforms is almost non-existent. I respond to this issue by presenting insights from online music streaming scholarship, which seem particularly relevant for what happens with classical music in such digital, online environments. Generally, this research has tended to focus either on streaming as a transformed distribution system that changes social and economic contexts (Eriksson et al., 2019; Morris, 2015; Wikström; 2013; Wikström & DeFillippi, 2016) or on matters of consumption, listening experience, and listening practices (Johansson et al., 2018; Storstein Spilker, 2018). I, however, will consider what streaming scholars have to say about how these platforms enact, present, and organise this music. This concerns particularly the topics of the relationship between mobile technologies and 'everydayness' or ubiquity, the rise of personal archives as well as human and algorithmic curation and recommendation systems, and the question of how the materiality of classical music changes in the cloud.

Classical music challenges the organising principles of mainstream music services. Although companies like Spotify do include a vast amount of classical music, the platforms' infrastructures rely on metadata optimised for pop and rock music. This metadata includes sets containing mainly song title, artist, or album title. In classical music, however, works are reinterpreted continuously, resulting in hundreds of recordings for one work. This can make it difficult to find a specific recording on a mainstream platform. IDAGIO and Primephonic – companies that focus exclusively on classical music streaming – have framed this as a major problem for users and a technological shortcoming. And they are, of course, the problem-solvers: they introduce restructured metadata that allows for the specification not only of the title of a work or the composer, but information like the ensemble, conductor, soloist(s), movement, arrangement, and album(s) (Sisario, 2019). Based on this new metadata, these two companies claim to provide new or alternative ways of organising, navigating, and presenting classical music. These promises need to be taken with a grain of salt, yet these platforms might play an important role in helping this music become (and stay) relevant in potentially new and different ways while guaranteeing hi-res audio quality that connects to the long-standing hi-fi culture in classical music. After all, the services need to balance classical music and its traditions with contemporary technology. How they do so might affect how classical music is produced, presented, consumed, and distributed in the future: on streaming platforms, music exists not only as an art form but also as a commodifiable product.

While online streaming is often analysed with an eye to the present and the future – for example, when it comes to questions about how it might affect and change practices of music making or listening – it is rarely thought of in terms of the past or pastness. Yet, to these services, classical music's aesthetic form – and how this form has been organised until today – is not just 'abstract consideration', as Ben Sisario (2019) puts it. As I will show below, it is through its intimate relation to tradition and long-standing aesthetic ideals that classical music poses unique challenges to streaming services. Patrik Åker (2018) suggests that 'even if music is organized in new ways, these do not necessarily radically break with earlier ways of arranging

music' (p. 84). Classical music still relates intimately to 'past' sound technologies, such as LPs, CDs, or radio, all of which may affect how these streaming platforms perform classical music. Even the pastness of the music itself might play an important role in this performance.

I conclude this chapter by reflecting on how streaming potentially extends classical music ontologically and aesthetically. I propose that streaming classical music online may provide new possibilities and contexts for how this music exists. How these services do so, however, is, as I will elaborate and show in Chapter 6, as much tied to technological and commercial traditions of the streaming services themselves as to canons and traditions of this artform. A set of issues connected particularly to the former – and which plays an important part in how classical music exists on online streaming platforms – will be the focus of the next section: mobility, everydayness, and ubiquity.

5.2 From the concert hall to the smartphone: Mobility, everydayness, and ubiquity

Classical music has travelled from concert halls and living rooms into our pockets – and hence potentially anywhere – since the introduction of the Walkman in the 1980s. Music streaming platforms have made it even more common to access, play, and download music on a range of technological devices, from computers and TVs to tablets and smartphones. In contrast to technologies such as the Walkman or the MP3 player, scholars consider streaming platforms as spaces or environments in themselves (Hagen, 2016a, 2016b). Morris (2020), for example, argues that music platforms are arenas in which producers, labels, artists, and software experts meet and negotiate their agendas and motifs. Sofia Johansson (2018), in turn, thinks of online environments for listening and accessing music as 'significant spaces of the everyday' because they have become an important part in users' daily listening practices (p. 33).

Thanks to the development of digitally compressed audio file formats like MP3, it is possible to listen to music any time and anywhere. Streaming services have facilitated access to music even more through 'the cloud', meaning cloud computing. Sally Wyatt (2004, 2021), however, argues that 'a huge, privately owned technical system is not a fluffy cloud' (2004: 412). In a recent article, in which she critically examines the use and power of metaphorical language in internet and media studies, Wyatt (2021) shows that 'cloud' computing is a metaphor with a distinct history that is coined by tech companies, designers, engineers, and policymakers to establish power. They use metaphors to create sociotechnical imaginaries that advertise the seemingly endless (and profitable) possibilities of the internet, and shape how we describe and think about the future. One aspect of 'cloud computing' today is that users have access to data from multiple devices, sometimes even without necessarily owning the data themselves. Music streaming services, for example, usually work via subscription models: users subscribe to a platform – often, these subscription models include free and paid versions – and gain

access to the data. This mobilises the music because it can travel seamlessly between different technologies and devices. Sterne argues that this mobility is deeply intertwined with the transformation of listening practices: 'Other musical ideals – portability, modularity, malleability, access – have replaced contemplation' (2012: 239). This shift seems particularly consequential for classical music, which has traditionally been enmeshed in stationary listening – for example, in the concert hall or at home. Stationary listening proved particularly well-suited for the aesthetic ideals of attentive or silent contemplation of this music.

This mobility is not new. Mobile music practices, as Sumanth Gopinath and Jason Stanyek (2014a, 2014b) show in their extensive work on mobile music studies, have a long history. Scholars of sound and music technologies have investigated analogue devices like hand-driven record players, battery radios, and car radios, highlighting music as an everyday companion (Bijsterveld, 2010; Douglas, 2004). Researchers of mobile music practices have also examined mobile record players (Weber, 2009), Walkmen (du Gay et al., 2013; Bull, 2001), and the iPod (Bull, 2005, 2007). Such studies have traced the implications of how mobile music technologies bring music to new places. The argument that 'taking music with you when leaving your home, workplace, school, concert venue or studio and entering public space is [...] far from a new practice' is not an exaggeration (Werner, 2018: 147). In his research on how a range of cultural practices – such as recording or the circulation of content – transform through digital music distribution, Hendrik Storstein Spilker (2018) has found that even today, analogue technologies coexist with digital ones, their use dependent on availability, activity, or location.

Scholars of mobile music studies have demonstrated how sound technologies amplified the presence of music in everyday life, and how this helped listeners use the music to regulate themselves and their environments. In her famous book *Music in Everyday Life* (2000), music sociologist Tia DeNora has examined this phenomenon ethnographically, tracing how music helps shape human agency in, for example, karaoke sessions, music therapy, or retail stores. While the role of mobile music technologies is not the focus of her research, these technologies are an important part of how listeners regulate themselves and their moods through music. This is demonstrated for example by Marie Strand Skånland, who examines mobile music technology – the MP3 player – as a coping resource and medium for self-care (2011, 2012). DeNora later extended her argument with the help of an investigation into how listeners use music as a tool for well-being (DeNora, 2013). Issues of self-regulation and control have also been picked up by scholars like John Sloboda (2010), who, based on DeNora's work (2000), conceptualises a number of propositions on the implications of everyday music on listeners' emotional lives – for example, that everyday emotions in music are usually self-referring rather than other-referring, or that everyday emotions in response to music focus more on the listener than the musical work.

Another important issue connected to this everydayness is the privatisation of musical experience. Michael Bull, in his research on iPod culture (2005, 2007), shows how the device enabled users to craft private listening hubs:

> Technologies such as iPods, mobile phones, and automobiles act as tools enabling the urban citizen to move through the chilly spaces of urban culture wrapped in a cocoon of communicative warmth. (Bull, 2007: 18)

Acoustic cocooning is a phenomenon similarly observed by Karin Bijsterveld (2010) in the context of cars, car radios, and interior car sound design. Mack Hagood (2019) has criticised the creation of seemingly 'safe spaces' through the guarded listening made possible by mobile music technologies (which he calls 'orphic media'). By ethnographically examining technologies such as tinnitus maskers, noise-cancelling headphones, or in-ear smart technologies, and with the help of archival research, Hagood shows how listeners mediate self-control by 'fighting sound with sound' (2019: 6). He finds that these technologies have helped increase political and social intolerance by giving listeners the control to remain unaffected in a world in which we should strive to communicate better, helping further separate public and private spheres (2019: 4–5).

Crucially, this academic literature revolves primarily around practices and experiences of listening. This is also the case for scholarship on online music streaming. However, Anja Nylund Hagen claims that 'we know little about how every-day streaming unfolds' (2016a: 227).[78] In her expansive work on streaming practices (2015a, 2015b, 2016a, 2016b, 2020), she explores how Norwegian users integrate streaming services into the experience, planning, and execution of daily life, meaning how the 'cloud' conditions allow streaming to melt into the mundane. Hagen concludes that streaming technologies are 'navigated through distinct, personalised streaming practices' that act as 'extensions of emotional life' and turn the music streaming experience into a 'highly personal and self-referential, as part of self-hood, sociality and everyday way of being' (2016a: 238). These findings are in line with those of DeNora (2000) and indicate that streaming technologies amplify broader cultural trends such as self-regulation and private listening.

Recently, scholars have argued that ubiquity is an important characteristic of online music streaming (Storstein Spilker, 2018; Johansson et al., 2018). The increase of devices and the rise of internet availability have set the scene for a phenomenon called 'ubiquitous listening' (Kassabian 2013, 2015; Quiñones, Kassabian, & Boschi, 2013). Anahid Kassabian (2013) describes 'ubiquitous listening' as a mode in which 'we listen "alongside," or simultaneous with, other activities' (p. 9). She emphasises the potential of this mode of listening for rethinking fields like musicology, popular music studies, and media studies because ubiquitous listening offers new paradigms exceeding narrative or linear listening (2013: xiii–xix). Just like the issue of mobility, ubiquitous listening is relevant in the context of

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78 Many of these online music streaming studies have their home in Scandinavia; this may not be surprising given that Spotify was launched 2008 as a Swedish company. See, for example, Eriksson (2020); Eriksson & Johansson (2017); Eriksson et al. (2019); Hagen (2015a, 2015b, 2016a, 2016b, 2020); Hagen & Lüders (2017); Johansson et al. (2018); Kjus (2016); Leijonhufvud (2018); Liikkanen & Åman (2016); Maasø (2018); Maasø & Hagen (2020); Olsen, (2017); Storstein-Spilker (2018); Werner (2015); Werner & Johansson (2016); Wikström (2013).

classical music because it seems to contradict the intellectual engagement and silent con-templation attached to classical music. Throughout its history, proponents of classical music have framed inattention as the enemy, hindering a thorough enjoyment and understanding of this type of music (cf. Adorno, 1962/1976). Kassabian, however, argues that the relation between ubiquitous listening and attention is far from clear: just because music has become ubiquitous does not mean that listeners are inattentive to it (2013: 9–10). Her criticism is supported by Hagen, who observes that its connection to the mundane does not mean that listening experience cannot be profound:

> Importantly, music is no less important because it is taken for granted. On the contrary, I claim that the flexible applicability and multiple uses of the streaming technology (which afford this taken-for-granted position) rather enhance music's role in people's everyday life. (2016a: 239–240)

In regard to classical music, this argument may point to a shift in this music's role in listeners' lives as it moves into the mundane. Yet such studies focus on the users' experiences of and prac-tices with streaming technologies, rather than how this affects the presentation of the music.

In the second volume of their *Oxford Handbook of Mobile Music Studies* (2014b), Gopinath and Stanyek rethink the relationship between music and everydayness from an aesthetic perspective. They reconceptualise the act of listening to, ordering, and organising mobile music as 'mobile performance'. With this concept, they attempt to coin a new mobile music aesthetics that dissolves the binary between art and the everyday hitherto implicit in the field (2014b: 25–27). In this new mobile music aesthetics – which the authors charac-terise by the presence of mobility or the capability of movement – the relationship between human and non-human is crucial, because only together can they engage in musical or sonic performance (Ibid.). Mobile performance 'blurs the boundary between use value and aesthetic value', placing aesthetic judgement into the realm of everyday decision-making (Gopinath & Stanyek, 2014b: 26). This concept enables Gopinath and Stanyek to recall a notion of art prior to its reification as an autonomous form, a recall to a point in history where art played a primarily social role (2014b: 30). They argue that

> perpetual and omnipresent access to music and sound seemingly paradoxically creates unique, meaningful experiences and creative opportunities accessible in an ever-increas-ing array of places and spaces at increasingly differentiated points in time. If one result of mobile music's anytime, anywhere status is the production of new genres of art, the other is a suffusing of everyday life with a different and new kind of aestheticization: life is absorbed into art but art is also absorbed – as capacity – into life. (2014b: 32)

The result of these mobile aesthetics might well be 'to raise the possibility of canonical per-

formances in the everyday, as well as to problematize self-evident canonicity in sanctioned performance' (Gopinath & Stanyek, 2014b: 5). As new mobile devices and technologies catalyse the intersection of art and the everyday, new aesthetic musical forms, genres, and possibly canons emerge – and old ones might be contested.

Classical music has become increasingly present in everyday life. No matter if we listen in the bathtub, in the train or bus, or during work – these mobile performances bring new meanings and understandings to the music, potentially expanding the traditional aesthetics of classical music. While this can be argued for all mobile music technologies, one characteristic that sets streaming platforms apart from previous technologies is the sheer abundance of music that these services offer via a few clicks. As I will show in the next section, this musical abundance is key to how streaming platforms provide the access to, organisation of, and presentation of classical music. Yet they need to manage this abundance – for example, through mechanisms for curating taste, personalisation, and discovery.

5.3 Dealing with abundance: Curating taste, personalising the archive, directing discovery

Music streaming platforms offer a seemingly endless catalogue of all kinds of musical genres, presented as an asset to attract users. Kieran Fenby-Hulse (2016) claims that with online music streaming platforms and their subscription models, the music industry has succumbed to a new, 'intense kind of archive fever' (p. 175, cf. Derrida, 1995). Connected to this and building on the work of media studies pioneer Lev Manovich, Åker (2018) proposes that music streaming platforms fall between digital database and archive. While digital databases entail unstructured information and focus on providing immediate access to this data, Åker claims that 'the database can be turned into an archive when the data is classified, sorted, and presented to the user according to certain principles' (2018: 84). This is what happens on streaming services: they present various strategies and mechanisms that order their catalogue. Take, for example, curated playlists, the possibility to create personal collections, or algorithmic recommendation systems.[79] In this section, I present what the music streaming literature has to say about these features, and what this might mean for classical music.

Playlists occupy an important role on online music streaming platforms. Maria Eriksson argues that playlists create order on online streaming platforms (2020). She approaches editorial playlists – meaning playlists operated by the streaming services themselves, or third-party brands – as container technologies that assemble, control, preserve, and trans-

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[79] Notably, mechanisms such as curation, personalisation, algorithmic recommendation, and discovery systems are not unique to music-streaming platforms; they are part of other digital content platforms, too, further hinting at the path dependencies alongside which this technology has been developed. Path dependency is a concept in the social sciences which helps to investigate how past events, decisions, and structures or patterns affect and constrain later developments, events, and decisions-making processes (cf. MacKenzie & Wajcman 1999; De Munck, 2022).

port musical files, paying attention to how they enforce the retail logics of the digital music economy (pp. 415–416). Other media scholars have examined the ways in which Spotify playlists enact cultural power: Morris and Devon Powers (2015) show how Spotify's playlists blend promotion and distribution of the music by branding musical experience – for example, through mood-based playlists (p. 12). These playlists push the presentation of music as an affective experience and amplify the importance of consumer taste. Luis Aguiar and Joel Waldfogel (2018) observe this cultural power also in the success of artists depending on the playlists in which they are featured. They further investigate playlists in their promotional power and the discovery of music. Last but not least, playlists have been recognised as important tools for self-regulation and self-enhancement, as they help listeners manipulate their emotions, moods, and affective agency (Siles et al., 2019; Karakayali & Alpertan, 2021).

Playlists can be created by human editors and users, by companies and businesses, or algorithmically (Prey, 2020). While algorithms are of course human creations, I use the distinction between algorithms and humans to pragmatically differentiate between machine- or automatically generated playlists and those made by human actors such as experts, editors, and users. The blurriness of these lines is also addressed by Tiziano Bonini and Alessandro Gandini (2019), who suggest that the relationship between algorithms and humans in making playlists has led to new forms of gatekeeping, as it has replaced 'human intermediaries such as radio programmers, journalists, and experts' (2019: 3–4). This human-algorithmic relationship is connected to a curatorial turn in online music streaming from 2014 onwards, when new curated features on Spotify made waves across the music streaming sector (Bonini & Gardini, 2019: 3). This curatorial turn is key also to how classical music exists on the streaming platforms that I investigate in the next chapter. Bonini and Gandini (2019) define curation as the process of deciding, filtering, and selecting what listeners are exposed to. Emília Barna (2017) specifies that 'curation clearly involves […] principles of distinction and value judgement – telling "good" from "bad," exciting, novel or trendy from mediocre or outdated, "real art" and "value" from the "vulgar"'. This is how curation shapes musical taste (Barna, 2017). Barna claims that – as many services use this term openly – curation has succumbed to becoming a marketing term and perpetuates an image of passive listening.

Robert Prey notes that 'playlists are a key mechanism through which to exert […] "curatorial power": the capacity to advance one's interests, and affect the interests of others, through the organizing and programming of content' (2020: 3). In this process, curation transforms this content (Prey, 2020: 8). One example of this is the reassembling of tracks from albums into playlists, reframing and possibly 'detaching' them from their original context or narrative. Curatorial power might therefore not only shape musical interest and taste but potentially affect how users access and understand this music. In this way, curation can result in both a homogenisation and a diversification in taste. Complementary to this, Hagen (2015b) highlights the capacity of listeners to become curators themselves by generating their own playlists, concluding that 'the participating listener thereby plays a role equally important as

the role of the medium in the storage, processing, and transmission of information' (pp. 643–644). In curating a playlist, the user actively participates in reorganising musical content.

With the function of accessing, saving, sharing, and creating playlists, online music streaming services follow a longer path in the history of digital music. Fenby-Hulse (2016) shows how online streaming draws on cassette mixtape imagery, with the playlist becoming 'the next generation mixtape' (p. 174). He suggests, however, that playlists on online streaming platforms revolve more around activity-based listening than the traditional cassette mixtape, which revolved primarily around a shared social experience (2016: 180). Bas Jansen (2009) draws a contrast between creating mixtapes and making playlists, arguing that the playlist requires considerably less effort and is also less evocative in terms of autobiographical memories. Jörgen Skåkeby (2011) conceptualises mixtapes as slow and digital playlists as fast media objects, emphasising that users attach different values and social uses to the respective technologies. For example, whereas the mixtape relates to social bonding, exchanging value by trading tapes, or the aesthetic dimensions of the cassette as a material object, playlisting connects to values such as replicability, searchability, and remixability.

Classical music has largely remained outside of traditional cassette mixtape practices, which drew from pop, rock, and punk cultures. The organisation of recorded classical music has consisted mostly of recordings for albums. On music streaming platforms, however, classical music is regularly assembled into playlists and therefore reordered by users, curators, and algorithms. While this has happened in other mobile music technologies, online streaming enhances the pace and effortlessness of this process. As I will show in Chapter 6, in these playlists, it is common for the musical work, with its linear movements, to be 'broken up' and reassembled alongside themes or activities, causing a disruption of the traditional aesthetics of classical music which might result in a recontextualisation of this music.

Albums, however, still occupy an important position in the digital music industry and on online streaming platforms. Åker (2018) describes that

> albums, artists, and their back catalogues are still salient content on Spotify, and as a visual milieu there is a heavy focus of album covers and pictures of the artists, which follows the history of packaging recorded music from the '50s onward. (p. 97)

He suggests that albums and their covers have shaped both the auditory and visual experience users make on online music streaming platforms; for example, these services attempt to evoke the image of the traditional record store. Instead of observing a general decline in the relevance of albums, Åker argues that there are differences in analogue and digital online 'album culture', since 'old media (in this case the album form) is the content of the new media (the digital music platform' (2018: 89). Yet the album remains important for the hierarchisation of content; it connects users to the history of recorded formats, as the platforms historicise music in distinct ways (Johansson, Werner, Åker, & Goldenzwaig, 2018: 166). Yet Åker notes that while albums are

crucial for the hierarchisation and organisation of musical content, the tension created by the need to choose between albums and individual songs is 'expressed on almost every page', having become a characteristic of online music streaming platforms (2018: 100).

Albums are key to how music – also classical music – is organised and made accessible by and on online music streaming platforms. Fenby-Hulse (2016) asks how streaming technologies can move beyond a music archive filled with albums and playlists, arguing that these platforms' current forms of engagement and interaction are limited (2016: 183). He demands platforms reconsider how they perform music archives (2016: 183–184). Yet these archives are not as fixed as they might seem: classifications are generative, fluid, and instant (Åker, 2018: 84). Content is constantly rearranged and performed with the help of algorithms that adapt to users' behaviours and preferences in order to increase consumption (Åker, 2018: 84). That way, the users' interactions become an important tool to organise and present the content of this archive:

> Making the users' activities central to the business strategy is also how the database is turned into an archive – it comes to be sorted and arranged in certain ways that cause Spotify to cease being merely a collection of music files. (Åker, 2018: 85)

Åker concludes that online music platforms are archives that revolve around 'rearranging and presenting recorded music as answers and solutions to our musical preferences' (2018: 102). Anthony Cushing (2016) highlights that users 'vote for canonisation with their ears and mouse clicks' (p. 219). As streaming platforms collate, analyse, and process user interactions with the help of algorithms, online streaming platforms become crucial to canon formation. In mainstream music services such as Spotify, this has resulted in the manipulation of the system by so-called streaming or click bots. These bots are programmes that pretend to be human users in order to stream songs repeatedly to increase the visibility of certain musical pieces or artists on a platform (Drott, 2020; Snickars & Mähler, 2018). While illegal on many online music streaming services, practically anyone can buy a bot to push engagement with a given artist or song to direct the algorithm in a specific direction.

Yet these platforms pride themselves on how they enable the discovery of new music through algorithmic recommendation systems, attempting to make the 'celestial jukebox' foretold in the mid-2000s a reality (McCourt & Zuberi, 2016; see also Burkhart & McCourt, 2004, 2016). The idea that such technological developments facilitate musical discovery or the sharing of musical knowledge, assumes, as Johansson (2018) suggests, a direct link between increased availability and the reception of 'unknown' music (p. 37). While making clear that the notion of music discovery itself is far from straightforward, she highlights that the 'tendency towards closing in on pre-existing preferences' – which is caused by musical abundance in combination with algorithmic advice – significantly hinders exploration on music streaming platforms (2018: 48). Her empirical research finds that users fall back on what they know rather than engage with unknown music.

A wealth of literature focuses on the role of algorithms on streaming platforms in processes of musical discovery. Emanuele Arielli (2018) describes how online platforms are based on predetermined classification and categorisation systems, feeding and being fed by – among other aspects – algorithms. These algorithms aim to increase music consumption by offering recommendations to the users, but they are far from transparent (p.79). In what he calls 'aesthetics of algorithmic culture', the platforms aim to optimise consumption and presentation:

> With the rise of the algorithmic analysis of our aesthetic behavior, less and less is left to chance, and those imponderable levers become computable factors that are used to optimize the cultural products to which we are exposed. (2018: 93)

Because the algorithms' purpose is to maximise engagement by confirming rather than diversifying the user preferences, Arielli (2018) suggests they trap users in bubbles of personal preference. In line with Johansson's (2018) findings, Arielli observes that taste and preference are undergoing a process of homogenisation rather than diversification (2018). Despite the companies' promises to all-encompassing access, Jack Webster (2020) examines how this development lends itself to the reinforcement of class divisions and social distinction on these platforms: by approaching taste from the perspective of cultural capital, he finds that platforms have created economic and social prestige for actors already established as cultural intermediaries, such as music critics (p. 1922). Connected to this, the cultivation of taste increasingly detaches from the users' class contexts, such as friend networks and broadcast media. Maria Eriksson and Anna Johansson (2017) state that while recommendation systems can evoke individual flexibilities, this process of individuation is marked by 'normative temporalities, neoliberal subjectivities, functional approaches to music, and monetizations of intimacy' (p. 67). Yngvar Kjus (2016) argues that both automated algorithms and human curation are key devices for exploration, yet he observes discrepancies between the promises and the reality of streamed-music discovery. In an empirical study on Norwegian streaming users, he concludes that most music discoveries do not happen through in-service features, but by the help of acquaintances and friends, media, and attending live performances (2016: 135). This points back to practices of mixtape culture, and is connected to the criticisms on the lack or limits of sharing functions on such platforms (Johansson et al., 2018; Storstein Spilker, 2018).

Online music streaming platforms give rise to the formation and establishment of individuated, private, and algorithm-led canons and repertoires in everyday life. Developed mainly alongside commercial interests, algorithms foster and cultivate preference bubbles instead of enabling new forms of exploration and discovery. Gregory Steirer (2014) warns that, in the face of profit-driven algorithm automatics, even the ability of users to organise their personal 'collections' online might decrease (p. 86). Platform culture bears significant consequences for practices of collecting, as well as the materiality and ownership of digital music. These aspects are the focus of the next section.

5.4 Cloud materiality and collecting

How do the materiality of music and practices of collecting change in the online realm? This question has been asked by many media and music scholars, including Tom McCourt (2005). Even before the advent of cloud computing and online streaming, he argued that

> through their immateriality, digital files cannot contain their own history. Unless they are burned onto a CD, they have no physical manifestation. No history is encoded on their surfaces, since they have no surfaces. If a digital product is enshrined in a physical form, like an LP or CD, it is regarded as being valuable. When a product is delivered in a string of bits, rather than presenting itself in a physical form, it appears to have less value. (McCourt, 2005, p. 250)

With the rise of the MP3 file format, the potential dematerialisation of music became a fiercely discussed subject among music lovers, software developers, and scholars. To McCourt, the transition from analogue music media to digital files marked a transition from cultural goods to a world of cultural services. He prognosed that how online services operate would become more important than the product itself (2005: 251). The author concluded that 'the digital commodity is refigured continuously, emblematic of the ability of capitalism to endlessly reinvent itself' (2005: 252). He feared that the digitality of music would result in a whole new level of commodifying musical experience.

McCourt's outlook proved valid on many points – such as the increasing commodification of music and a shift towards service provision – yet his account on dematerialisation is a simplification. Sterne (2012) suggests that the distinction between analogue and digital was never clear to begin with, interrogating the substance of music's 'thingness' (2012: 186–197). Music became a 'thing' in the context of the recording industry and its distinct commodification processes, allowing it to be objectified by being packaged 'into units that can be owned, sold, or loaned' (2012: 190). He argues that digital data, such as an MP3 file, remain a thing 'but in a special way', a container for containers of sound (2012: 194). Previous musical forms, such as recordings, were written into the very code of this format; this helped preserve not only music's status as a commodity but a whole media system (2012: 197–198). Analogue and digital, Sterne proposes, were and still are deeply intertwined.

Paolo Magaudda (2011) claims that discussions of 'dematerialisation' are not unique to music but relate to broader developments of digitisation (2011: 16). Proponents of the argument of dematerialisation, he suggests, draw on a form of technological determinism that overstates the effect of new technologies in society and is likely to dismiss the social embeddedness and malleability of technology (2011: 18–19). In his empirical work, he observes that digital music is connected to practices 'deeply rooted in an embodied set of activities and social relationships inscribed and hardwired into the design of material artefacts' (Magaudda,

2011: 32). In fact, he finds that material objects become increasingly relevant in users' listening and consumption practices. This does not make digital music less meaningful:

> The changes in music consumption generated by the process of digitalization have not led to the dematerialization of consumption and to the disappearance of material objects, but have rather generated forms of 're-materialization' – the re-articulation of the relationships among materiality, cultural meanings and people's pragmatic activities. (Magaudda, 2011: 31)

His insights echo arguments presented previously in this chapter in the context of mobile music studies and ubiquity, where the technologies made it possible for music to acquire renewed meanings and contexts in users' everyday lives because of its mobility.

Henrik Bødker (2004) argues that the rise of digital formats transforms and recontextualises music rather than 'dematerialising' it. Bødker argues that binary information is as material as traces on a tape – even though it might not be experienced as such by listeners (2004: 12). He observes an amalgamation of different materialities that add to already existing musical technologies (2004: 14). While acknowledging that these materialities may increase the burden of choice on the listener, Bødker emphasises the potential for the emergence of new musical meanings through changing and intersecting materialities (2004: 16–17). This, Bødker concludes, could open up new modes of 'aesthetic agency' (2004: 20). This burden of choice, however, is debatable: applications are usually optimised for smartphones, tablets, and computers, raising the question of how diverse and manifold these materialities can actually be. Morris, in turn, highlights that music's digital form also matters for production practices, where it enables the emergence of new metadata and material infrastructures (2020); these are crucial 'to give digital music the context necessary for collecting it, using it, and interacting with it' (Morris, 2012: 863).

Rebecca Mardon and Russell Belk (2018) provide a range of interpretations of 'digital materiality'. They argue that digital materiality includes the materiality of digital technologies and storage media as well as the materiality of code itself (Mardon & Belk, 2018: 546). Like Bødker, they propose that much can be gained by approaching digital data as a material substance. Code, they suggest, is non-rivalrous (meaning that using it does not typically affect simultaneous use by others) as well as infinitely replicable (meaning that it can be copied without limits and cost) (Ibid.). Yet they emphasise the importance of objects in this digital materiality, arguing that digital objects can only be accessed, experienced, and consumed through the combination of digital files with tangible objects (2018: 546). The material networks in which this data exists render the question of materiality in online music streaming ever more complex and unfinished. Hagen (2016a), for example, describes how

> service providers transfer service-hosted content from the cloud to users via broadband Internet connections. This makes the music available without the need to download the

Classical music has existed as both analogue and digital media for a long time now. Yet how online streaming services materialise this music digitally might open up new practices of how this music can be collected. Streaming platforms compete with analogue collections and the practices organised around them: living rooms with shelves full of vinyl records and CDs, carefully selected and assembled over years of browsing in record stores; objects that age and deteriorate, that can be found, gifted, received, inherited, damaged, and touched. Bødker (2004) argues that scarcity is crucial to collecting: collecting depends 'on not having something at the expense of having something else' (p. 21). Value is created through rarity or scarcity. In contrast, on online music streaming platforms, an abundance of music is accessible at all times, in a permanent now.

That does not mean, however, that music cannot be collected anymore. Rather, it requires different activities and skills that might expand the practice of collecting:

The value of knowing about and the ability to find a rare edition in a second hand store might thus be supplemented with the ability to find your ways around an expanding network of internet-based knowledge and availability. (Bødker, 2004: 22)

Sterne (2012) has observed that for as long as they have existed, MP3 files have been collected, bought, and shared by users, who discuss these files in terms of possession and 'things' (p. 214). He finds that the file format has helped music collections become increasingly distributed and mobile (2012: 230–231). Collecting again changes on online streaming platforms, as the music is distributed and materialised fluidly. Bødker assumes that this will result in music collections increasingly focusing on delivering 'the right music for the "right" occasion and time' (2004: 23). Moreover, with their subscription-based access, streaming platforms do not allow users to own the files. This means that rather than buying, sharing, or pirating data, users register to the service to gain access to the music, which is licenced by the respective platforms. This access persists for as long as users pay for the service. Although music can be downloaded to listen offline, users are not able to listen without the app (Arditi, 2017). Steirer (2014) claims that this business model 'represents a victory of industry interests over those of collectors' (p. 80).

Lee Marshall (2014) fears that as online music streaming platforms shake up practices of collecting, this practice might become obsolete. To him, these platforms disrupt

the three main elements of collecting: ordering, owning, and desiring (2014: 68–71). While Marshall (2015) acknowledges that ordering is possible on many services, this activity is shaped by a ready-made system that prescribes and prohibits certain usage and leaves little space for individual modifications. More importantly, 'the most important element of ordering – the discrimination involved in determining what is and is not included in a collection – is nullified: everything is included' (Marshall, 2014: 68). The absence of ownership further leads Marshall to question whether and how a sense of intimacy can be created in online streaming, as he views the act of acquiring and owning as necessary to create a relationship between subject and object. Last, in this 'post-scarcity world', 'desiring also fades away in the cloud' (Marshall, 2014: 69). The disappearance of desire is, however, not only connected to the disappearance of scarcity: Marshall also observes that the lack of having to invest time-consuming labour and effort to acquire an item takes away intrinsic rewards. Scouting, planning, craving, and desiring can be pleasurable in themselves. Despite these arguments, the author recognises that 'perhaps criticisms like that […] are merely nostalgic, reminiscent of the public proclamations about the declining importance of music when the CD was introduced in the 1980s' (2014: 70). He acknowledges that online streaming platforms afford complementary and new forms of organising and experiencing music, with delivery systems continuing to make content accessible in frictionless ways (Marshall, 2014: 71).

Mardon and Belk (2018) agree with Marshall's view that digital and online collecting does not share the same pleasures ordinarily found in analogue collecting. They reflect on what a pleasurable collecting experience might look like in the context of 'digital consumption objects' (p. 544). The authors pinpoint two challenges: the lack of object elusiveness – caused by the music's ubiquity and abundance – and the question of authenticity of the object, meaning the irreplaceability and uniqueness of an object (pp. 550–556). In their article, Mardon and Belk show how online platforms could materialise features of collecting connected to elusiveness and authenticity. For example, they refer to attributes like 'digital patina' – which marks digital possessions as unique and distinct from other copies and simulates them ageing – artificial scarcity, or limited modes of object circulation between users (p. 560). Rather than proposing to return to analogue ways of collecting in the digital realm, the authors use these features to demonstrate that how companies choose to materialise digital objects is by no means given or 'natural'. For example, while the focus of design 'is often on efficiency and usability', these companies could also 'design digital objects in ways that support relationships, memories, reflection and the formation of emotional bonds' (Mardon & Belk, 2018: 563). This argument helps them shift focus to the role that these companies play in materialising these contents; specifically, they argue that it is necessary to extend this focus to the 'pre-objectification' phase, in which the form of digital consumption objects is still in a particularly open stage (2018: 561). The abilities and choices of companies, the authors conclude, have been neglected and underestimated.

In the next and last section of this chapter, I will reflect on the role that online music streaming platforms – with their vast archives and their strategies of order and organisation – play in how classical music exists online. In doing so, I will also discuss their potential in extending this music ontologically and aesthetically.

5.5 Heterogeneous ontologies – new aesthetic traditions?

In this chapter, I have outlined themes in online music streaming literature that are highly relevant for classical music: from issues of mobility, everydayness, and ubiquity to questions of human and algorithmic curation, discovery, digital materiality, and practices of collecting. In all these topics, notions and practices revolving around the digitality of music connect to earlier – analogue – ways of organising and distributing music. Still, these online environments challenge the traditional aesthetics that are so characteristic to classical music – for example, stationary listening inside the concert hall, listening to a work as the composer intended, or browsing shelves in a record store. Of course, classical music has existed digitally and online for decades; its digital form is already part of people's online habits and practices. Online streaming platforms continue this existence, yet they might raise new opportunities for this music's cultural and societal significance. If we believe that classical music's relevance today is contested – as the undying narrative of declining and ageing concert audiences asserts – then these online platforms may play an important role in helping this music become (and stay) important in potentially new or different ways.

One reason to believe so is the increasing complexity in which music exists online, as sociologists Raphaël Nowak and Andrew Whelan (2016) suggest. The authors argue that

> digital music continues the epistemological and discursive approaches to music associated with prior formats and the standard emphasis on the recording as an inert 'thing'. Yet the scale of the digital adds layers of complexity and uncertainty with respect to how it is to be framed. (2016: 128)

Digital music is 'prismatic' and 'ontologically undetermined' in a 'productive way' (Nowak & Whelan, 2016: 125–126). Hence, digital music cannot be understood to exist or persist in just one way or another; there is no definitive answer to what digital music is. Also Mardon and Belk (2018) highlight that given the heterogeneity of its existence, it is problematic and unhelpful to seek a definitive ontology of digital objects (p. 547). This heterogeneity is a practical and aesthetic issue for classical music. Increasingly extensive metadata, codes, interfaces, software, and hardware devices all shape this music – it does not exist autonomously from the means of its production and transmission (Nowak & Whelan, 2016: 127).

Hence, instead of seeking a definitive ontology of digital music, music streaming might be argued to potentially expand how this music exists, both offline and online. These services do something to and with the idealist aesthetics engrained in classical music – visible for example in practices of attentive listening in the concert hall – by constantly reperforming and recontextualising it in everyday life as a digital object, alongside their own logics and features. What, for example, happens to the idea of an autonomous artwork in this online environment, given that hundreds of interpretations can be accessed in only a few clicks? What role do certain features – such as albums or playlists – play in the presentation of classical music? How do the platforms order and navigate classical music, and how do these new systems of order relate to, for example, musical experience or ideas of discovery?

Such questions also open up the idea that online streaming services might be able to shape a new or complementary online aesthetic tradition of this music. This is a particularly interesting question for streaming services focusing exclusively on classical music, as these combine well-established online streaming techniques and technologies with the aesthetic conventions attached to this music. While scholars have thoroughly examined how bigger online streaming platforms might affect user experience and consumption, it is still unclear how such services enact, change, and embed classical musical ontologies. This question might not have a definitive answer, considering that change and flux are characteristic of these technologies – a fact also commented on by Susanna Leijonhufvud (2018), who, in the beginning of her doctoral thesis on Spotify streaming, ushered the fitting warning: 'By the time you read this, things have already changed!' Taking into account these rapidly changing technologies and systems, it might be insightful to see what aspects of this music and how it is organised remain salient, as this can provide more clues on how these platforms build on and relate to classical music's traditions and aesthetics.

The idea of a constantly changing, yet path-dependent ontological heterogeneity of digital music – intertwined with constantly changing technologies – becomes particularly significant for classical music when considering the theoretical framework of the archive. Online streaming platforms incorporate literal archives of classical music. Yet they also actualise them – for example, in how they make accessible, present, organise, and structure this archive with the help of the mechanisms and strategies presented in this chapter. Compared to the first case study on concert programmes, in which the actualisation of classical music was deeply intertwined with institutional or orchestral histories and identity, here the question emerges what of this archive these streaming platforms precisely actualise and how so. Different potentialities and mechanisms for actualisation might be found in these digital archives. Instead of seeking a definitive ontology of digital classical music, the framework of the archive might help understand how this ontology is shaped by evolving archival potentialities and their actualisations. The intersection of the tradition of this music with fast-paced streaming technologies results in a unique, fast-changing archive – therefore, online streaming platforms might also entail broader insights into how archives operate digitally and online.

In short, the existence of classical music on online streaming platforms raises questions not only for how this music is experienced and consumed by listeners and users, but for how these companies produce and actualise its archives. Yet at the horizon of classical music streaming technologies lingers a large and powerful industry, in which processes of commodification shape technology and music. Nowak and Whelan disappointedly ascertain that such streaming platforms enact music 'in a kind of market-curatorial orientation that reveals quite a specific (quite Western) understanding of what is to happen with the music' (2016: 129). They point to the consequences of these commodification processes, like a lack of compensation for creative labour, contested intellectual property rights, the rise of corporate surveillance, changing patterns of consumption, and the unclear role of online communities. This leads them to the conclusion that 'there are potentials to music that are lost here', making clear that the archive, including its potentialities and the ways in which they are actualised by the platforms, are shaped by privatised companies with their own agendas (Ibid.). Also Johansson and Werner (2018) argue

> there are […] uncertainties regarding the consequences of music as a digital commodity; how music is valued, stored, accessed, and re-contextualized, but also, importantly, how music listening increasingly becomes integrated with computational and automated processes, tied to specific companies and services that grant access but not ownership. (2018: 19)

While processes of commodification are not the focus of my empirical case study, they undoubtedly play an important role in understanding the forms and operations of online music streaming platforms today and, potentially, in the future. Nowak and Whelan suggest that, as music is a way of organising and articulating the social, 'talking about digital music […] is a way of talking about the future, and more specifically talking about what building a future worth having would entail' (2016: 129). While the authors refer to the social dimensions of the production, consumption, and engagement with this music, I would add that this is an equally valid question for the future of the music as artistic heritage in our society and culture.

In the following chapter, I will examine two music streaming platforms or services focusing on classical music: IDAGIO and Primephonic. Inspired by the themes of this chapter, I will ask how these platforms actualise their digital archive of classical music, interrogating the potentialities and processes of actualisation enacted by the respective companies.

6

Nothing new, nothing old? Organising and navigating classical music on the online streaming services IDAGIO and Primephonic

6.1 New medium, old message?

When I sit on the bus on my way to work, I like to listen to classical music. I usually do so via a streaming app on my smartphone. In 2018, at the start of my PhD project, I discovered IDAGIO and Primephonic, two digital streaming services tailored exclusively to classical music. Being new to the world of classical music from a professional perspective, these apps seemed like an entry point to the art form – with their vast archives, curated playlists, radios, mood players, recommendations, and elaborate search infrastructures.

Like many music streaming services, IDAGIO and Primephonic are (or were, in the case of Primephonic) available to download as apps for mobile devices. Both companies are start-ups. Founded in Berlin by music manager Till Janczukowicz and streaming expert Christoph Lange in 2015, IDAGIO's streaming app entered European app stores that same year. In September 2018, after the company received major funds from external investors, IDAGIO became available to the US and Canada ('Classical Music Service IDAGIO', 2018). The service counts users in as many as 160 countries – prominent exceptions are mainland China and Hong Kong – with roughly 1.6 million app downloads and two million available tracks in 2022 (Gable, 2023b; IDAGIO, 'About', n.d.). Primephonic's history tells a similar story. Founded in 2014 as a Dutch-American company by Veronica Neo, Simon Eder, Thomas Steffens, and Dirk Jan Vinkin, the app launched in June 2017. In August 2018, an updated version was released to users in the US, the UK, and the Netherlands. Primephonic was available in 154 countries, and contained 3.5 million tracks (Primephonic, 2020). In August 2021, Primephonic was bought by Apple; Apple intended to launch its own classical music streaming service. Merely a few weeks later, Primephonic was removed from app stores. Information on the number of their active subscribers is and was unavailable.

The reason for developing and launching classical music streaming apps, when much of their content is available on conventional music streaming services such as Spotify, is, as IDAGIO has proclaimed on its website, 'driven by the mission to build the world's best streaming service for classical music lovers' to provide 'the specialized service that lovers of this genre want and need. Something that they can't and won't get at Spotify, Apple Music

or YouTube' (IDAGIO, Careers, 2020). Both services presented mainstream music platforms as insufficiently equipped for classical music; Primephonic, for example, proudly declared itself as 'a streaming service that gets classical right' (Primephonic, 2020). In addition, former Chief Commercial Officer Maarten Hoekstra stressed Primephonic's potential for exploration of the art form as well as for getting 'new generations to embrace classical music' (interview, 2020). The services' efforts to 'get classical right' consisted, according to both IDAGIO and Primephonic, of presenting users with a vast archive of exclusively classical music that would provide 'new' or different approaches to organising, navigating, searching, and discovering this music. The companies considered a thorough reconstruction of the metadata as an essential part of this – I will explain what this means in the next section – in order to optimise search engines and the introduction of new features. The reworking of the metadata received considerable attention from technology and media news outlets after the apps' launches, which praised the efforts of the companies to lead classical music into the digital age (Gardner, 2015; Kloepfer, 2017; Long, 2019; Mandell, 2019; Martin, 2019; Sisario, 2019; Smith, 2019; Swed, 2019; Vittes, 2020; Wassenberg, 2019; White, 2019; Yoran, 2018; Zinnecker, 2019).

In this chapter, I examine how classical music and digital streaming technology intertwine, and how this intertwinement enacts this music and its traditions.[80] As shown in the previous chapter, online music streaming platforms shape and transform the organisation and presentation of music, and hence how this music exists online. Yet classical music, its tradition and aesthetics, also challenge these platforms and their streaming technology. In what follows, I trace the relationship between conventional and 'new' ways of organising and presenting classical music – between the recorded legacy of a centuries-old tradition and a continuously evolving technology developed by start-up cultures embedded in digital capitalism. As Alejandra Solís, former Business Development Manager at IDAGIO, describes, this relationship is often understood as one filled with tension:

> Sometimes, the medium is the message. With streaming that's pretty much the case. Classical music has discovered streaming, and it feels as if the industry now wants to fit the old message into the new medium. And that doesn't really work. (Solís, interview, 2020)

Solís says that the tension between 'old' and 'new' results from a rift between potentially outdated conventions and values of an 'old-fashioned' classical music industry versus new streaming media or technologies (interview, 2020). Her quote is a fitting example of a discourse I encountered frequently in interviews with streaming industry professionals: the assumption of an underlying resistance of this music to digital technology, due to this music's form and structure, but also due to traditional modes of production and distribution embedded in the classical music recording industry. By empirically exploring this

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80 Of course, music streaming entails various technologies and devices. In this chapter, I use the term 'streaming technology' to signify a combination between a digital application or piece of software and a mobile device – in this case, a smartphone – that enables music streaming both on- and offline.

supposedly dichotomous relationship on the platforms, I aim to tease out the complexity of the intertwinement of classical music and streaming technology. I intend to show how the genealogies of different medial traditions and logics come together in these classical music streaming services in order to form seemingly 'new' and innovative ways for classical music to exist online. In doing so, I hope to show that the story of classical music streaming is far more complicated – and entangled – than the narrative suggests.

In this endeavour, the streaming services' archives play a primary role. These platforms provide access to hundreds of thousands of recordings with the tap of a finger, reaching far back into the history of recorded classical music. Building on Patrik Åker (2018) and Hanna Hölling (2017a), the theoretical framework of the archive guides my investigations into how IDAGIO and Primephonic present and organise this archive, and the strategies and mechanisms behind this. As Åker (2018) suggests, the digitality of the online streaming archive allows for a dynamic instead of a static performance of cultural memory, raising questions about the relationship between conservation of and change in this music (p. 85). Consequently, the guiding question of this chapter is: how do the classical music streaming applications IDAGIO and Primephonic organise and present classical music, and what does this mean for how these services actualise this music? To answer this question, I follow Jonathan Sterne's suggestion that

> we should wonder less at the purportedly revolutionary aspects of new sound technologies and more at their most banal dimensions. It is those elements that seem most obvious, least likely to draw our critical attention, that may tell us the most about the central components of sound culture in our own moment. All this is to say that we cannot assume that, by their existence alone, digital transmission and storage media herald a new age, a fundamental transformation in modern sound culture. (2003: 338–339)

I will investigate the two apps' 'most banal dimensions', such as interfaces, navigation, and main features and functions – those aspects which, according to Sterne, tend to disappear for users (2012: 17). In doing so, I address Åker's (2018) concern that there is 'a lack of focus on the different forms the user encounters on a streaming service like Spotify as the result of the platform's organization' (p. 83). As I showed in the previous chapter, researchers of music streaming have focused on industry giants like Spotify, mostly ignoring 'niche' music streaming services. Importantly, Sterne reminds us that a medium *is* the very nature of connection rather than just a mediator; it is the 'shape of a network of social and technological relations, and the sounds produced within the medium cannot be assumed to exist in the world apart from the network' (2003: 226). Classical music streaming presents a relevant case study in this regard because this music's tradition looks different compared to other mainstream genres such as pop or rock, raising the question of how music streaming technology may actualise this art form.

I complement my analysis of the two streaming apps with reflections by interviewees who work or have previously worked for the two services. Listening to the voices of industry insiders and gaining insights into their working practices is commonly absent in music streaming scholarship. One reason for this is that research revolves primarily around user experience and consumption. Another reason is the competitive and alert environment of these (start-up) companies, which complicates access to internal actors as well as hampers their comfort or ability to speak openly about their work. Notably, these companies bring together experts from streaming and marketing and classical music professionals. At the two services, classical music professionals (like critics, musicians, or scholars), tech engineers, customer managers, business developers, and marketing experts occupy different areas of work, which intersect with each other.

My analysis of the two streaming services in this chapter deliberately moves from traditional ways of organising classical music, such as albums, to features and functions of contemporary mainstream streaming services, such as playlists, mood players, radios, and algorithmic recommendations. The chapter ends with a reflection on how these streaming services enact the relationship between classical music as artistic form and commodified product, how this might create new ways for this music to exist, and what the consequences of this are for the conservation – or reorganisation – of this music. As Tarleton Gillespie (2018) argues, cultural power 'is held by a few deeply invested stakeholders, and it is being wielded behind closed doors, making it difficult for anyone else to inspect or challenge their decisions' (p. 198). Consequently, these streaming platforms do not simply mediate music and its artistic heritage: in various ways, they constitute it, direct users' interactions with it, and frame how it is produced and circulated. How, then, do IDAGIO and Primephonic bring classical music into the online streaming realm?

6.2 'The catalogue': Archiving and navigating classical music

IDAGIO and Primephonic pride themselves on the vast musical archive they have created. In streaming industry lingo, this archive is referred to as 'the catalogue'. The term not only implies a system of order but also the necessity of choosing and selecting. The content of the catalogue depends on the labels that the services have brought under contract; it can change or vary over time. On both platforms, catalogues include major labels from the classical music recording industry such as Sony Classical, Decca Records, Warner, or Deutsche Grammophon, as well as a number of independent labels and self-publishing ensembles or artists. While staff constantly seek to add to the catalogue, users may also suggest recordings and labels to include in the catalogue through the apps or online customer service.

Although the catalogue is a fundamental element of these platforms, staff of both

companies argue that its vastness can pose a barrier if it remains unorganised. Hugo Shirley, former Head Editor at IDAGIO and musicologist, explains that

> if you start to think about it in physical terms, you realise how totally un-navigable or unmanageable this vast catalogue is. The most important thing, particularly for classical, is to give people as many ways to navigate as possible. To not make them feel as if they are jumping into this huge unknown void and trying to get a hold on this complex, centuries long history. (Shirley, interview, 2020)

The vastness of this music's catalogue is framed by both companies as a potential problem for users to navigate the apps. At both IDAGIO and Primephonic, the solution to this problem is in the metadata. While metadata of most music streaming services have been developed based on musical genres of pop and rock music, Hoekstra argues that classical music poses special demands and challenges to this well-established system:

> In classical music, you have the name of the composer, the conductor, the orchestra or ensembles, soloists, the key that is being played in, periods, genres, instruments, etc. [...] By introducing these parameters, we can make distinctions between a composer and a performing artist in the metadata, which is something that Spotify or Apple Music can't do. [...] The data is our key USP [unique selling point]. It allows us to develop a lot of user features; if it were not strong enough, we would not be able to do that. (Hoekstra, interview, 2020)

Hoekstra's quote illustrates how, for Primephonic, the metadata is a means to control and order the vastness of the catalogue, which enables the companies to develop and offer new features and allows them to set themselves apart from competitors such as Spotify or Apple Music. The transformation of the metadata is also a key strategy to make the technology work 'properly' for this art form. They create 'new' classifications and categories from a streaming technology perspective, but as I will show in more detail below, these classifications and categories root in classical music and its structural parameters, as well as its recorded tradition. The metadata is one example of these services adapting their technology to classical music.

In this aspect, the services affirm and reproduce classical music's (recorded) tradition, but they also allow for the metadata to be transformed and harnessed in changing ways. The more 'robust' the metadata and its classifications are, the easier it becomes to *do* something with the catalogue – for example, the introduction of new features, sorting mechanisms, or navigational infrastructures. Both apps provide four main 'areas' or pages to users, which present or perform the catalogue in different ways. First, the 'Discover' page (IDAGIO) and 'Home' page (Primephonic) are the default opening pages

of the apps (Figure 11). They present a changing, constantly updated, and curated selection of recommendations, albums, and playlists. Second, there is the catalogue itself, accessible under either 'Browse' (IDAGIO) or 'Search' (Primephonic) pages. Here, users can browse the catalogue along various categories and with the help of different criteria. Third, there are special features called 'Moods' (IDAGIO) and 'Radio' (Primephonic). They present unique 'listening modes' for users. Last but not least, there is the users' own collection, labelled 'Collection' (IDAGIO) or 'My Music' (Primephonic). Here, users can access saved or favourited tracks, or make their own playlists. I will examine all pages at different points of this chapter.

IDAGIO   Primephonic
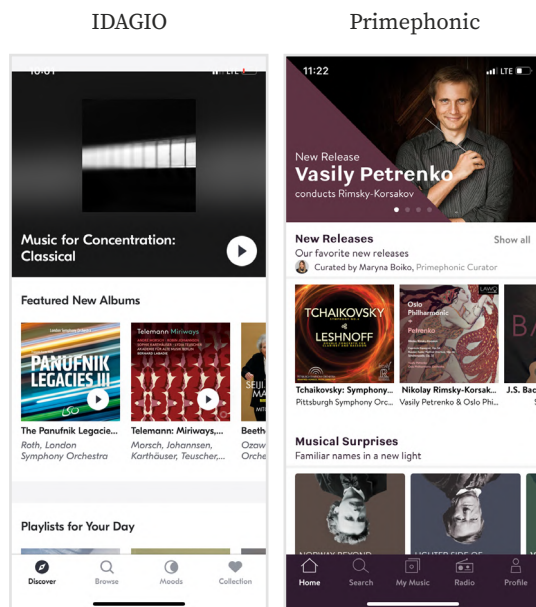
Figure 11: On the left, a screenshot of the 'Discover' page of IDAGIO, taken 11 May 2020. On the right, a screenshot of the 'Home' page of Primephonic, taken 25 May 2020. On the bottom of both pages are the tabs presenting the main sections of the apps. Copyrights/courtesies: IDAGIO/Primephonic.

These organising features, meaning the metadata but also the sections and subcategories in the sections, are what, according to Åker (2018), makes streaming platforms archives and not mere databases. As Ann Laura Stoler (2002) suggests, in archives users move in 'politics of storage' and presentation (p. 87). This means that these platforms perform cultural content and select and frame it in particular ways through means of organisation and classification. The catalogue becomes an archive through the ways in which the services process, structure, and organise their contents.

Considering this, two important pages that solely revolve around the catalogue are the 'Browse' or 'Search' pages on the two services. Whereas a manual search bar enables users to type in keywords and search for specific works, recordings, or artists, the 'Browse' and 'Search' pages also present and list several categories to scroll through and explore (Figure 12).

	IDAGIO ('Browse' section)	Primephonic ('Search' section)
1.	Composers	Composers
2.	Ensembles	Conductors
3.	Soloists	Ensembles
4.	Conductors	Soloists
5.	Instruments	Browse by period
6.	Genres	Playlists
7.	Periods	Browse by genre

Figure 12: Main categories available on IDAGIO's 'Browse' and Primephonic's 'Search' section, in the sequence in which they appeared on the apps at the time of the fieldwork, 25 May 2020.

These categories are linked with the metadata classifications developed by the respective services. Moreover, because these respond to the aesthetic parameters of the music and its recorded history – such as historical periods, composers, and various interpreter roles like conductors, artists, or ensembles – there is significant overlap between IDAGIO and Primephonic. While it seems striking that the category of musical work is absent from this list, I will later illustrate how it is interwoven with other categories and classifications in different places. Both catalogue pages offer a range of organisation tools: subcategories, filters and sorting criteria, images and icons, and hyperlinks that transport users seamlessly between different sections. Individual items – for example, tracks, albums, or recordings – are sorted into these broader categories. This results in a largely invisible, yet evolving network, as the services need to continuously classify and tag newly added items to become part of this network. Each category listed in Figure 12 furthermore consists of subcategories, which lead to individual sub-pages: for example, when browsing composers, users can scroll through a pre-made shelf of popular composers. Clicking on them leads to individual composer pages – as can be seen with Johannes Brahms (Figure 13).

IDAGIO
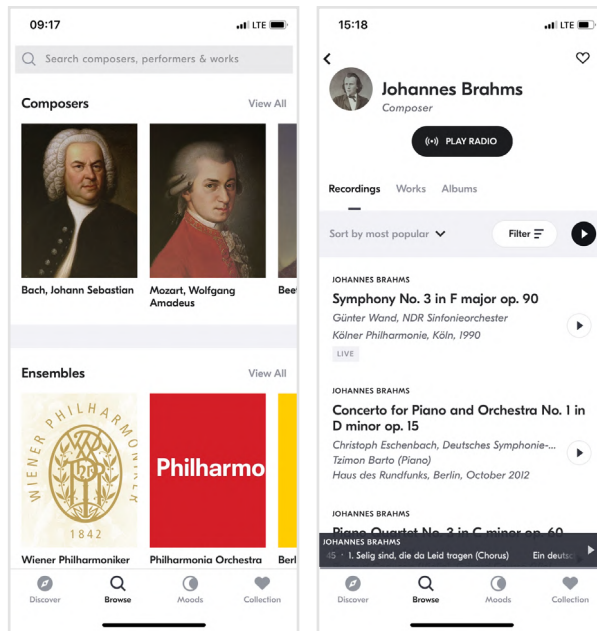
Primephonic
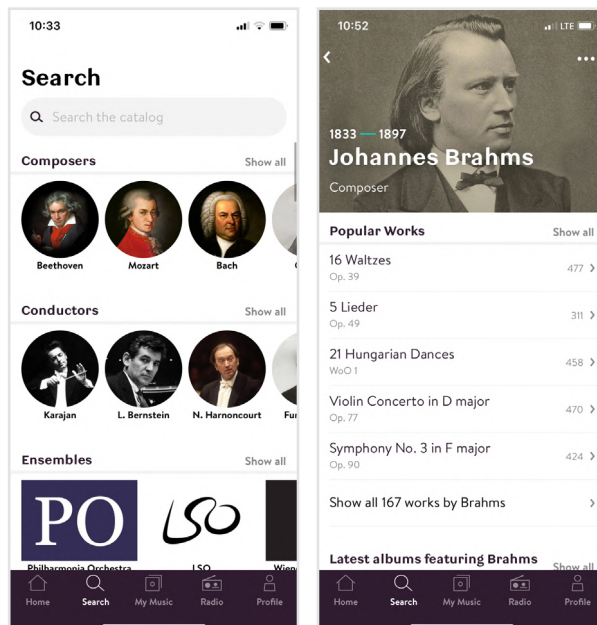
Figure 13: Screenshots of the catalogue pages and the respective composer pages of Brahms. Above on IDAGIO; screenshot taken 13 May 2020. Below on Primephonic; screenshot taken 27 May 2020. Copyrights/courtesies: IDAGIO/Primephonic.

Former IDAGIO product designer and research leader Jen Goertzen compares these individual sub-pages with shop windows of bookstores: 'I would say they are the windowfront, but you can also open the door, go inside, and see what else the bookshop has to offer. But most people stop at the window front' (interview, 2020). Interviewees frequently made use of analogue examples to illustrate the challenges of digital organisation processes of the catalogue, as can also be seen with Shirley's quote at the beginning of this section. This already hints at the fact that the organisation of this catalogue by the respective platforms is not easily separated from analogue ways of organisation and presentation.

All sub-pages – not only those of the composers – include a distinct organisation of the included items. Main tabs enable users to switch between, for example, recordings, works, and albums (see specifically the IDAGIO composer page in Figure 13). Other forms of sorting and filtering rely on specific criteria that differ between the two services, as well as between the categories to which the pages belong (Figure 14).

	IDAGIO (Main tabs composer page)	Primephonic (Main tabs composer page)
1.	Recordings	Popular works
2.	Works	Latest albums featuring Brahms as a composer
3.	Albums	Related composers
4.		Biography

Figure 14: The main tabs that can be found on the composer pages of the respective apps.

Most of the items within these tabs – for example, albums – are by default sorted according to their popularity, although users might choose different sorting and filter criteria to apply to the items on the page.[81]

The composer pages are important nodes of connection, as they tend to be the most searched category and search criterion on IDAGIO (Goertzen, interview, 2020). In both apps, the composer pages include the hitherto absent category of works. Like other categories and items, works are by default sorted according to popularity. Popularity is determined by the frequency of user interactions, which are processed and managed by an algorithm. The reason for this is that by clicking on a work, users encounter hundreds of its recordings; the algorithm aims to facilitate the selection of those encountered recordings. Yet it not merely facilitates, but significantly directs what recordings users ultimately listen to. The

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81   It would exceed the scope of this chapter to list all filters and sorting criteria for each category, yet they have been included in the analysis. Common sorting criteria are, for example, popularity, date of release (new to old), recent additions, or alphabetical order. Filters, in turn, relate closely to the music-specific metadata (for example, genres, periods, keys, instruments, etc.). Users can mix and match filters to specify search results. Different from the filters, sorting criteria present mechanisms to change the order of items on a page.

default popularity setting is far from a neutral tool, as it potentially increases the visibility of already well-known works.

When clicking on particular musical works through the category of 'Browse by period' on Primephonic, a list of 'Related works' appears (this feature is not available on IDAGIO). Human editors or curators have selected and curated these lists of 'Related works', as can be seen with Schumann's *Kinderszenen* (Figure 15; Hoekstra, interview, 2020). This feature is not available for all works but a selected (yet increasing) number – Hoekstra guesses around five hundred as of September 2020 – particularly already iconic musical pieces. It aims to complement the popularity algorithms, putting works into new relation with each other, or featuring less well-known pieces for users to discover new music.[82] It is therefore a mix between human editing and algorithmic curation techniques that decides which works 'matter' and how they connect to each other.
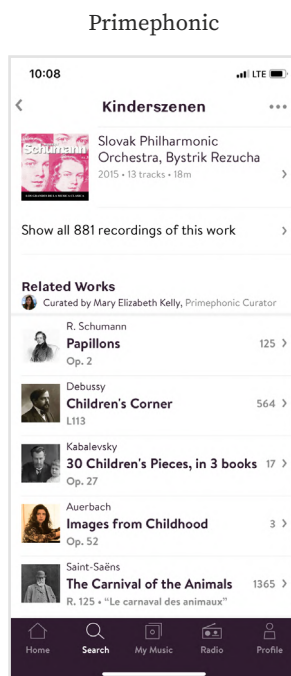
Primephonic

Figure 15: The curated selection of 'Related works' of Schumann's *Kinderszenen*, as presented on Primephonic; screenshot taken 28 May 2020. Copyright/courtesy: Primephonic.

Hyperlinks allow users to move quickly and seamlessly between individual items, pages, and broader search or browse categories. In no time, users can jump between a range of recordings, personas, works, ensembles, periods, and genres. The ways of moving through this catalogue differs from previous – analogue and digital – ways users could interact with classical music libraries. Decades of recorded and centuries of artistic history transform into scrollable and sortable lists, clickable items, and interrelated data sets. Like digital

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82   A similar feature exists for soloists, conductors, and ensembles. It is labelled 'often appears with'.

streaming platforms during the last decade, IDAGIO and Primephonic enact an 'on-demand' speed with which an ever-increasing amount of classical music becomes consumable and organisable in real time. In this process, the haptics of the technology play a crucial role. Endlessly scrollable shelves invite users to never stop swiping, colourful icons are tempting to click on, and links enable the users' attention to branch out into various directions and to 'never stop looking'.[83] In response to such observations, Fenby-Hulse (2016) asserts that

> we need to reflect on what we value about material culture and material interaction so that we can ensure that digital developments enhance our analogue pasts. To do this, we need to think more about enabling craft and creativity within digital environments. (p. 184)

To what extent, then, do classical music streaming platforms engage in enhancing, as Fenby-Hulse formulates, 'analogue pasts'? And what role do these analogue pasts play in the online streaming environments in which classical music now moves?

6.3 Long live albums!

Albums hold a crucial position in the history of recorded classical music. While they can be both analogue (i.e., vinyl) and digital (i.e., CDs and downloads), in the case of classical music they have been mostly recognised as physically tangible objects. In this section, I will turn to the 'home pages' of IDAGIO and Primephonic, meaning those pages that users encounter first every time they open the apps on their mobile device. Here, it will become clear that albums have not stopped to play a major role on these online music streaming services – rather, the opposite.

The respective home pages of the services are labelled 'Discover' (IDAGIO) or 'Home' (Primephonic) (Figure 11). Their contents and appearances are strikingly similar. On both platforms, these pages mostly contain shelves presenting either groupings of albums or playlists, with IDAGIO featuring generally more albums than Primephonic. Goertzen explains that the 'Discover' page 'is for people who want to listen to something right now without having to search extensively', as they display mostly recommendations and selections of music (interview, 2020). On both apps' homepages, albums occupy a firm place (Figure 16).

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83   While not part of this research, this certainly raises the question how this type of software engineering and design enhances user conditioning, the implementation of internal psychological reward systems, and addiction – after all, these apps' designs seeks to keep users engaged.

	IDAGIO ('Discover')	Primephonic ('Home')
1.	Banners (changing)	Banners (changing)
2.	Featured New Albums	New Releases
3.	Playlists for Your Day	Musical Surprises
4.	Critically Acclaimed Albums	Essentials Playlists
5.	IDAGIO Exclusives	*Podcast – Classical Encounters*
6.	Beethoven 2020	BBC Music Magazine Awards
7.	Curated by Artists and Partners	Daily Rarities
8.	Listen and Explore	Artist Playlists
9.	Composer Essentials	Mood Playlists
10.	New Albums – Orchestral	*Primephonic Podcasts*
11.	New Albums – Concerto	Daily Recommendations
12.	New Albums – Chamber Music	Composer Playlists
13.	New Albums – Solo Instrumental	Composers Undiscovered
14.	New Albums – Opera	Masterworks
15.	New Albums – Choral & Song	National Playlists
16.		Instrument Playlists
17.		Choral Playlists
18.		Thematic Playlists

Figure 16: The table presents the shelves on the two platforms' default opening pages, as accessed on 11 May (IDAGIO) and 25 May (Primephonic) 2020. Each shelf often contains more than a dozen items. Albums are marked in blue/underlined, playlists in red, and podcasts (at that time only available on Primephonic) in yellow/italics.

By containing and compiling recordings, albums have been and still are the main currency of the classical music recording industry, which is apparent on the services. Particularly newly released albums play an important role in the two services. Which albums become part of the catalogue depends on which labels are under contract. Yet only a few of all contracted new releases find their way to the 'Discover' page. Shirley explains how editors at IDAGIO select albums for the page:

> When deciding what albums get featured, we want to make sure that people find what they expect. We also want to present albums that are interesting and that people might want to know more about. Of course, there is also the obligations to the labels. [...] Usually there's a good overlap of what labels think is important and what users will want to see. [...] This is relatively straightforward, it's a matter of choosing seven or eight albums a week that look interesting. But one of the challenges that is specific to streaming –

Editors need to constantly negotiate the tension between what users might want to see, what labels want to see, and what they themselves think deserves visibility. Music magazines and newspaper reviews play a role in the editors' decision-making processes, too, as they often set the scene for what users expect to find on the services. There are also legal concerns when it comes to albums. As Shirley describes, whereas physical albums facilitated gatekeeping and the legal distribution of the music, in the digital world it is easy 'to get hold of an old Callas recording, stick a new cover on it, and put it online' (interview, 2020). Consequently, the editors' task is also to highlight the legitimate content provided by labels, ensembles, and artists (Shirley, interview, 2020).

In connection to this, also the resampling of albums' contents plays a role. Goertzen recalls discussions among IDAGIO staff revolving around the question whether albums should be broken down into recordings, as the same recordings are continuously repackaged onto new albums although already included on the platforms (interview, 2020). In fact, on both platforms, albums and recordings have been 'decoupled': although the albums with their recordings are still accessible and visible as complete albums, users can easily follow up on individual recordings, enabling them to track, for example, on which other albums a specific recording has been published. This enables the establishment of a network of a given recording, theoretically enabling users to trace the history of a given recording. It also establishes recordings as the primary form through which musical works can be navigated and distinguished, as users can find countless recordings of the same work with little effort. It is therefore not merely a work that users need to choose but a specific recording of that work, and these recordings exist on the albums. As users browse recordings of works, they automatically have to navigate the albums. The recording stands at the very end of the chain of the operations of the metadata: it is the outcome of the search activities, the thing that a user arrives at to listen to.

What album or even recording users will eventually click on, however, is not only a musical matter but also a visual one. Shirley argues that a well-designed album cover facilitates both curation as well as user interaction:

There's something Tinder-esque about streaming. You scroll through categories, and you're only presented with a cover or the album title. […] You're drawn to whatever looks good or creates an impression the most quickly. And that can be a combination of things, but the artwork or cover are part of that. […] If a cover is just horrible to look at, then we might think twice about featuring it. The likelihood of the performance and recording quality being high is perhaps less expected. As in: 'They haven't got the money or the taste to come up with a good cover.' (Shirley, interview, 2020)

From the comparison to the popular dating app Tinder and the awareness that a cover raises certain expectations about performance and recording quality, it becomes clear that more than ever in the history of classical music recording, it is appearance that potentially – in fractions of seconds – decides what album or recording users will select. And although, as Shirley (interview, 2020) emphasises, editors are 'always on the lookout to put up interesting albums that people would be unlikely to try out otherwise', it is undeniable that for smaller labels, ensembles, and artists, who lack the financial means for artwork, the consequences are ultimately less visibility and interaction.

Album covers can also be points of recognition and familiarity for users, particularly for those who listen to classical music regularly and have their own album collections at home (Goertzen, interview, 2020). This is closely connected to the labels, meaning the publishers of these albums, like the Deutsche Grammophon, whose albums are easily recognisable by their iconic covers. Crucially, labels can themselves be argued to be archives of music and albums, adding another layer to the online catalogue. As IDAGIO set out targeting classical music lovers, Goertzen explains that albums presented the most important means of attraction, as they 'bridge the gap between people's existing collections and moving them onto streaming' (interview, 2020). Why, after all, would a classical music lover use an app on which they cannot find the albums that they particularly like or own themselves?

The importance of albums on the services gives a first glimpse into the different user groups that the companies define. At IDAGIO, users who are very familiar with and passionate about classical music are called 'aficionados'. The company describes them as fans 'who like classical music more than any other genre' and for whom 'classical music […] plays a central role in their lives' (Mulligan, Jopling, & Fuller, 2019: 21). At Primephonic, this target group is given the label 'Classical Music Lovers'. The presumed relation between aficionados or classical music lovers and the albums is important for how the platforms operate. First, as already indicated by Shirley above, it is one of the reasons for the importance of providing new releases. The services assume that aficionados and lovers want to keep up to date with the latest published records. This is especially visible in the album categories that IDAGIO presents, which revolve around new releases (Figure 16). Moreover, both platforms have implemented access to PDF versions of album booklets, in an effort, as former IDAGIO Customer Success Manager Constance Compton-Stewart declares, 'to not make people feel they're missing out on the experience they'd get with an LP' (interview, 2020). Wanting to convince aficionados and classical music lovers that streaming must not contain 'less' than analogue or live listening, the platforms attempt to eradicate any argument those users might have against online streaming by providing elements that connect to more traditional values when listening to classical music. This is, for example, visible in the audio quality that both platforms feel they are indebted to: FLAC audio formats and high streaming rates ensure that aficionados and classical music lovers get the high audio quality that they desire. Providing the highest possible audio quality is a precondition to attract this user group,

which leads the platforms to constantly improve and increase the seamless integration of various high-tech sound technologies with the software (Perlman, 2004). The underlying argument is that digital classic music streaming is not inferior to what lovers and audiophiles experience elsewhere; in contrast, the platforms provide *more* features and improved ways for them to experience the music. This way, the rather stereotypical personas of the aficionado and the classical music lover are pushed, reproduced, and refined.

Whereas IDAGIO focuses on newly released albums, Primephonic's fewer album categories worked alongside criteria of recommendation and critical acclaim. But also here, categories like 'Daily Rarities' – editor-picked albums that were little known and changed on a daily basis – or 'BBC Music Magazine Awards' – albums that received this acclaimed title – effectively underscored that albums are meant to be listened to by aficionados and lovers, rather than users new to classical music or coming from other musical genres. This is stipulated further by staff describing that generally, the albums imply a more traditional listening experience and activity instead of a 'new' one. Both Goertzen and Solís reflect that classical music albums lend themselves particularly well to be listened to as a whole and without interruption (interviews, 2020) because albums present narratives that consist of sequential arrangements of recordings of works, meaning that also the movements of a work are experienced by listeners in a particular – and often chronological – order.[84] Goertzen suggests that through this, albums stimulate a kind of listening that might be difficult to engage for users who come from other musical genres or even other streaming services (interview, 2020). She wonders about the role of albums in classical music streaming in the future, and how to grapple with the different users' experiences and needs. Remembering her work at IDAGIO, she explains:

> People have listened to CDs for so long, they think in albums. But we don't know if that's how they continue to think or listen. Or if that's how they *want* to continue. […] So, the discussion was: do we let the users dictate that this is how it's always going to be? Or do we say, this could be better, try this? And part of that, I think, is pushing playlists and see how people respond to that. And then you choose. Do you keep pushing into that direction, or do you find a way to make albums better? And until now, because we have targeted aficionados, the focus was on albums. (Goertzen, interview, 2020)

Although the album – with its more 'traditional' connotations – is still prominent on the platforms, Goertzen's quote hints at a potential turning point for how classical music exists on online streaming platforms: the encounter of this music with the playlist format, which might open up new doors and pathways.

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84   There seems to be little awareness that – as can be seen in musical genres like pop or rock – albums might be thoroughly conceptualised *Gesamtkunstwerke* instead of a loose collection of recordings or individual tracks.

6.4 The peaks and perils of the classical music playlist

On both IDAGIO and Primephonic, playlists are booming. In contrast to albums, the services consider playlists to be more 'beginner friendly'. They tend to describe playlists and albums as binaries: their duality seems to apply conveniently to the user groups that the two services target, the rule of thumb being that aficionados and lovers prefer to listen to albums, whereas 'beginners' (Primephonic) and 'enthusiasts' (IDAGIO) are more interested in playlists. Playlists have been pushed profoundly by other streaming services such as Spotify in the recent past, and as a consequence have become the dominant form in which streaming users experience and listen to music. In a research report commissioned by IDAGIO and authored by Mark Mulligan, Keith Joplin, and Zach Fuller of MIDiA Research (2019), Joplin proclaims that

> classical music is opening up, with 'mood-based' playlists on streaming services reaching many millions more, often younger listeners, drawn-in [*sic*] by the music's ability to evoke mood, emotion, or offer something truly different to the more popular genres of the world. (p. 5)

The great reign of playlists presumably demonstrates that 'the myth that classical fans are still stuck in the CD era' is 'dispelled' (Mulligan, Joplin, & Fuller, 2019: 9). In classical music, playlists might be considered a relatively new phenomenon, yet Shirley expresses that compilation albums might have offered comparable experiences in the past (interview, 2020). Playlists are an indispensable part of IDAGIO and Primephonic. But do playlists really open up classical music, as the author of the commissioned research report suggests?

To answer this question, it is necessary to examine what playlists the platforms actually offer. On both apps, playlists usually appear on the home pages, under the categories presented in Figure 16.[85] It is noticeable that IDAGIO features almost twice as many playlists in total as Primephonic. Although many categories and themes of the playlists overlap, there are also important differences between the two services. These broader themes can be roughly distinguished between nature, weather, and places; times of day or year as well as events and activities; instruments; genres, periods, forms, and techniques; composers; performers, artists, and ensembles; concentration, relaxation, meditation, and focus; ranking playlists; and miscellaneous.[86] The playlists in the categories range from concrete topics – such as 'The Basson' (Primephonic) or 'Playful Pizziccato' (IDAGIO) – to more abstract and associative themes, like 'Snow' (Primephonic) or 'Evening Impressions' (IDAGIO). One relevant distinction can be drawn between playlists that lean towards a more educational function and playlists that mean to accompany activities and evoke moods and feelings.

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85   On Primephonic, playlists are also included in the catalogue as a separate category.

86   It is important to note that playlists often fit into several categories at once, and not all categories have equally many playlists. This is just meant as a rough distinction for readers to get an impression.

Educational playlists provide overviews and musical portraits of composers and artists, rank works, or present national canons as well as repertoires of certain genres, periods, and instruments. Examples of this category include the (self-curated) artist playlists on IDAGIO, the 'Essentials' playlist by Primephonic presenting the most 'important' repertoire from different genres and periods, both platforms' instrument playlists, or the 'Postcard from…' (IDAGIO) and 'Landmarks' (Primephonic) series, which revolve around national musical traditions. The biggest category in this regard, however, is the composer playlist – with IDAGIO's 'Composer Essentials' and Primephonic's 'Composer #101' series (Figure 17).
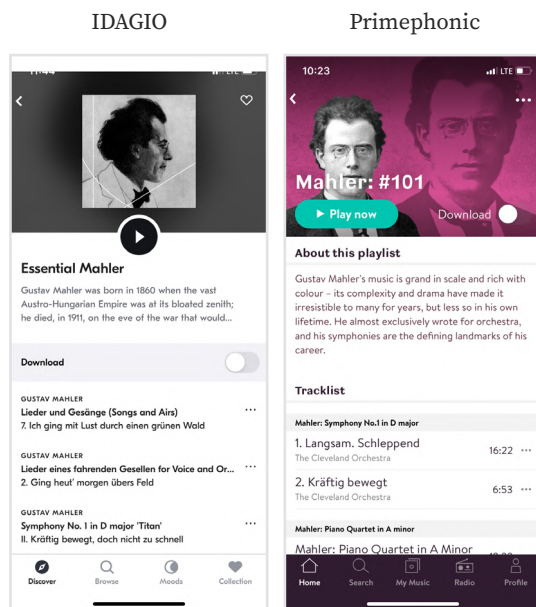
IDAGIO   Primephonic

Figure 17: On the left, a screenshot of the playlist 'Essential Mahler' on IDAGIO, taken 12 May 2020. On the right, a screenshot of the playlist 'Mahler: #101' on Primephonic, taken 26 May 2020. Copyrights/courtesies: IDAGIO/Primephonic.

These playlists contain additional information, such as a brief introductory note on Primephonic and an extensive composer biography on IDAGIO (the same is true for the artist playlists).[87] The featured images are usually famous pictures and illustrations of the respective individuals, potentially recognisable signifiers to both aficionados and users less familiar with classical music. The composer playlists feature a curated selection of (parts of) works of the composer, often attempting to signal or provide an overview of the oeuvre and career of the artist. They differ from the individual composer pages in the catalogue insofar as they present pre-made listening experiences crafted by experts such as critics or editors, so users do not have to select a work or recording themselves. Primephonic has taken this a step further by introducing podcasts. In the series 'Classical

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87   On Primephonic, elaborate composer biographies can be found in the catalogue section on the respective individual composer pages.

Encounters', for example, Head of Curation and music critic Guy Jones takes users through Baroque, Classical, Romantic, and twentieth-century music history by introducing (parts of) musical pieces in combination with spoken commentary. Both, playlists and podcasts, reflect Primephonic's 'educational mission', as Hoekstra argues, to offer particularly beginners an accessible entry into the music and its history (interview, 2020). On both apps, some playlists were curated to be more beginner friendly than others, with particularly artist playlists and artist podcasts targeting aficionados and lovers.

The music itself stays old, with little contemporary classical content. This becomes clear, for example, when examining which composers are featured in the 'Composer Essentials' and 'Composer #101' playlist series. Although Shirley (interview, 2020) stresses that it is not always canonical composers that IDAGIO seeks to represent, it is notable that both services' composer-related playlists largely present white, male, and deceased artists.[88] Ranking playlists on IDAGIO (e.g. 'Top Ten Piano Quartets') and the 'Essentials' series on Primephonic (e.g. 'Symphonic Essentials') also constantly redirect listeners to the 'must-haves' of classical music. Uncharted territories are rare in the more educational playlists, but a few deliberately attempt to break up known contexts and histories. Playlists such as the 'Musical Surprises' and 'Composers Undiscovered' series on Primephonic, or 'Classical Music – (No) Laughing Matter', 'Classical's Craziest Arrangements', or 'Techno-Classical' on IDAGIO are, however, the minority of the available playlists.

The move away from canonical regimes and constructs is presumably facilitated by the more thematic, associative, or mood-based playlists. As Shirley explains, these are not built to be a collection of musical pieces 'that are already popular' (interview, 2020):

> The playlist is a powerful tool. If you're putting up an album, the user makes the decision on whether they are listening to it or not, and they can actively decide not to listen to that. That's different with playlists. For example, one of our most popular playlists is 'Piano Meditation'. [...] My hope is that people click on it, and they hear something they love. They take a look at it, see that it's by Amy Beach, and think: 'Okay! That's quite good music, I'll go and explore this more.' In playlists, people might hear music that they would not necessarily seek out an album of in the first place. They allow us to move beyond what's expected. (Shirley, interview, 2020)

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88 On IDAGIO, only fifteen of 119 composer-related playlists feature women composers; on Primephonic, it was only two of sixty-one (one of them being a compilation playlist of music by a variety of women). More female musicians are visible in the artist playlists, although the distribution of gender is still unequal. On IDAGIO, twenty-five of eighty-three artist playlists are exclusively about or by female musicians; on Primephonic, it was ten of thirty-eight, with the podcasts' ratio two of seventeen. IDAGIO claims to actively attempt to increase the number of female composers who are featured in the playlists generally (Shirley, interview, 2020). Primephonic featured three playlists exclusively presenting women in music: 'Female Composers', 'Female Conductors', and 'Women in Music'. IDAGIO offers one similar playlist, 'Femmes Fatales'. While these findings raise questions of sexism and gender-based discrimination, they also pose questions for the platforms' promises of discovering new and lesser-known music (see also section 6.6).

Moving beyond expectations is easier when users are thought to seek out a 'different' listening experience, as playlists attempt to cater to and create specific needs. On IDAGIO and Primephonic there is a significant number of playlists that refer to particular activities such as working, cooking, having a coffee with friends, doing sports, or commuting. Particularly IDAGIO offers countless playlists focusing on meditation and relaxation or focus and concentration, a playlist 'genre' that is booming in user popularity (Shirley, interview, 2020). While I will examine the role of moods and emotions in the next section, it is important to note that such playlists stimulate users to utilise the music, to alter or enhance the users' emotional or cognitive states, to accompany daily experiences and personal lives.

Even more so than the music in the catalogue or the albums, the playlists recontextualise and reframe the music and the listening experience in various ways through their seemingly inexhaustible themes. For this, both IDAGIO and Primephonic commission critics, writers, and other classical music experts in addition to their own staff to curate the playlists. Hoekstra stresses that curators need to be more knowledgeable about classical music than the most advanced users, so they can provide surprises and new experiences to them (interview, 2020). Shirley further describes that

> there's no doubt in their [the curators'] knowledge, but it is a matter of compromise. Many come from a very traditional or purist background: it's about having the CD, sitting down, listening to it at home. […] But they need to understand what's required for a playlist and be willing to present works' single movements. So, they need to think about curating a listening experience, not just curating a list of good recordings. (Shirley, interview, 2020)

Given that the listening experience is a key issue, Shirley briefs curators working for IDAGIO on the basic criteria, such as the proper finishing of tracks and transitions between them or the length of the playlist. Artist and composer playlists should ideally give overviews of oeuvre and career. Two other criteria apply to mood- and activity-related playlists: vocal music should be avoided, as users tend to perceive it as a disruption. Moreover, Shirley prefers modern over historical recordings, as modern recordings present a more 'neutral' audio quality. He therefore asks curators to avoid historical ones unless there is a compelling reason to include them (Shirley, interview, 2020).

At the heart of playlist making, however, remains one major issue, hinted at also in the quote above. Shirley underscores that the core conflict in playlist curation is how 'to not betray the music by taking it out of context too much and cheapening it, while providing users with something that fulfils a specific need' (interview, 2020). The words 'betraying' and 'cheapening' signify that in the activity of making playlists – much more than in presenting albums or catalogues – the music, its quality and worth, are at stake. Making playlists affects the music's historical and cultural context as well as the structural integrity of the work: composers, periods, genres, and works become mixed and entangled, and movements of

works can be skipped, changing a work's narrative or even identity. The idea that the music can be 'damaged' by being taken out of historical, cultural, and structural contexts is perceived as the ultimate risk as well as a challenge for the curators, who constantly have to engage in this boundary negotiation. Yet, while playlists can be used to introduce, overview, and educate, there is also the underlying recognition that the crafting of new listening experiences can create new contexts and narratives.

The platforms, however, have found additional ways to enable and promote new listening experiences. One important issue connected to this is, as mentioned in the context of playlists, too, is the role of moods and emotions. In the next section, I will investigate IDAGIO's mood player and Primephonic's radio function, two tools closely connected to the playlists and the motivations behind them.

6.5 'Peaceful' or 'passionate'? Playing moods

The mood player is one of IDAGIO'S oldest and, according to staff, most popular features of the service. It is accessible in the bottom menu under 'Moods' and hence one of the main features of the app.
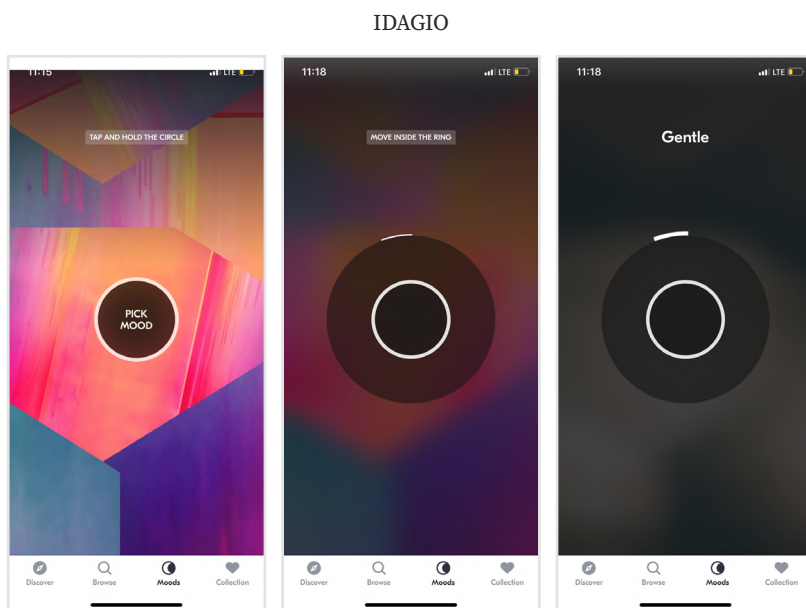
IDAGIO

Figure 18: The interface and handling of the mood player on IDAGIO, as on 15 May 2020. Copyright/courtesy: IDAGIO.

In the mood player, listeners encounter a design tool in form of a ring. They can move the outer white bar of the ring by tapping their finger and holding it to move the bar in a circular motion, to browse between and select moods (Figure 18). The responsive design of the inter-

face invites users to play – for example, by quickly scrolling in high speed – and it is easy to randomly choose a mood by just lifting the finger. Compared to playlists or albums, which provide neat overviews, the selection process of the music significantly changes through this interface. The tool requires users to be spontaneous, as they can never see all moods at once: the design makes it difficult to compare the moods among which they can select.

This is different with Primephonic's 'Radio'. In contrast to the mood player, the radio refers to classical music radio, which is one of the most popular platforms through which listeners access and listen to classical music (Dromey, 2018). Although not featuring live broadcasts, Primephonic's radio – as well as IDAGIO's mood player – might be equally thought to rely on 'programming' strategies (Krämer, 2009). Primephonic's radio implies similar functions as the mood player, yet it differs significantly in interface and design. Here, users essentially mix and match filters of three categories: periods, genres, and 'ambience', the latter the equivalent of IDAGIO's moods (Figure 19).

IDAGIO
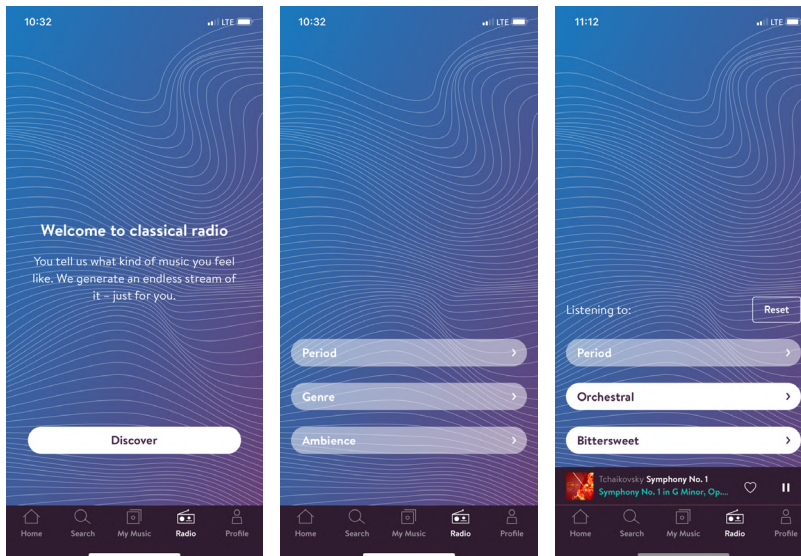
Figure 19: The interface and handling of Primephonic's Radio, on 2 June 2020. I selected 'Orchestral' for genre and 'Bittersweet' for ambience and left the period category open. Copyright/courtesy: Primephonic.

In contrast to IDAGIO, Primephonic's selection process shows the available categories at once, so it is easier for users to take their time to decide on a combination of filters. Yet users can select only one filter for each category, effectively limiting the decision-making process. Also on IDAGIO, only one mood can be selected. The result of the selection process on both services is a seemingly endless stream of music.

Noticeably, the filters of Primephonic's radio pick up on the categories in the catalogue is structured when it comes to the specific periods and genres. In contrast, the mood categories on IDAGIO are seemingly disconnected from the categories and classifications in

the rest of the app, presenting the mood player as a separate or distinct feature (Figure 20).

IDAGIO's Mood Player (moods, clockwise)	Primephonic's Radio (period, genre, ambience)		
Gentle	Medieval (500–1400)	Orchestral	Bittersweet
Optimistic	Renaissance (1400–1600)	Chamber Music	Calm
Happy	Baroque (1600–1750)	Vocal Music	Dreamy
Joyful	Classical (1730–1820)	Stage Works	Ecstatic
Radiant	Romantic (1780–1910)	Solo Instrumental	Energetic
Festive	Early 20th Century (1900–1945)	Film Music	Intense
Passionate	Late 20th Century (1940–1999)	Experimental Classical	Joyful
Powerful	21st Century (2000 and beyond)		Melancholic
Excited			Pleasant
Nervous			Tragic
Angry			
Tragic			
Sad			
Melancholic			
Peaceful			
Relaxed			

Figure 20: The available categories in IDAGIO's mood player and Primephonic's radio, as of 2 June 2020.

On both services, the moods that users can choose from are associative, vague, and leave room for interpretation. While there are clearly distinguishable 'positive' and 'negative' moods, there are also transitional ones, demonstrating that the features intend to accompany users in every potential situation or emotional state. Whereas Primephonic's radio lists moods alphabetically, the design of IDAGIO's mood player directs users differently through the ring design. It becomes clear that this design enables a default setting: as most people are right-handed, many users are probably inclined to move the bar on the ring clockwise with the thumb of their right hand, meaning that they will encounter positive moods first. Background images accompany this process but stay deliberately unspecified and abstract, as hues of colours or geometric patterns that ought to reflect the respective emotion.

Although they pretend to be endless streams of music, the mood player and the radio are, effectively, playlists. However, in contrast to the playlists discussed above, these two features contain up to a hundred tracks and are hence significantly longer. By default, they also exist in a shuffled mode, meaning that listeners will never encounter the music in the same sequence twice. This makes these playlists look like an automatically generated musical stream, helping users experience them as such. Solís argues that the mood player enables users to create their own listening experience, yet the tracks it contains are curated by IDA-GIO, and they have no option to add or remove tracks (interview, 2020). This curation, too, is very different from the curation of the playlists: rather than creating a sequential listening experience, musical works – more specifically, parts of musical works – have to be tagged and fitted into categories that can be quite hard to distinguish. Goertzen describes how this raised problems at IDAGIO, not only for curators but also users:

> You put music into buckets of emotion, which felt too simple to many users. One person I interviewed said 'you can't do this, because a piece will start "sad" but it will become "happy"'. How to categorise that? Will it go in 'sad' or in 'happy'? […] Many users said, 'you can't just say these are all happy songs'. […] Because you'll just have movement within a piece. So many of these pieces are stories, they have a full narrative. So they're not going to be only 'happy'. What people like about classical music is that it moves and flows. While many liked it, a lot of users struggled with the oversimplification. (Goertzen, interview, 2020)

Goertzen describes how the mood player's categories cannot provide room for the development that happens within musical works or even single movements within these works. The mood categories deny capturing the music's ambivalences, as they cannot react to narratives and developments or, as Solís formulates, 'a work's journey' (interview, 2020). They also create issues regarding user expectations – for example, potential clashes with users' expectations of which category or mood a piece might belong to, also as it develops and while users listen. Yet, and maybe even more significantly, the categories potentially affect how users listen to the pieces, directing them substantially in what they ought to feel, or even how to understand the music. Users might also learn to associate certain pieces with certain emotions and moods.

Similarly to playlists, the mood player and radio break up and dissolve known work structures, as they take 'the movements, the separate pieces of different works, and re-classify them by emotion or theme – that means that suddenly, you have a complete new order in which you can enjoy the genre' (Solís, interview, 2020). This issue is relates to the problems curators face in making playlists, as they also point back to the question of 'betraying' or 'cheapening' the music. The mood player or radio might be seen as an intensification of that problem, because pre-made sequences and narratives become obsolete.

Goertzen further portrays how the mood player raised debates within IDAGIO:

> Some members of staff asked, why would you ever put classical music into that format? So, while we could design for it, there was a lot of struggle within the company about: should we? Especially when we think about the company wanting to build up its user base. Then we have to make a decision about which user base are we building up? Who are we trying to feature this to? (Goertzen, interview, 2020)

IDAGIO initially saw the mood player as an entry point for beginners or people less familiar with classical music. While Shirley still affirms that 'it's generally not something that purists like', Hoekstra emphasises that – while maybe not their preferred feature – classical music lovers do like and listen to the Primephonic radio: 'They have a lot of music on their mind that they select themselves. But apparently, there are moments where the radio works better, and some of them use it to explore and discover new music' (Hoekstra, interview, 2020). While assumptions and ideas about user groups and their handling of the mood player and radio vary, interviewees from both companies highlight the discovery argument of the two features. Similar to the reasoning described in regard to the more regular playlists, the staff articulate that these features facilitate the inclusion of a broader spectrum of classical music and not just, as Shirley formulates, 'the usual suspects' (interview, 2020).

Simultaneously, mood player and radio potentially shift ideas and practices of focused or attentive listening. A significant part of the playlists, particularly the mood-based ones, operate in a similar manner. In doing so, these features enable an alternative modus operandi for both curation and listening. While this is not a new phenomenon – also not necessarily for classical music, considering the successful history of classical radio, compilations, and classical music's history on other streaming platforms – what is new is the deliberate, systematic, and regulated manner in which the two platforms enable and adapt so-called easy listening for the art form. As Shirley explains, the mood player broadens expectations and experiences of listening behaviour:

> The mood player is an acknowledgement of the fact that it's unrealistic to expect people to only be able to sit down and listen in a concentrated way. It's giving them a way to still listen to classical even when they're not consciously saying 'this is the piece I want to listen to now'. It might be a bit utilitarian. [...] But with any music – there are many ways of listening to a piece, or experiencing or using playlist. [...] Our aim is to provide a broad spectrum of ways in which people can listen, depending on what they feel like, and what sort of listening they want to do. (Shirley, interview, 2020)

While this might diversify both expectations and listening behaviour, the mood player and radio propagate a musical experience already established on other streaming services.

This experience centres on the individual self, turning listening into a thoroughly private and affective affair. The creation of affective states has always played an important role in listening to classical music, yet streaming apps intensify private and personal listening through their mobility and ubiquity, making it easy for the music to merge the private and the mundane. As shown in the previous chapter, scholars like music sociologist Tia DeNora call attention to how listeners use music to regulate themselves and their moods in regard to well-being (2013). Music streaming scholars like Anja Nylund Hagen (2016a) have found these platforms to be 'extensions of emotional life', which turn listening experience into a 'highly personal and self-referential, as part of self-hood, sociality and everyday way of being' (Hagen, 2016a: 238). Yet, on the mood player or the radio, this is not a free or even very personal experience, as curators and editors feed musical works – or, better, its movements – into these features. What 'emotions' and music the users encounter is pre-made, selected, tagged, classified, sorted. The 'personal' of this listening experience hence looks the same for every user.

As Solís describes, 'you might not even care about the composer, care about when a piece was composed, or what it actually represents. It is only about how it makes you feel' (Solís, interview, 2020). Past heritage becomes intertwined with a user's own present – for example, with their emotional state or as a tool to self-optimisation and well-being. IDAGIO's and Primephonic's mood player and radio are therefore not only motivated by the potential discovery of unknown music, but relate closely to conceptions and traditions of how users regulate themselves. This regulation on the two services turns out to be far from free or even personal.

6.6 Collecting music, personalised discovery, and the loss of effort

So far, this chapter has traced how the two services present but also curate music in different 'places' and categories. In this section, I will examine how users can 'collect' music on the platforms, going deeper into issues of personalisation. One focus of this section is to show how the two services enable and constrain certain practices of collecting and personalising, and what this means for processes of musical discovery.

IDAGIO and Primephonic offer different tools and ways in which users can create, shape, and organise the music and their listening experience. The most important sections in which they do so are the 'Collection' (IDAGIO) and 'My Music' sections (Primephonic). These are, so to speak, the personalised archives of users; anything that users save enters these collections, which have different subsections (Figure 21).

IDAGIO ('Collection')	Primephonic ('My Music')
Tracks	My playlists
Recordings	Playlists by others
Playlists	Composers
Albums	Artists
Artists	Works
Recently Played	Recordings
	Albums
	History

Figure 21: The subsections available in users' archives ('Collection'/'My Music') in the order provided and as accessed on 2 June 2020.

Whereas there are significant overlaps between the functions and subsections of the user collections, on both platforms users cannot rename, delete, or add categories. Another challenge that emerges when users manage their own collections is that there are several options of *where* to save music in the collection. On IDAGIO, users might, for example, save whole albums or single tracks from an album, yet entire albums cannot be saved in playlists. Individual recordings can be pulled from albums, too, to be saved in either recordings or playlists; movements of works might be saved as tracks or recordings. With many possible ways to save different musical items, users need to make decisions on how to sort music in their collection. Primephonic additionally allows users to save composers and whole works. Here, single tracks cannot be saved as tracks but need to be added to a playlist to be kept.

What further complicates the individual organisation of categories and items is that the services' structures intervene in this process. For example, IDAGIO and Primephonic automatically separate a user's playlists from playlists curated by the services' staff and curators. Even more strikingly, IDAGIO does not allow users to adjust, change, or alter the sequence of tracks, recordings, albums, and artists. Items appear in the order in which users add them to category, with most recent additions on top. This significantly hampers the potential for individual ways of organising and structuring these playlists. An exception to this are self-made playlists, in which users can change the order of tracks. External playlists cannot be modified further in any way. Primephonic, in turn, allows for users to sort the items in the categories according to criteria already used in the catalogue, such as 'newest', 'oldest', 'A–Z', 'Z–A', or 'Popularity', but not according to the users' own ideas.

Consequently, although users can collect music and establish their own musical 'profile', they are directed to collect and organise in specific ways, having little say in categories and order. The lack of possibilities for intervention raises questions about how much individuality or personalisation is actually possible in the collections. Another example of this is that users cannot change icons and images. IDAGIO generates images of items in each

category automatically, and often displays pictures of composers rather than, for example, album covers. As mentioned previously, however, album covers can be important points of recognition and can assist in distinguishing between recordings. This is different on Primephonic, where one's own collection looks, by default, much more visually distinct and supports an increased visibility by presenting items in the categories already in the overview (Figure 22).
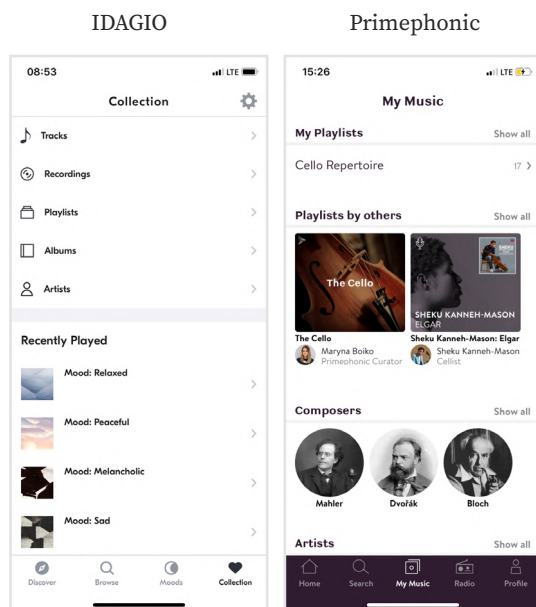
Figure 22: On the left, a screenshot of the 'Collection' on IDAGIO, taken 18 May 2020. On the right, a screenshot of the first few categories of the 'My Music' section on Primephonic, taken 28 May 2020. Copyrights/courtesies: IDAGIO/ Primephonic.

Appearances and visual design significantly facilitate the users' navigation and orientation as well as give the collection a more personal touch. The visual design of the users' collections also relates to analogue collecting. Compton-Stewart from IDAGIO reflects that the tangibility and physicality of a record are unattainable to represent in the digital realm, making it questionable to what extent such aspects should be simulated:

> Petzold: Regarding the tangibility of a record, you said that you're not sure if it's worth trying to simulate that in the app. Can you elaborate?
>
> Compton-Stewart: I think it's something we stay away from because it feels counterintuitive. Being a streaming app is not a physical process, it is a digital-practical-portable-accessible-open-free space. That's very much the approach. Trying to make it too much like the real thing – whatever that might mean – in terms of product development would feel confused. [...] For example, recreating a visual library as your collection,

The hesitation to create an interface that references or simulates analogue forms of collecting hints at how the services attempt to distinguish themselves from 'older' ways of providing, organising, and acquiring classical music.

In fact, the platforms introduce an entirely new idea of what collecting does, and what its purpose is. In contrast to analogue practices of collecting, in which listeners own or possess tangible records and where incompletion is a default condition, in digital streaming, collecting – or more specifically, saving by favouriting – becomes a means for users to control and limit the continuously accumulating content offered by the platforms. Amid the classical streaming jungle, the collection then acts as a (partially) self-created space in which users know their way around and whose contents do not necessarily change every day (unless the user initiates this). But the collection also poses an existential dilemma to the user, or more specifically, non-user: once established, ending the subscription means losing access to the service, meaning also one's own collection. Consequently, the 'Collection' and 'My Music' sections are vital tools to keep users subscribed. In short, the more listeners become attuned to their online collection, the less likely they are to unsubscribe from the service. The collections are hence a means for users to control the catalogue, yet they are also tools for the services to control the user.

Users' collections are also a vital means to create worth and dependency in a realm in which no album is effectively more valuable than another, because every item on the platform is subsumed under the umbrella of subscription rather than possession. Scarcity and rarity, elements that are vital to practices of collecting and ownership, are practically absent on IDAGIO and Primephonic. To further help users navigate the content, the services include additional algorithmic recommendation systems. The use of algorithms, however, looks different for the two services: whereas IDAGIO's recommendation system takes human editing as a basis, Primephonic relies on a more complementary distribution of human curation and algorithmic recommendation. While using algorithms to, for example, track user interactions at IDAGIO, Shirley explains

I'm keen to come up with ways where human curation could be harnessed better by the technology. You have a foundation that's human curation, but the technology needs to learn how to use that. Different tags – for recordings and albums – are essential to do that so that the AI can identify what is good and can also learn what makes it good. And then they build recommendations based on that. Or, even more straightforwardly, create personalised groups of recommended albums or whatever, which serve things that tally with what people have been listening to, what sort of genres they like, and offers them related recommendations. (Shirley, interview, 2020)

As Shirley's quote demonstrates, all algorithmic work starts from human work, be it curated content, personalised recommendations, or the manual tagging of music. While IDAGIO searches for ways in which algorithms can act more effectively upon human curation, Primephonic has already spent considerable resources on this issue. Here, personalised algorithmic recommendations are already in place, enabled through a combination of laborious, manual tagging of music and tracking of user interactions. Algorithmic recommendations, describes Hoekstra, can only work if the metadata is fully developed (interview, 2020). While both companies refrain from disclosing how algorithms are concretely developed, Hoekstra stresses that 'we have enough data points to understand what a user likes, for example if they like Baroque music, or chamber music, so we will give more suggestions for chamber music from a certain period' (interview, 2020).

As recommendations sit at the intersection of human curating and algorithms, they act complementarily to different degrees, but ultimately have two significant consequences. The services help users create their own canons and repertoires. IDAGIO and Primephonic help not only explore historic or cultural canons, but alternatively enable the formation of canons and repertoires that are tailored to users' individual and personal lives. Moreover, the algorithmic recommendations feed users more of what they already like. This tendency is also apparent in expert-curated content, as seen, for example, in the enormous amount of piano music featured in IDAGIO's playlists. Findings like these raise fundamental questions for the promise of discovery that both services make, and on which they pride themselves.

As shown in Chapter 5, this funneling of users towards content similar to that which they already like results in the creation of bubbles of personal preference and a broader process of homogenisation rather than diversification (Arielli, 2018: 93; Kjus, 2016). These bubbles further help the platforms to stimulate trust: Hoekstra (interview, 2020) describes that well-fitting, personalised recommendations help bind the users to the platform, further inciting them to rely on the recommended music and to come back to the service regularly. As IDAGIO and Primephonic feed music to the users via human and algorithmic recommendations, they therefore minimise the potential for users to encounter music that they might not immediately like or enjoy. Music that falls out of these preference bubbles becomes a risk to optimising engagement – discovery, hence, might be argued to fundamentally depends on the user's own efforts to encounter new music.

Yet these recommendation systems raise questions for the notion of effort and labour that users need to invest in searching, finding, and collecting music. Goertzen explains that on IDAGIO, features vary according to how much time and work users are expected to put into their streaming practices: whereas some features are designed for users to take as few steps as possible – like the mood player – others allow users to invest more work, such as the 'Browse' page (interview, 2020). Hoekstra (interview, 2020) confirms:

> The browse page requires effort, because you need to select a composer, an orchestra, or an instrument. Then you need to pick a work and a recording. There are multiple steps that cause stress. Not real stress, but you need to make a choice. Like in the supermarket. [...] And all the time you need to make a choice, that goes at the cost of acting. [...] We can partially solve this with 'This is the recording that we recommend to you'. Or 'This is the radio, where you don't need to select anything, but just get music that fits your interest.' (Hoekstra, interview, 2020)

While some features – like the 'Browse' page – provide space for labour, the services reduce effort as much as possible, through, for example, the curation and personalisation of the content. This, however, can be argued to stand in the way of musical discovery – or, at least, it establishes an idea of musical discovery that rests on comfort, sameness, and a homogenisation of taste. Users can only sidestep this if they are willing to make an effort to explore other ends of the vast catalogue on their own – for example, through the search engines and catalogue pages. As Hoekstra's quote signifies, discovery also becomes something tied to occasion – finding new music that fits a specific interest or activity – which might further lead to a loss of discovery for its own sake.

Developments like these are not exclusive to classical music streaming but relate to broader traditions and trends in the music streaming landscape. In the conclusion of this chapter, I will reflect on the consequences of how these and other traditions and trends affect how classical music is presented on the two platforms.

6.7 Towards making new mistakes

In this chapter, I have sought to examine how the classical music streaming services IDAGIO and Primephonic shape the organisation, navigation, and presentation of classical music online, meaning how they actualise this music's digital streaming archive. I have identified five relevant themes to answer how classical music is actualised on and by the respective services: the presentation of the catalogue, the role of albums, the potentials and constraints of playlists, the implications of mood player and radio, and human and algorithmic curation and collection practices, including their consequences for issues like discovery and effort. I have revealed that in their ambition to establish a music streaming service that 'gets classical music right', the platforms draw on older and more recent traditions and histories of a handful of media and technologies. These technologies are not merely self-acting agents or 'natural' outcomes of these histories; these platforms enact them in ways and logics that closely relate how classical music has been organised, classified, and recorded in the past.

IDAGIO and Primephonic differ marginally in their focuses, features, and interfaces, and operate in strikingly similar manners. Traditional ways of publishing, organising, and

presenting classical music are visible in the renewed metadata, the catalogue, and the albums. While the services adapted the metadata to account for the aesthetic structures of classical music, the catalogue and the albums depend on the classical music recording industry and this industry's history, conventions, and output. This results in a heightened relevance of albums and new releases, as well as the fallback on categories such as composers, ensembles, conductors, soloists, and more in the catalogue in order to optimise search results and facilitate navigation. The platforms consider these aspects particularly relevant to attract and engage the specific user group of classical music aficionados and lovers – meaning users who are already familiar with and knowledgeable about classical music.

Yet both platforms attempt to provide new forms of organisation and easier access to classical music recordings. Playlists, podcasts, gadgets such as the mood player or radio, the users' own collections, and curation and recommendation systems all present supposedly 'innovative' ways in which users can engage with classical music recordings. Playlists (and particularly podcasts) present ample opportunities to explore the music's connection to certain themes – for example, educational, canonical, and more imaginary and associative ones. They also challenge the structural integrity of the musical work by proposing alternative ways of organising, connecting, and listening to it. Recommendations – created with the help of algorithms and expert curation – lead to a more tailored and individual ordering and presentation system. Users' collections become a space in and with which to further control and limit the catalogue. All of this has implications for the extent to which the services make the music 'explorable' in practice, as well as the labour that users have to invest in handling the apps. The services are dedicated to classical music while aiming to maximise the users' long-term engagement, and hence aim to reduce effort wherever possible.

In their struggle for user attention and profitability, the two services have to respond to established conventions of online streaming. Hoekstra argues:

> 80 per cent of the users interact with Apple Music and Spotify, so we cannot have, for example, a 'My Music' section [at Primephonic] that is completely outdated compared to what other services offer. The difficulty of operating a niche service is that you cannot say, 'I will make classical music with these-and-these features' and that's it. You also need to be on par with all the others. (Hoekstra, interview, 2020)

The aim of these services is not only to provide an online home for classical music but to simultaneously keep up with the technological developments on other platforms. This shows how IDAGIO and Primephonic rely on a mix of the traditions and practices of different media and technologies, such as well-established online streaming conventions, the developments of mobile music technologies, and classical music's recorded history and industry. This is one of the reasons why IDAGIO and Primephonic look similar and operate in strikingly comparable ways. While my approach has not been a media-historical one, scholars like Lisa Gitelman

(2006) have demanded to look closer into such histories, as 'media are denizens of the past' – not only because they are shaped by past media but also because they shape our encounters with the past (p. 5; cf. Bolter & Grusin, 1999; McLuhan, 1964). This has become particularly clear in the case of classical music online streaming, in which certain technologies and media might be argued to become canonised themselves.

Gitelman, however, also draws attention to the argument that media are not 'self-acting agents' that are passive results of their genealogies, or that move or hold cultural power intrinsically (2006: 9). We make them. This case study has, where possible, revealed how. It has demonstrated that these services, in their actualisation of classical music's online archive, amplify three aspects in particular: classical music's tradition and its recorded history, the commodification attached to the streaming services' technological culture, and the issue of using music for self-enhancement and self-control.

Despite their ambitions to open up the catalogue of classical music and enable discovery, IDAGIO and Primephonic reinforce its canons and traditions. This concerns both main user groups: classical music lovers mostly already know what they want to listen to and are catered to that through features like the albums; users who would like to know more about classical music are presented with more educational and introductory features and functions like overview playlists, popularity algorithms, and expert-curated content. Canons and well-established traditions of classical music present the point of departure for all that these services do.

This relates to how the services 'platformise' this music, meaning how the two apps commodify its control and access. IDAGIO and Primephonic are eager to frequently repeat promises of democratisation and all-encompassing access, but as this empirical investigation has demonstrated, the logics within which this archive is actualised are neither self-evident nor politically neutral. These logics operate along the lines of competitive start-up culture, optimisation of user engagement, and promises of 'technological progress'. Of course, this is only a recent end in a long line in which classical music has existed as a commodifiable product. Yet companies like IDAGIO and Primephonic – the latter having been swallowed by Apple – will set an important ground for how certain audiences will consume, experience, learn about, and listen to classical music. This also raises the question of how these services might deal with and affect non-users, as Sally Wyatt (2003) reminds us. And while the companies argue that they merely strive to fulfil users' needs, they constantly create new ones.

The last point is connected to this, and rests in the finding that the streaming services amplify wider trends of mobile music technologies in which music is used for self-control and self-enhancement, as I also showed in the previous chapter. Features like mood players and radios, thematic playlists, the users' own collections, and a lack of sharing functions seem to seamlessly pick up prior developments of listening becoming a more and more private affair. And not only that – this private listening is also tailored individually with the help of algorithmically generated recommendations and personalised suggestions.

In short, examining how IDAGIO and Primephonic actualise this online or digital archive of classical music has revealed a number of path dependencies of the different media and technologies in connection to classical music. Classical music and its recorded archive become embedded in the creation and continuation of these medial and technological traditions. While the platforms and their streaming technologies can subsequently be argued to develop a repertoire or set of strategies for actualisation, these will, together with changes in these media and technologies, constantly evolve and develop. And while these path dependencies can be argued to limit and restrain processes of actualisation, they might also bear potentialities for innovation, as I will show more concretely in the conclusion of this book. For example, the case study has demonstrated the ability of these services to establish order and engage in processes of reordering and reconnecting.

The remaining question is, given these insights, what the future of classical music online streaming can look like. Streaming platforms have become important infrastructures to various digital music streaming industries, 'just like commercial broadcasting used to be a native infrastructure of the 20th-century music industry' (Bonini & Gandini, 2019: 2). Even now, coming out of the Covid-19 pandemic, Dominic Seldis, former ambassador of Primephonic and double bassist at the Concertgebouw Orchestra in Amsterdam, worries about the capabilities of the classical music industry to cope with online streaming and its developments:

> Especially from here on, streaming will become more and more important. The classical music industry will have to start taking that into consideration. For a long time, it ignored iTunes or Napster, at an enormous cost. […] And if we're not careful, we will end up doing the same thing again. 'Oh, streaming is just a little thing. It's all about live. So, once we've gone back to live, streaming will go back, too.' I don't think that's smart. We must join forces and learn from past mistakes. And make our own new mistakes. (Seldis, interview, 2020)

To Seldis, the idea that classical music online streaming might become a platform to make new mistakes is a comforting one: where mistakes happen, reflection and change can happen, too. Streaming classical music online is undeniably already in full swing, and not only recently. It is 'nothing new', as both the music and online technologies show, yet it is 'nothing old', as the platforms bring together this past music with other media and technology traditions in novel ways in swiftly changing contexts of current tech cultures. So, here is to making new mistakes.

The violoncello

7

Being with instrument: Higher music education and human–instrument relations

7.1 Learning to play an instrument

When I was in primary school in the 1990s, I was one of the few kids in my class who did not learn how to play the recorder. My parents never insisted I should, and I had no ambition or interest in doing so. At first, this was very convenient: instead of having to go to lessons and practice, I could continue to play Pokémon on my Gameboy and stroll through the neighbourhood. Things went awry when, on the schoolyard, I realised that I could not participate in talking about – or rather, *complaining* about – playing the recorder. I learned that some of my friends had entered a world of which I was not a part: a world of lessons and practice, performances, of learning how to read scores, of choosing pieces to play and learning to live with those pieces that you did not choose yourself, of breathing correctly, not getting it right, memorising notes, coordinating your fingers. Although I witnessed these things, I remained an outsider to them.

When I started my research at the MCICM, roughly twenty years later, I decided it was time to finally learn how to play an instrument. Not any instrument, but a *classical* music instrument (meaning, not the electronic bass guitar I had half-heartedly tried to master in my teens, when I desperately wanted to be cool and in a band). The reason for that was a pragmatic one: such an instrument would enable me to better understand the world I was going to research from the perspective of a practitioner or musician. I did not know what instrument exactly; the only thing I knew was that it had to be a string instrument. I wanted to know how it felt to touch the strings with the tightened horsehair. I wanted to know what happens between the hair and the strings, that point of contact, how it *feels* to create a sound, and how difficult that would be. In a spontaneous leap, I chose the violoncello. And with this curvy wooden object, I entered this world – and a whole community – of whose existence I had been only marginally aware of.

To be clear, (autoethnographic) reflections on my own cello playing are not part of this book. I also do not intend to judge how difficult or easy it is to access this world, although this is an important discussion, as education sociologist Anna Bull (2019) shows in her research on classical music education in the youth culture of white middle-class Britain. She demonstrates how classical music education practices – through their creation of a particular aesthetic – cultivate issues of inequality, gendered class identity, and processes of social organisation

in young people's participation in classical music. Research like Bull's demonstrates that learning how to play an instrument in a classical music context is a special and specialised affair. In this chapter, I aim to unravel this context and prepare Chapter 8, in which I examine the role that the embodied relationship between an instrument – the cello – and musician plays in how classical music is actualised at the conservatoire and a cello festival. Processes of learning, as well as the engagement between musician and instrument, are at the heart of this investigation. In this chapter, I will therefore introduce scholarly discussions on the practices and traditions in higher music education. I will be making my way, by way of argument, towards establishing the importance of the embodied dimensions of the relationship between musician and instrument. My aim is to highlight this relationship as a vital factor in both the ongoing conservation and the ongoing – and potential – change of how this music exists. This embodied relationship can be considered an archive, literally incorporating distinct potentialities and ways of actualisation. These I will examine in more detail in Chapter 8.

Instruments are, naturally, an integral part of music education at any stage, yet they are rarely thought of as agents by the practitioners. Rather, practitioners aim to master the instrument and make it docile for the sake of art. This idea lies in the history of classical music, in which both performers and instruments have been understood as exchangeable and ideally invisible transmitters of a supposedly 'transcendent' art form (Bull, 2019: 24–25; Hunter, 2005; Leech-Wilkinson, 2016). As I argued earlier with the help of Lydia Goehr (1992/2007), the emergence of the notion of the musical work in the eighteenth century enabled the distinction between composition and performance, resulting in performers being expected to be faithful to the autonomous work. Importantly, as musicologist Joshua Navon (2020) explains, the introduction of *Werktreue* was not a transformative, disruptive event, but rather a steady, often situatedly negotiated concern (pp. 63–64). How musicians and instruments enact and negotiate *Werktreue* is, hence, situation-specific and dependent on factors such as musical tradition, locality, or educational background. The assumption that performers are merely transmitters of an autonomous art form has been contested in various fields, among them music sociology and musicology. Scholars like Georgina Born (2010; Born & Barry, 2018), Nicholas Cook (2003, 2014), Tia DeNora (1995, 2003), and Christopher Small (1977/1996, 1998) have drawn attention to the actual practices, materialities, and environments involved in producing and performing music. In doing so, these authors have, all in their own ways and with their own focuses, demonstrated that music is not a transcendent artefact but a collaborative process produced by a broad range of various human and non-human actors. Here, the musical work becomes merely one starting point to understand daily musical practice in society.

These insights, however, seem contradictory to what is still practised and taught in higher music education, particularly at the conservatoire, where the idea of faithful execution of the score – *the* representation of the musical work – is very much the norm. In line with his previous argument, Navon underlines that 'what might be called normal-mu-

sical activity – such as the faithful execution of musical works – is the product not of a ubiquitous paradigm originating in a canonical text, but of specific and localized pedagogical regimes' (2020: 67). This means that it is important to look at educational contexts if we want to properly understand how traditions are upheld, reproduced, and negotiated in classical music practice. In this chapter and the next, I tell not a story of instruments and performers as transmitters; I tell a story of involvement between musicians and their instruments, in which they fundamentally shape musical works while having to negotiate and navigate the manifold unspoken rules and traditions in classical music *together*. Anthropologist and cellist Tim Ingold (2013) argues that the vitality of the artwork lies in its materials (p. 96); consequently, examining this educational context must include also refocusing attention to the role that instruments play in this, which have remained particularly opaque in higher music education research.

After all, and pointing back to my introductory anecdote, classical musical education begins at an early age and with a fundamental choice: *what instrument to play?* In fact, it might be safe to say that these kids choose an instrument because of its concrete material capabilities and characteristics: because of the sound it makes, what it looks like, or how it feels with the body. In musical families, instrument choice might be guided or even dictated by parents, family histories, heritage, and memory. This hints at the fact that playing and instrument – and what instrument – enables a form of social belonging. Veerle Spronck (2022), for example, recalls that other musicians asked her what instrument she plays in order to position her inside or outside of particular worlds (pp. 74–75). At the conservatoire, instruments shape social cliques (Kingsbury, 1988); choice of instrument determines and affects particular pedagogies, and students' and teachers' experiences thereof (Gaunt, 2006, 2009). In short, musical instruments matter a great deal in how classical music might be understood, learned, taught, and embodied.

In many ways, classical music education is different from the education of other musical genres, such as jazz (Sarath, 2013; Wilf, 2010). Christophe de Bézenac and Rachel Swindells (2009) show, for example, that musical learning and teaching is genre-specific and requires specialised pedagogic strategies (p. 9). Western classical music is a particularly formalised genre, whose educational practices have significantly shaped the development of Western art music. This can, for example, be seen in the amount of instrumental repertoire, as well as études that have been specifically composed for examinations and entrance auditions at the conservatoire (de Bézenac & Swindells, 2009: 10). The authors describe how musical learning became compartmentalised, a development deeply connected to the rise of mass education and professionalisation across the Continent. Intertwined with processes of industrialisation and accompanied by methods of mass production and standardisation, de Bézenac and Swindells stress the increasing importance of 'attributes such as interchangeability, reliability, rapidity, repeatability and predictability' (2009: 10). These developments also affected music pedagogical methods: scales, technical and theoretical

exercises, and instrument-specific études emerged in the eighteenth century and became dominant in the nineteenth, further standardising the practice and transforming musicians into highly skilled and specialised practitioners (Small, 1977/1996: 83). As Bjørnar Utne-Reitan (2022) shows, such performative pedagogies were neatly separated from the primarily written discipline of music theory.

These are developments and issues that will return in the next section; for now, let me highlight that the practices and workings of the classical music educational landscape have received heightened attention in the last decades, not only from music sociology and musicology but also from disciplines such as ethnomusicology (Nooshin, 2011, 2013; Ramnarine, 2008). The borders between these disciplines often seem fleeting (Cook, 2008), particularly when looking at ethnographic studies on musicking communities and schools, the professionalisation of classical musicians, and activities such as rehearsals and competitions (Bayley, 2011; Cottrell, 2004; Finnigan, 2007; McCormick, 2015; Wagner, 2015). In such studies, the experiences of students (and teachers) have been recognised as a growing concern.[89] Although not the focus of this research, classical music education has also been researched in terms of social (in)equality, democratisation, and globalisation (Allsup, 2003; Bull, 2019; Taylor, 2016).

To better understand the role that instruments play in music education and the conservation and change of tradition, the conservatoire plays a particularly significant role. Here, students learn how to relate to their instrument 'professionally', training and being trained to hopefully make a living with classical music. Those who manage to enter this institution are part of the selected few deemed 'good enough' to pursue a career in professional music. To provide proper insight into the workings of the European conservatoire, I will first dive into its history and its pedagogies. I will then closely examine teaching and learning practices in this institution – notably, the system of one-to-one tuition or the master-apprentice model. I will end this chapter by making a call for understanding musicians and instruments together.

7.2 The conservatoire: 'Just a building full of empty rooms'

Conservatorium
Traditionally, a music conservatorium is a music school that is independent of a college or university, and which provides specialized training in classical music performance. In the twenty-first century, conservatories are usually affiliated with colleges or universities. An increasingly diverse range of degree and non-degree courses includes music

89   This refers to the experiences of these musicians in the context of musical learning and teaching. Some suggestions for further reading include Burt & Mills (2006); Juuti & Littleton (2016); Long et al. (2014); Pitts (2002); Postrollo (2019). Such research has led to growing concern for recognising social injustices and fostering inclusion in higher music education, a system that has benefitted and still benefits from dependency, physical and emotional abuse, and gendered and racist discrimination. Here, relevant studies include Bull (2018, 2020); Citron (2004); Devenish, Sun, Hope, & Tomlinson (2020); Griffiths (2019); Page, Bull, & Chapman (2019); Ramstedt (2022).

> performance in multiple genres, musicology, composition, conducting and music education: sometimes in combination with each other or with non-music disciplines. The European term for conservatorium is conservatoire, and in the United States the term conservatory is often used. (Bennett, 2008: 8)

> The younger brother of a colleague of mine was interested in studying music at the conservatoire in Birmingham, where I studied at that time, and he asked whether I would be interested in giving him a tour of the building. It was summertime, so most of the students had gone home. I showed him around the building, the empty concert halls, the empty practice rooms, the empty recording studios. He finally said: 'But it's just a load of empty rooms!' (Ingamells, personal communication, 2021)

These two quotes offer, admittedly, two very different takes on what a conservatoire is. Whereas Bennett (2008) offers some factual information, the anecdote shared by British experimental composer Andy Ingamells highlights that the conservatoire is silent without students, teachers, and instruments. Like any education institution, a conservatoire provides a concrete social and cultural environment where people and objects move and interact with each other. Yet – and believe me – a conservatoire turns out to be especially eerie without music spilling from every other corner.

The history of the European conservatoire dates to sixteenth-century Italy. It has its roots in the 'conservatorio', orphanages that offered musical training (Bennett, 2008: 57). Bennett highlights that the growing popularity of secular music concerts in the eighteenth century prompted an increasing need for skilled performers (2008: 58). Whereas the Italian conservatorio featured an apprenticeship model, it 'did not compartmentalize easily between performance, composition, and improvisation' (Ibid.). Navon (2020) proposes that the shift from the Italian conservatorio towards a new, more professionalised European conservatoire structure first crystallised at the Paris Conservatoire, in which performance became the main subject of teaching and learning (p. 66). The division between performance and composition further enhanced the consolidation of the notion of *Werktreue* (Ibid.). This pedagogy grew significantly in the second half of the eighteenth century, with the rise of the bourgeoisie contributing to the expansion (Bennett, 2008: 59).

In his historical study on the pedagogical structures and practices of the Leipzig conservatoire, Navon (2020) offers some remarkable insights into the pedagogical and aesthetic philosophies that this development entailed and initiated throughout the nineteenth century. The simultaneous ascension of music conservatoires and ideas of *Werktreue*, he claims, were not coincidental but embedded in a broader musical and aesthetic transformation (p. 64; Hunter, 2005). He shows how *Werktreue* became intertwined with 'a historically specific educational regime in which performing musicians learned their expertise' (Navon, 2020: 64). The Leipzig conservatoire is only one among many European examples. Navon argues that it was the binary

of *Technik* (the bodily capacities and techniques required to perform a piece) and *Vortrag* (the successful ability to interpret the piece) that came to dictate studies of performance:

> With *Technik*, students were encouraged to dedicate themselves to transforming their own bodies, while also being taught to treat that process as just a means to an end – their bodies were, in essence, things to be overcome. Once a student had acquired sufficient *Technik*, their body could act as a kind of transparent medium, offering no resistance when called upon to realize their conception of a musical work in sound. This perspective further justified the ascendant value of *Vortrag* over *Technik*. (Navon, 2020: 75)

This pedagogical structure made musical works the measurements of proficiency, and the development of *Technik* became essential also to the rise of private and solitary practice, resulting in a boom of technical proficiency among students (Navon, 2020: 80).[90]

Technique and interpretation remain salient issues for conservatoire students today, yet Bennett and Navon emphasise the changes that conservatoires and their curricula have undergone since then. These curricula broadened over time to include subjects such as music pedagogy and therapy, musicology, and even other world musics. With institutions increasingly competing with each other, specialisations of curricula and courses in areas such as early music and ethnomusicology emerged (Bennett, 2008: 62–63). Nowadays, conservatoires frequently offer opportunities for students to take courses on communication and marketing, business, event management, artistic research, and mental and physical health. Connected to this, Bennett (2008) quotes previous Guildhall School of Music Director Peter Renshaw, who admits that art institutions 'are precariously poised between conserving the past and being swamped by the increasing constraints of public accountability' (pp. 60–61). Initiatives to innovate the conservatoire (such as the Innovative Conservatoire or the research working group of the ERASMUS Network for Music 'Polifonia') have been underway for a long time.[91] Navon also stresses that it is easy to dismiss conservatoires as essentially conservative; their historical genealogy is, after all, one characterised by musical transformation (2020: 91). He nevertheless argues that 'the historical record instead makes clear that the pedagogies discussed [...] have been added to and contested since their inception – less a sign of weakness than of their enduring relevance for classical musicians*'* (Ibid.). These institutions' conservation function cannot be simply or completely dismissed; some of these pedagogies have persisted throughout transformations and innovations.

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90 Also the nineteenth-century culture of the virtuoso and instrumental virtuosity might have played an important role in this increase in technical proficiency (Cvejić, 2016).

91 The Innovative Conservatoire (ICON) was initiated in 2006. It is an international network in the performing arts, bringing together dozens of European conservatoires (Gaunt, 2013: 52). 'ICON develops experimental workshops and laboratories, at the intersection of artistic practice, education and research, to enable professionals to develop and change their practice today's society' (Dorigo, n.d.). See also the Polifonia Research Working Group (2010).

In his seminal ethnography on the Eastern Metropolitan Conservatory of Music in the US (1988), Henry Kingsbury finds that social order is crucial to the long-standing pedagogies of the conservatoire. Musical values, he argues, are the results of social and cultural processes:

> The conservatory is an environment in which musical terms are negotiated, largely in terms of the preceding configuration of musical contexts, with great intensity and on a daily basis. A music conservatory is a place where musical disagreements are continually being negotiated toward consensus, and where consensus is in turn continually breaking up into contention. (Kingsbury, 1988: 17)

Social organisation is not merely the 'underbelly' of artistic processes and ideals but a vital part of how music is transmitted and maintained over time: 'The social dynamics of the conservatory are of fundamental importance to the aural tradition of 'classical' music' (Ibid.). Kingsbury's work remains remarkably topical today – for example, when compared to Bull's (2019) more recent insights and reflections on classical music education in white middle-class English youth culture; she observes that social inequalities in cultural production are deeply intertwined with the practices that are used to create the aesthetics of classical music (p. xiii). This becomes visible, for example, in how the embodied modes of these practices reproduce gendered and classed values such as female respectability, or how the aesthetic of detail of classical music requires a long-term investment that cannot be afforded by just anyone.

In these practices and traditions, material objects play a vital role, yet the instruments themselves remain surprisingly invisible in ethnographic writing on music education. An exception to this is the work by Lisa McCormick, who, in her ethnographic research on classical music competitions (2015), shows that instruments are (and have been) deeply related to issues of access, social order, and power hierarchies in music education and therefore subsequent career paths. She highlights, for example, how the ability of string players to bring their own instruments to competitions (in contrast to piano players) often results in inequalities and competitive disadvantages that need to be negotiated by the jury:

> In the interest of fairness, some competitions have begun to take into consideration that not every competitor will be playing on a Stradivarius and that ignoring this disparity would introduce a bias against competitors from countries where economic or political conditions have made decent instruments hard to acquire. (McCormick, 2015: 135)

The famous Rostropovich Cello Competition, she exemplifies, has implemented instrument inspections resembling the medical examination of participants in the Olympics. The competition's luthier provides the jury with assessments of the instruments to consult during their deliberations.

One might argue that competitions present situations different from those in ordinary conservatoire life, but competitions are very much part of studying at the conservatoire; regularly, the repertoire on students' plates is guided by upcoming competitions. Also in the students' studies more generally, instruments play a crucial role: they are objects of musical and social prestige. Izabela Wagner, in her ethnography *Producing Excellence: The Making of Virtuosos* (2015), finds that the instrument is vital to a musician's career prospects. She shows how young violinists obtain, test, and lend instruments, illustrating that instrument choice is a highly strategic undertaking dependent on (among other aspects) the type of career that students desire to pursue (Wagner, 2015: 161). If they want to be a soloist – which, she argues, much of the conservatoire's pedagogies are still directed at – obtaining a prestigious and good-quality instrument is required. Many students do not have the resources to acquire one, given that

> a prestigious violin, in general, is an instrument around two hundred years old that has been played without interruption. […] Several of these prestigious old instruments have a famous past – bonds with historical personalities such as royal families, aristocrats, politicians, or famous artists. Their symbolic value is endowed by the violinists who played them. (Wagner, 2015: 169)

Wagner's quote hints at how instruments themselves connect to tradition, by being part of musical histories, by being connected to particular personas, or circulating in specific networks. Instruments are material and tangible actors in the tradition of classical music, actively engaging in the production of musical value and aesthetics over time.

A primary element of conservatoire teaching and learning in which this is especially visible is the tradition of one-to-one tuition, meaning the instrumental lessons between a teacher and their student, which are of an individual and personal nature. Helena Gaunt (2013) argues that the stability of the conservatoire and the persistence of its pedagogies revolve and derive from the nature of the musicians' knowledge 'being tacit and non-verbal', making one-to-one tuition the primary means of musical teaching and learning (p. 50).[92] Yet daily teaching and learning, Gaunt and Heidi Westerlund claim (2013), are still under-researched – despite the finding that such master-apprentice models enforce the separation between theoretical and practical work (p. 2). They call for investigating 'the routines of canonized professional interactions', to 'unveil these reflective practices for instance through research, explicit negotiation and extended discussion' (2013: 3–6). Conservatoires do not only engage in canonising music; they also engage in canonising particular teaching pedagogies and models.

In the next section, I will investigate what one-to-one tuition looks like, what academic scholarship has found out about this teaching model, what aesthetic and practical ideas are behind it, and which consequences it has.

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92 A criticism of the conception of musical knowledge as tacit is offered by Ingold (2019). I will turn to this in section 7.4.

7.3 Teaching and learning in one–to–one tuition

At the average European or North American conservatoire, one-to-one tuition is only one (admittedly small) part of students' curriculum. This type of teaching comes in the form of individual meetings between student and teacher, which take place regularly over the course of an academic year. Depending on the availability of the teachers – who are, commonly, performing and hence travelling musicians – this means meeting once a week or every other week. Gaunt and Westerlund (2013) claim that one-to-one tuition is the 'bedrock of higher music education' (pp. 50–51). However, it remains 'largely behind closed doors, a private affair handed down individually from master to student' (Ibid.). Students often aspire to work with certain teachers, for example because they admire their music. Hence, teachers play a major role in the students' decision-making process of where to study. Student and teacher often spend years together, depending on the duration of the study programme in which students are enrolled, yet the relationship can extend beyond the immediate institutional context. Teachers might also be gatekeepers for the students, helping them network.

Consequently, the relationship between students and their teachers is very intimate. This aspect can have positive and negative effects on both students and teachers (Bull, 2019; Collens & Creech, 2013; Gaunt, 2009). Misuse of trust, dependency, and abuse benefit from the private nature of such lessons. Yet the relationship is often understood by practitioners as indispensable: one-to-one teaching is the main way to develop musical ability, and is argued to have a positive effect on learning and identity formation (Bull, 2019). Kingsbury (1988) observes that the student-teacher relationship rests on the principles of political patronage and pedagogical lineages, both of which are indications of musical authority (p. 45). This means that, for both student and teacher, the relationship presents a source of social and musical capital. While teachers profit from successful students, studying with a particular teacher might grant students recognition and help them position themselves within a musical tradition (Kingsbury, 1988). How important these lineages have become can be seen with the listing of teachers in musicians' biographies – for example, in concert programmes. Kingsbury writes that

> the importance of all this name dropping, it must be emphasized, is to present each faculty member as the individual conservator of a distinct and distinguished musical heritage. The implicit message is that if one studies with a particular teacher, then one steps into a particular line of musical descent. (1988: 45–46)

One-to-one tuition is, therefore, one of the main teaching formats at the conservatoire in which musical tradition is reproduced and practised in action. Whereas Gaunt and Westerlund (2013) emphasise the teachers' role as facilitators and co-learners, other scholars have focused on how they are gatekeepers of these traditions and their networks (Bull, 2019;

Kingsbury, 1988; McCormick, 2015; Wagner, 2015). Moreover, Gaunt (2009) criticises the lack of integration of one-to-one tuition into the rest of standard conservatoire curricula, which results in lessons taking place 'in a special and separate world' (p. 200). Also Gaunt and Westerlund arrive at the conclusion that the master-apprentice model, in which 'tricks of the trade' are handed down aurally from one person to another, results in diminished opportunities for exchange, broader collaborations, and interdisciplinary work (2013).

This is further problematised by the fact that the teachers are not merely employed for their teaching abilities, but because of their performing abilities and reputation (Bennett, 2008: 63). It is not uncommon that these musicians have no special qualifications or training for teaching, lest the opportunity or time to further develop themselves in the teaching role (Gaunt, 2009). Performing expertise is more important than teaching expertise, and long-term evaluation usually shows in the success of students – for example, by obtaining concerts, winning competitions, and surviving auditions (Gaunt, 2013: 51). A successful or good performer has obtained the authority to teach difficult repertoire; musicality, artistic vision, and charisma become important criteria for authority and leadership (Nisbett & Walmsley, 2016). McCormick (2015) further notes that the patronage-style system relies on trusting particularly charismatic figures to 'determining how best to serve the art of music' (p. 5). While many performers make great teachers, music education scholars have observed – and as many students in the history of music education have painfully witnessed first-hand – that a good performer is not automatically a good teacher.

Conservatoires struggle to monitor one-to-one tuition, due to the private and intimate nature of this teaching system. However, from a scholarly perspective, one-to-one tuition is rather well researched. Gaunt (2006, 2009), for example, offers an in-depth literature review on one-to-one tuition, with studies reaching as far back as into the 1970s, observing student-teacher interactions, student participation, musical development, or the nature of feedback and instructions (2009: 178–180; see, for example, Mills, 2002, 2004, 2006). Gaunt highlights the often contradictory findings in these studies, further emphasising the individuality and situatedness of the arrangements and pedagogy. Despite such studies highlighting the importance of one-to-one tuition in music educational contexts, she also criticises its consequences: a lack of transferability of skills, the inability of students to develop learning strategies independently, and an overdependence on the teacher (Ibid.).

Bennett highlights that one-to-one tuition still perpetuates the idea to train mainly soloists. She argues that classical music education is 'too focused on the art and not enough on the business, social and cultural conditions that performers must be a part of' (2008: 71). Bennett questions the underlying idea that mastering the art and being a great performer suffices for a good and satisfactory career. While she admits that the emphasis on performance skills may respond to the competitive nature and high standards of the profession, she observes that only for a few graduates will (soloist) performance constitute a major source of income (Ibid.). This hints at the paradox of one-to-one tuition in making music:

whereas individual or even solitary work takes up significant space and time in higher music education, music is collaborative in nature, containing various non-performance tasks and chores (Sennett; 2008; Small, 1998). Often, one-to-one tuition is argued to be the precondition for the collaborative endeavour of making music.

But what happens in one-to-one tuition? Gaunt observes the following common structure: 'a brief warm-up or chat, the student playing a study or some repertoire and then detailed comments and technical or musical work on the material' (2009: 199). Lessons rely on both verbal and embodied communication – for example, when teachers explain or demonstrate how a passage should sound. Sociologist and cellist Richard Sennett notes that in the case of rehearsals, the short amount of time necessitates economic ways of telling, meaning that stories and metaphors occupy important space (2012: 17). I would argue that this is equally valid for one-to-one lessons. This general structure is largely accepted as normal by students and teachers, with a lack of variation highlighting 'the self-replication of this tradition of tuition' (Ibid.). Yet this practice can hardly be understood as 'self-replicating': a lot of work and effort goes into upholding this tradition or convention. It is rooted first, as explicated above, in the separation between *Technik* and *Vortrag* (cf. Navon, 2020), or what Kingsbury calls 'technique' and 'musicality' (1988). Navon finds that tuition in the nineteenth-century Leipzig conservatoire, for example, underlined how teaching was a matter of transforming students 'into analyzers and interpreters of musical works' (2020: 87–88). In reiterating one of the few surviving student accounts (by the pianist William Rockstro), Navon traces how Felix Mendelssohn's pedagogy – at that time piano teacher at the conservatoire – was shaped by and shaping classical music's aesthetic philosophies. Similar to today, a thorough dissection of the music – for example, by focusing on single chords or passages – constituted a foundational practice of teaching and learning. Mendelssohn did engage with one student at a time but taught, generally, in a group not unlike today's format of the master class. This means that students learned canonical works by observing other students' performances and Mendelssohn's critiques thereof, yet Navon argues it is crucial to understand that this structure still allowed the training of students 'without sacrificing the individualized back-and-forth process of criticism, suggestion, and emulation' (2020: 89).[93] In this process, '*Technik* became an object of Mendelssohn's teaching precisely when he addressed how specific passages of the work at hand might be rendered' (Navon, 2020: 88). Understanding *Technik* is decisive and necessary for a successful *Vortrag* and underlines the purpose of the classes to teach students in interpretation. Students were seen as most competent when 'their playing demonstrated technical facility in combination with an implicit understanding of a piece's musical content' (Navon, 2020: 89–90). Also McCormick argues that

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93   Notably, also today it is not unusual for students to sit in on other students' one-to-one lessons, particularly when they are working on the same repertoire. I frequently encountered this in my fieldwork at the Conservatorium Maastricht, where classmates would attend each other's lessons – equipped with notebook, score, and pencil – ready to soak up information and hints that might improve their own performance and understanding of a piece. However, these students remained largely invisible in these situation, with the teachers continuing to focus on the student in question.

> for musicians, the technical aspects of musical performance are never simply practical solutions to navigating an instrument. They are the means through which musicians embody an interpretation of musical structure: 'To adopt a fingering is to take up an interpretative stance in relation to the music in question' (Cook 1990: 81). This principle applies equally to every technical decision, from bowings and articulation to tempi and phrasing. (2015: 140)

The score of the musical piece plays an important role in this relation between technique and interpretation, as it provides the basis on which student and teacher are working. Kingsbury (1988) notes that in this constellation, the score presents an authoritative text, yet it is first and foremost the teacher who determines its relationship with performance: 'The authority of the score is contingent on musicological (printed or spoken) verifications of its authenticity and on 'authoritative' performances perceived to be in keeping with the score's indications' (p. 92). The relationship between musical performance and score is therefore not fixed, but indeterminate and problematic, up to the teacher – and student – to negotiate. Moreover, teachers often dictate which edition of a score students should use. Editions that contain extraneous editorial markings stand in contrast to the so-called urtext editions, which remain unedited by the publishers. The question of authenticity, fidelity, or *Werktreue* is a contingent one, as markings and editions can be legitimised as well as contested by teachers and students (Kingsbury, 1988).

In the classroom, this boils down to the testing of particular musical passages, which is, according to Sennett (2012), standard practice also in bigger rehearsals (p. 16). He compares this situation to philosophy seminars, with musicians investigating musical problems on a 'forensic' level in order 'to find and work on telling significant specifics', pointing back to the entanglement between technique and interpretation (2012: 17). Whereas Sennett (2008) views these processes as part of musical craftsmanship, Bull (2019) argues that the investment of time and effort into learning this repertoire primarily serves to distinguish classical music as a higher art form from music as entertainment (p. 42). She criticises Sennett's idea of craftsmanship in the context of classical music, in which he foregrounds the willingness to experiment and make errors in order to 'get the music right': in fact, Bull says, these aspects receive much less room than Sennett claims (Bull, 2019: 75). She highlights how learning relies on dynamics of an ethics of (self-)correction (Bull, 2019: 75–78). Playful curiosity is replaced by the obligation to constantly clean up and fix (the association of mistakes with dirt, she argues, is by no means a coincidence). One-to-one lessons, rehearsals, and practising become channels of correction that perform not only a musical, but a moral function. What Sennett calls a process of investigative repetition (for example, when learning musical passages) is, according to Bull, 'quashed beneath teachers asking students to do things in specific ways' (2019: 84).

As one-to-one tuition 'remains key to the education processes in most conservatoires and many music departments', it is important to investigate the role that musicians and

their bodies, as well as their instruments, play in these teaching and learning contexts or settings (Gaunt, 2009: 180). In the next section, I will make a claim for looking closer at the intertwinement of musicians' bodies and their instrument *together*, and the role that this intertwinement may play in teaching and learning.

7.4 Musicians and instruments together

One result of the aesthetic philosophy of classical music's *Werktreue* relevant for teaching and learning contexts is the idea of the musician or performer becoming a transmitter of the transcendent artwork. Bull (2019) highlights that the disciplining of the body in classical music reaches back to Christian thought, in which the sacred is located outside the body, and in which the fleshliness of the human 'does not make sense and must be effaced' (p. 24). The body as a potential source of corruption must be left behind, become invisible (Bull, 2019: 111).

Bull notes that there are plenty of mechanisms in classical music that ensure that the body is noticed as little as possible. These consist, for example, of policing movement, wearing black during performances, and the cultivation of controlled excitement (2019). The aesthetic of the nineteenth- and early twentieth-century Romantic repertoire trained particularly orchestral musicians to adhere and adapt to such bodily modes (Bull, 2019: 111). While this is certainly the case for musicians in symphony orchestras, Bull's insights might not be valid for all classical music genres; in opera, for example, the performers' bodies are a source of spectacle, emphasised by laboriously crafted costumes. Soloists' wardrobes – particularly those of female musicians, as seen with the example of Chinese pianist Yuja Wang's colourful minidresses – are frequently the subject of heated debate. Also McCormick (2015) highlights the gendered dimensions of how female musicians have to navigate expectations of their gender and bodies carefully:

> Appearance is not the only aspect of performance in which a delicate balance of femininity must be found. In terms of their playing, female musicians garner praise less for being genderless at the instrument than for achieving a desirable combination of masculinity and femininity. (p. 153)

Yet the (in)visibility of a musician's body stands in a paradoxical relationship with the high technical level that these musical pieces require. A considerable amount of labour is necessary to make the body behave in classical music, and to become able to perform complex techniques at all. Bull underlines that learning to play an instrument and performing a work is, to a significant extent, about making it look effortless. The physical and mental labour that these pieces demand from the musicians is not supposed to show in performance (Bull, 2019: 81). Connected to this, sport analogies and comparisons between musicians and athletes have

become increasingly prominent: not unlike athletes, musicians engage in constant training, coaching, and practice, which requires physical health, agility, flexibility, coordination, and endurance in order to improve performance. The sport analogies also connect to a high degree of specialisation and skill required for the practice and the performance, as well as its standardised and embodied modes of operation (cf. Sennett, 2012: 210). This has resulted in a growing body of research into the physical effects on musicians of making music (Baadjou et al., 2015, 2017). Although the comparison offers room for debate, it is helpful to understand notions like discipline and diligence as closely related to the body in classical music.

Yet the act of watching the body and being watched plays an important role in classical music, as Richard Leppert (1993) argues. Although largely untheorised, Leppert's claim is that the visual-performative aspect is vital to the making of musical meaning. McCormick adds that classical musicians are 'notorious for downplaying this aspect of performance', but bodily display, including clothing, facial expressions, and gestures, affect the reception or assessment of a performance (2015: 142). These visual aspects imply and stimulate interpretative nuance – despite musicians claiming, as McCormick finds, that the highest priority is 'the music itself' (2015: 143–144). 'The performer's body is itself a text that is read by audience', and one which is connected to cultural and musical expectations, perceptions, and judgements (McCormick, 2015: 147–148).

Yet it is not only the human body that matters in these processes. McCormick argues that the performer depends on the material properties of their musical instrument to create meaningful visual and gestural display. Some instruments, she observes, allow for more symbolic power than others; she uses the example of a virtuoso organ player, a disappearing phenomenon due to the performer's body increasingly hiding from view (2015: 149). The visual display is only one of many aspects in which performers are dependent on their instrument. Leppert's and McCormick's arguments connect to a question that Ingold asks with help of the critical post-humanist writings of Jane Bennett (2010): 'Why would humans have more agency than things?' (2013: 96) In contrast to Bennett and Ingold, I am not so much concerned with the question of agency, but with approaches and ideas that can help us rethink and expand our understanding of the role that musical instruments play in education and performance. It is particularly Ingold, I believe, who provides crucial insights into how musicians and instruments *are together*; whose work can help to exceed the idea that instruments are mere extensions of the human body in need to be mastered.

One way to demonstrate this togetherness is, for example, to think about how instruments affect bodies. As a cellist, Sennett (2008) offers a vivid example of this. He argues that the calluses that some instrumentalists (for example, string players) develop through being in touch with the material do not reduce sensitivity, but that they in fact allow for greater sensitivity (2008: 151–153). The calluses enable players to fully commit to bringing their fingers down to the strings; Ingold adds that probing and treading becomes less hesitant because of the calluses (2013: 114). Calluses, bruises, spots, and many other marks or

physical capacities remind us that the instrument is not merely an extension of the body; rather, it is *with* the body, affecting it in all sorts of ways.

What does it mean, then, to *be with* an instrument in the context of musical learning or playing? Issues of embodied learning and knowledge production – meaning the relationship between cognition and the body or embodiment – have been popular subjects of psychology and this field's broader theories of learning (Alerby & Ferm, 2005; Bresler, 2004; Leman, 2007; Leman et al., 2018; Lill, 2014). Together with anthropologists interested in arts and crafts, like Ingold, such approaches tend to challenge the traditional Cartesian mind-body distinction. They shift focus to how thinking is always mediated, as Petra Gemeinboeck argues: 'thinking with the world is always situated, relational, and materially anchored' (2020: 150). Embodied learning processes or knowledge production processes have often been described as tacit to signify the inexplicability or inability to verbalise such embodied knowledges. Ingold (2019) challenges the idea of the tacit. He criticises the binary between the explicit (verbalisation) and tacit (embodiment), and argues for the notion of hapticality, which he borrows from Stefano Harney and Fred Moten, who describe it as 'a feel for feeling others feeling you' (2013: 98). Whereas the 'tacit' blackboxes bodily interaction, hapticality attends to the complexities of feeling and being felt:

> Where the tacit is silent, the haptic is noisy; where the tacit is embodied, the haptic is animate; where the tacit is sunk into the depths of being, the haptic is open and alive to others and to the world. Nor need this be limited to the sphere of human relations. Other kinds of beings, or other phenomena, make their presence felt in manifold ways, and we should attend to them too. (Ingold, 2019: 9)

With this notion of hapticality, Ingold leaves behind the clichéd idea of craftspeople or musicians thinking 'through' their hands or fingers. What really happens, according to him, is that thinking becomes 'a bundle of kinaesthetically attuned movements' that are – in contrast to the idea of the buried, silent tacit – overflowing and unruly, unfolding only in relation to the world and its things (Ingold, 2020: 215). Feeling and attention play a vital role in these kineasthetics, which, rather than describing mere interaction between player and instrument, characterise what Ingold calls 'correspondence' – a notion that describes the attentive and affective responsiveness and attunements of player and instrument towards the world (2013: 108; 2020: 206–207). The habits and accomplishments of musicians are therefore not so much 'sedimented' in the body but generated and enacted in correspondence with instruments and environments. This correspondence rests in attending, rather than intending (Ingold, 2013: 25; 2018). Through such understandings, Ingold rejects describing the mind, body, and world as merely 'overlapping circles' (2019: 12).

This latter point is also reflected upon by Lambros Malafouris (2020), who uses the parable of a blind man with a stick to argue that the split between the mind and the mate-

rial world is a limitation rather than an explanation. He calls to redraw the boundaries that separate things, bodies, and minds through a 'material engagement approach' (p. 119). For Hélène Mialet (2020), this results in what she calls the 'distributed-centred subject' (p. 131). Mialet uses this term to signify that instruments and machines are not extensions, but that they (materially and cognitively) constitute the subject (2020: 131). This relates to the critical post-humanist work of Gemeinboeck (2020), who sees material enactment as opening up non-human ways of bodily thinking. Things become bodies themselves as they have a presence of their own, assuming and eliciting relations and responses from other bodies (Gemeinboeck, 2020: 159). Yet it is important to note that these authors do not argue that mind, body, and things are the same thing: being a body, Gemeinboeck underlines, does not mean becoming a subject; and while entities might constitute each other, 'mutualities are not necessarily symmetries' (2020: 163). The question of agency, and who has agency over whom at which point in time, might, however, not be the most productive one to ask. Rather, these approaches aim to 'complicate subject–object difference, rendering the boundary relational and dynamic, and by doing so, opening up a new playground for humans and machines' (Gemeinboeck, 2020: 164). Also in making music, new insights might rest in examining how musicians and instruments become together through their relations to each other (and the world). This concerns particularly the question of how classical music exists through time. In Chapter 8, I will explore how the relationship between musician and instrument affects the continuing existence of classical music and its traditions, and I will draw attention to the neglected dimensions in this embodied relationship with help of the theory of the archive, archival potentiality, and actualisation.

These neglected dimensions connect intimately to Ingold's own as well as to the other authors' ideas. They become visible in the following excerpt from Ingold's text, in which he gives an account of his own cello playing:

> Body and instrument are tightly conjoined into an anatomical unity. Yet in the moment I begin to play, something else happens. The instrument itself seems to explode into its constituent materials – of wood, varnish, metallic strings, bow hair, rosin and resonant air. Nor is it only the instrument that explodes. I do too! I am no longer a body with mouth, hands, arms and ears; rather my entire body, in its movements and sensibilities, becomes mouth, hand, arm or ear. I am mouth-body-becoming (breathing), hand-body-becoming (fingering), arm-body-becoming (bowing) and ear-body-becoming (listening). I often dream about my cello, and a persistent theme is that the instrument has literally fallen apart, along with what I experience as the disintegration of my own corporeality. The cello is in pieces and so am I. I used to be disturbed by these dreams. But I now realize that they re-enact the very conditions of performance. For only by breaking apart the therianthropic[94] unity of body and cello can it be put together again,

94   'Therianthropic' here describes a 'shapeshifted' form that unifies or incorporates a combination of human and cello.

> not organically or anatomically, but quite differently, as a bundle of affects. Where body and cello had been joined up, as a totality of parts, wood, varnish, metal, hair, rosin and air join with mouth, hands, arms and ears in the generation of atmospheric sound. (Ingold, 2020: 209)

Ingold's description vividly evokes the ideas of correspondence and kineasthetics, and how it *feels to become together*. This unity, he claims, is not anatomical or organic but affective and enchanting (2017: 456). It roots in the constant movement of material flows that override or seep through the engaged bodies, an interchange which is characterised by a constant unfolding that constitutes thinking (Ingold, 2013: 95). Thinking becomes material activity in which nothing is connected in finality, meaning that playing an instrument can unsettle, de-position, and expose (Ingold, 2019: 217).

In this process, Ingold stresses that the musical work is not merely an object that needs to be performed. Rather, the work becomes a way of perceiving (oneself in) the world (Ingold, 2018: 457). Viewing the material engagement between player and instrument from this perspective might open up long-standing notions of transmission and performance, learning and teaching, and the relation of these practices to ideas such as *Werktreue*. As player and instrument become together, the work becomes entangled with them. Ingold's theory contests the idea that there could ever be such a thing as a 'finished' work; rather, musical works can become a means of perceiving, of becoming within and with the world.

To conclude, instruments are not mere tools to transmit a transcendent art form. What would happen if, instead, we tried to understand them more as 'significant others'? Ingold's recurring dream of his cello breaking apart is just one example of how musicians recognise instruments as part of their own self, their body, and their mind; how they learn to identify with them and how they commit to them. As Bull notes about one of the participants of her ethnographic study, 'Jonathan's instrument, like those belonging to many of my participants, had a history and an identity of its own, as well as being a part of his own sense of self' (2019: 71). When Ingold jokes about his cello's moodiness, its fluctuations in sound, it is as if he writes about a friend (2018: 452). Or take Ruth Benschop's (2010) reflections on meeting her cello for the first time:

> I was able to rent a cello from a lady through the grapevine and went to pick it up. She had been playing all her life and was amused by my questions. How should I transport it? How to take care of it? Should it be in a case at home or not? I felt intimidated by the status of classical music I could take home on my bicycle. It was not tuned, she said. (p. 79)

If we started looking, we could find many stories such as Ingold's, Bull's, or Benschop's; they are not exceptional, but they are instructive. Ingold notes that 'we have come a long way from Bourdieu, and from his understanding of the habitus as a set of dispositions that both generate

the mastery of the skilled practitioner, and are in turn generated by it' (2019: 12). Maybe now it is time to examine the radar of conscious awareness in close detail: the forms it takes, the materials it engages, the affects it gives rise to. Looking at this material engagement, I believe, can change and deepen our understanding of how we relate to classical music.

The embodied relationship between musician and instrument – and the process of becoming together through this relationship – is also relevant from the perspective of the theoretical framework of the archive, archival potentiality, and actualisation. This framework can assist in further exploring the dimensions of this embodied relationship presented in this chapter, and the implications they have for the actualisation and conservation of this music. Importantly, this archive rests neither in the musician nor the instrument only; rather, it rests in their intersection and their ongoing engagement, meaning their embodied relationship. Therefore, this archive might be considered as constantly changing, as these bodies and their relationship change over time. Compared to the other case studies, this archive is literally incorporated. What potentialities rest in this embodied archive, and how are they – and how might they be – actualised? Importantly, processes of actualisation might be shaped by the situatedness of this relationship in particular musical pedagogies, the changing particularities of human and instrument bodies, and other contexts of performance and playing.

These are issues I attempt to explore empirically in my next chapter, which presents the last case study in this book. In it, I explore how the relationship between cellist and cello creates and enacts an embodied archive of classical music and its traditions, and how this archive relates to the insights presented in this chapter.

8

'The feeling of having it here': Embodying tradition in and through human–cello engagements

8.1 Embracing wood, varnish, and metal

> You know, there are some days on which I really feel the need to feel the strings under my fingers. And there are some days in which I really – pah! I don't even want to see it. [laughs] I think it has… a physical place in your life. Maybe we don't care enough about this. […] That's why you miss it like someone. The feeling of having it *here*. [She points to her chest and hugs the cello, which still rests between her legs and her arms.] (Cello student 8, interview, 2019[95])

This quote by a young female cellist, who studied at the Conservatorium Maastricht at the time of my research, presents one facet of the intertwinement between cellists and their instruments. The student describes how her cello does not only play an important part in routine musical activities – such as practising, performing, or carrying the instrument around – but rather, how the intimacy of this relationship has become especially visible in times of absence. The feeling of having it 'here', as she expressed by pulling her cello to her chest, illustrates a physical but also an emotional proximity. She speaks fondly, tenderly of her instrument; she has become attuned to it. In this chapter, I examine the entanglements between musicians and their instruments – more specifically, cellists and their cellos. What role does the instrument, and the musicians' relationship to it, play in how practitioners learn to perform musical works, and what does that mean for how this musical traditions exist over time? Here, issues of conservation and change lie in the material engagements that cellos and practitioners participate in together; this includes both the physical and affective dimensions of how this relationship is *embodied*. The question of how cellists and cellos relate to this tradition also touches upon how this embodied relationship might be theoretically understood as an archive of this music and its tradition. How do musicians and instruments become part of classical music tradition? It also asks how this embodied relationship might give rise to particular

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95   More detailed information on the interviews – such as date or place – can be found in Appendix III. I numbered the cello students chronologically according to the date of the interview for the sake of anonymity. I did the same for the teachers. While I – and the teachers themselves, who initially agreed to appear in this thesis with their names – are aware that this anonymity cannot be fully guaranteed, I chose to do so to minimise the possibility of the students being recognised by others.

mechanisms or modes of actualisation. The framework is thus a heuristic that helps me attend to human-instrument (cellist-cello) relationships and to interrogate how these relationships keep classical music and its traditions alive, as well as how these might change over time. After all, like any relationship, cellist-cello engagements are the locus of desires, struggles, and motivations – and like any relationship, they transform over time.

Also clarinettist Shannon Draucker of the Boston Symphony Orchestra has commented on physical absence, of no longer being able to 'move together, exchanging breath, sweat, and even spit' due to the Covid-19 pandemic (2021). She argues that a critical discussion of the role of human bodies has been neglected in classical music's past – and that this has resulted in the reproduction of classist, racist, sexist, and ableist traditions. My aspiration in this chapter is not political, although certainly more research is needed in this area, as scholars like Bull (2018, 2019), Bull and Christina Scharff (2017), McCormick (2015), and Wagner (2015) have shown. Rather, I borrow Draucker's recognition that human bodies play a crucial role in the maintenance, upkeep, and rehearsal of this music's tradition. Crucially, however, there are not only human bodies in practice rooms and across concert hall stages. Emily Payne and Floris Schuiling (2017) remind us that 'performers can have extraordinarily intimate, fruitful, and perhaps most importantly, *reciprocal* [emphasis added] relationships with their materials' (p. 464). In this chapter, I consider this reciprocity with an eye to the instrument.

One aim of this chapter is to challenge the assumption that the musicians' bodies are mere mediators or tools to transmit a transcendent, universal art – a view that I encountered frequently in my fieldwork at the conservatoire. Instead, I am guided by the endeavour to discover how classical music resides in the relationship between bodies and instruments, proposing that it is crucial for the performance, practice, and reproduction of classical music. While they are 'sites' of living classical music tradition, I was surprised to observe how much negotiation and adaptation of the practice happens between these bodies, and how change – of the music and how it is played – seemed to easily coexist with traditionalist views on the performer's body and the role of the instrument. This further incentivised me to look closer at, as the Belgian philosopher Vinciane Despret articulated in an interview, a 'sociology of relations' between humans and non-humans (Buchanan, Chrulew & Bussolini, 2015: 173).

As prepared in the previous chapter with the help of Tim Ingold (2013, 2017, 2019, 2020), Petra Gemeinboek (2020), Lambros Malafouris (2020), and Hélène Mialet (2020), my endeavour is inspired by critical post-humanist understandings of human-'other' relations. This includes feminist work about animals such as Donna Haraway's *The Companion Species Manifesto* (2003), in which she examines the bond that resides in the 'significant otherness' of people and dogs throughout their joint lives, arguing that companion species are not 'merely surrogates for theory' or to 'think with', but to *live* with (p. 5). By examining stories of humans and dogs emerging together, Haraway's manifesto made me wonder how instruments might be viewed as a companion species, and how a human enters a

relationship with a musical instrument. Joanna Latimer's (2013) critique on Haraway's reflections also proves relevant. She proposes that understanding humans and animals as being 'alongside' – rather than 'being with' – can draw attention to the intermittency and partialness of their connections and disconnections (p. 98). Related to this, also Despret's work on human-animal relations and ethology (2013, 2016) needs to be mentioned; in particular, her investigation of the concept of 'embodied empathy' between scientists and animals in the field, which she uses to describe how these 'feeling/seeing/thinking bodies undo and redo each other, reciprocally though not symmetrically, as partial perspectives that attune themselves to each other' (2013: 61). Despret also inspired me with the imagination and playfulness of her questions, such as 'Do birds make art?' (2016: 117) Last, Jane Bennett's *Vibrant Matter: A Political Ecology of Things* (2010) has significantly influenced my thoughts for this chapter, as it shows how inanimate materials and things supposedly affect, shape, and change humans. It is important to note that musical instruments are not animals – they lack the quality of aliveness that would enable me to rely on these literatures. Yet this scholarship has led me to want to provide space in which I can think of musical instruments as 'significant others'. There are a few reasons to do so: instruments change, adapt, and behave in specific ways. Of course, they do not do so by will but in response to their environments, including humans. Moreover, while they may not have lives or be alive, they do have histories of their own. Last but not least, musicians can have undeniably deep and meaningful relationships with their instruments – both on a physical as well as on an affective level. Although this relationship is not symmetrical, it does exist, and it shapes musicians' relationship to the musical works and traditions.

I have observed these aspects in my fieldwork, and as an amateur cellist, I have experienced them myself. Just like Draucker (2021) has criticised the neglect of the physicality of the human body, I criticise the neglect of the situated physical and affective relationships between musicians and their instruments. The student quoted in the beginning of this chapter revealed to me – after much hesitation, it seemed – that she had named her instrument. It was a 'he' and his name was Marcus; she had chosen it after the Roman god of warfare, Mars, because of the cello's reddish, fiery colour (cello student 8, interview, 2019). She seemed embarrassed. The idea of being attached to an object can be viewed as irrational or foolish, and musicians are generally expected to be able to perform their craft willingly on any given instrument. To me, this moment in our conversation demonstrated that there are aspects in this human-cello relationship which are hidden from plain sight. To many musicians, their instrument matters a great deal when learning or performing the craft. Yet this is commonly eradicated from view, made invisible, through the ethics of transcendence in higher music education. After our conversation, I wondered for the first time: what would happen if we start to take these entanglements seriously, and look at them closely? What does it mean to spend hours of your day together with an instrument, practising a musical tradition? And what might this tell us about tradition and processes of (musical) craftsmanship?

Helen Holmes, for example, opts for opening up the notion of craftsmanship by criti-
cising Richard Sennett's (2008) 'nostalgia for a romantic craft past' (2014: 5), meaning his
'ancient model of craft, complete with guild, workshop, master and apprentice' in which
the craftsperson is a respected, celebrated, and empowered figure (p. 61). Instead, Holmes
argues for a more transient, less tangible mode of craftsmanship that moves away from
historically entrenched understandings of craft. With the help of the example of hairdress-
ing, Holmes shows how flexible and transient and unstable craft work can be, and how the
notion of craft might become more inclusive if, for example, considering 'service-based,
low- service-based, low skilled and female-dominated professions, such as hairdressing'
(2014: 14). Especially from a conservatoire student perspective, craft can stand in contrast
with empowerment and emancipation. It presents considerable physical and mental chal-
lenges, as well as a precarious balancing act of different expectations and ideas. According
to Holmes, in Sennett's work, the concrete engagements and experiences of musicians
playing and practising their instruments are simplified at best and generalised at worst.
Examining the embodied relationship between cellists and cellos might deepen our under-
standing of ideas and processes about craftsmanship in classical music, and how this
craftsmanship might be both conserved and innovated.

I have examined the intertwinement between cellists and cellos at two sites and, due
to the pandemic, both online and offline: the Conservatorium Maastricht and the Cello
Biennale 2020 in Amsterdam (but broadcasted live online and on Dutch national radio).
Whereas the conservatoire presented a fitting environment to study how students, teachers,
and instruments learn and teach traditions together, the Cello Biennale offered, to some
extent, a leap towards more alternative forms of human-cello engagements. Yet both sites
are homes to one bigger community of practice (Lave & Wenger, 1991; Wenger, 1998), at
least according to Helena Gaunt and Melissa Dobson's (2014) definition, in which 'a com-
munity of practice is essentially formed by a group of people who have a shared passion
or concern about what they do' (p. 301). Based on Étienne Wenger's (1998) seminal work,
communities of practice bring to light 'mutual engagement, a joint enterprise, and a shared
repertoire of ways of doing things' (Wenger, 1998: 49, as cited in Gaunt & Dobson, 2014: 301).
Although communities of practice can potentially revolve around anything, instruments are
a particularly fitting subject for strong communities of practice. The cello is no exception to
that, with a long-standing history in which its design and ways of playing have continually
evolved to the instrument we know today, and which has remained remarkably stable at the
same time (Stowell, 1999). Although this chapter will revolve around unique features and
engagements with cellos and cello repertoire, it will also enable me to learn about musi-
cian-instrument engagements more generally.

In the next section, I will begin to investigate these differently situated human-cello
interactions, starting with the Conservatorium Maastricht. I will first explore the interactions
in one-to-one teaching settings and practices, before investigating the relationships between

the conservatoire students and their cellos. These two sections are based on my fieldwork at the conservatoire, meaning that they are embedded within contexts of learning and teaching in higher music education. After this, I will scrutinise alternative engagements between cellists and cellos, as witnessed at the Cello Biennale 2020: first in the event's National Cello Competition, and then in an exemplary, yet alternative performance by the Cello Octet. This chapter concludes with reflections on the embodied relationship between musician and instrument as archive, and proposes to view instruments as significant, sounding others that play a crucial role in the conservation and innovation of classical music.

8.2 One–to–one cello classes at the Conservatorium Maastricht

Classical music is an art of the body, of 'fundamentally corporeal events, assemblages of living, breathing bodies gathered together in space' (Draucker, 2021). Yet in this embodied practice and learning, as Ingold has asserted, cognitive processes are not separate from physical ones. So how do cellists' bodies engage with cellos in learning and teaching musical works? In this section, I focus on how the cello is intertwined in student-teacher relationships at the conservatoire, particularly in one-to-one lessons. Although one-to-one lessons are an integral part of learning how to become a professional musician in the context of any instrument, the literature that I introduced in Chapter 7 pays little attention to what the instrument might afford in these settings.

At the time of my research, the Conservatorium Maastricht had three cello classes. This means that three teachers – all successful performers with long-standing careers – had a handful of bachelor's and master's students each, whom they saw for individual lessons in regular intervals. Two of these teachers – I will label them teacher 1 and 2 – brought their cellos with them to the classes. Teacher 3 did not have his instrument with him and taught his classes without his cello, due to the distance he travelled each time and the safety risk this would pose to the instrument.[96] Consequently, I encountered two radically different settings that presented an interesting comparison on whose ground to examine the role of the instruments in the lessons.

Usually, students would bring to these lessons a musical piece or an excerpt that they were currently working on. In both settings, student and teacher commonly sat facing each other so that both could see each other's instruments, particularly fingerboards and bows (music stands were, if needed, usually shuffled to the side). The students would then start to play what they had prepared for the lesson, until interrupted by the teacher. This was the moment when a thorough scrutinisation of the playing and the musical work began. Both settings shared important similarities: all teachers played the notes or passage in question to demonstrate how it is supposed to sound 'correctly', often followed or accompanied by verbal, gestural, or sung explanations. These situations highlighted the teachers' proficiency

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96   Although I have occasionally heard about teachers conducting lessons without their own instruments, it is an exceptional practice.

and expertise in playing the instrument, as well as the higher quality of their instrument compared to that of the students. This emphasised the hierarchy in the different levels of skill between teachers and students. Moreover, the teachers would copy the students' mistakes in an exaggerated manner to make them understand what they did wrong or what they actually sounded like. Teacher 1 and 2 sometimes also accompanied their students. This happened primarily in the context of cello sonatas and concertos, works that feature a broader instrumentation absent in the one-to-one setting. Here, teachers used their cellos to 'simulate' the melodies and voices of the missing instruments. This aimed to provide context to the students, increasing their understanding of the musical relations between various instruments, as well as their own role in a given piece or passage. This engagement also served to clarify the building blocks, mood, and structure of the piece.

While these ways of teaching constitute similarities, there was also significant divergence between the two settings, because teacher 3 had no instrument with him. Teachers 1 and 2 frequently used their cellos to communicate musical ideas, such as possible dynamics and articulations, expressions, or techniques. Having two cellos in the room facilitated the emergence of a dialogue about the music, particularly on how it was presented in the score. This field note fragment, for example, refers to a lesson with cello teacher 2:

> They [teacher and student] spend a lot of time looking at the dynamics and trying out different ways of playing, constantly referring back to the score. Cello teacher 1: 'For me, this note needs to be softer, see the part right after? It might be nicer or easier to do it with a downbow [he performs a downbow]. If you do it with an upbow, it becomes too… energised. I don't think that this is what the music is about.' She responds: 'But I like it this way. It's… more majestic.' [She plays the part again, upbow.] He begins to test both options in rapid succession, not saying anything, just playing. They continue like this for a while, taking turns and playing both options for each other.[97]

The presence of both cellos generally facilitated a reciprocal probing of how certain interpretations and ideas for a piece were seen to be connected to various possibilities of playing. It also created a horizontal level between teacher and student, temporarily suspending the hierarchy of the master-apprentice model. Musical dialogue was fostered through both musicians responding to each other or conversing with each other *through* their instruments.

This insight is supported by the observations I made in the setting in which the teacher had no instrument of his own. Teacher 3 found a different solution: he frequently borrowed the students' cellos and bows. This resulted in a close physical proximity between student and teacher. The musicians continuously handed the instrument back and forth for the teacher to be able to demonstrate and play for the student, which often resulted in a dynamic atmosphere in which bodies and instrument moved considerably. Yet this arrangement turned out to

be not merely practical; by handing over their cellos and bows, the students also handed over authority to the teacher, who then presented the young musicians with a seemingly effortless demonstration of the problem in question – on their own equipment. This seemed to hamper students to communicate their own musical ideas, simply because they often did not have their instrument to demonstrate what they had in mind. The setting also helped them avoid difficult moments: when they could not manage to execute a sound or technique, or when they had difficulties understanding what they should do, students would (often wordlessly) hand back the cello for the teacher to demonstrate again. The result of this setting was a much clearer hierarchy between teacher and student, in which the teacher provided clear demonstrations, with students, for example, imitating the observed fingerings on their own arms or legs before being able to try them out on their cello.

Although this setting can be argued to restrain the students' agency in exploring and communicating musical ideas, they benefitted from it in other aspects. For example, the demonstrations showed students how their instrument could potentially sound. A student of teacher 3 reflected on his insights after having visited a one-to-one lesson by teacher 1 with another student:

> If he brought his own cello, he could accompany me. That would help me to understand the music better. […] You were also at teacher 1's lesson, right? The student was playing the cello part and the teacher was playing the piano part on his cello. And that's good, because it helps you to understand things that you cannot understand otherwise. With teacher 3, the lessons are more technical. But he shows that with your cello – your own cello, which is definitely not a Stradivari! [laughs] – you *can* do these amazing things. (Cello student 4, interview, 2019)

While handing over the cello and bow could potentially be perceived as a source of discomfort for the student, he experienced listening to his own cello and bow being played by the teacher as insightful and motivational. Moreover, having the teacher play one's own instrument and bow could also deepen the understanding of an instrument's particularities, and the consequences these might have for the students' learning and playing process. This is exemplified in the following observation recorded in a lesson with teacher 3:

> They arrive at a glissando and teacher 3 shakes his head as the student plays it. She hands him the instrument. He tries to play it but has to try five or six times until he gets it right. She watches his struggle. He looks at the cello, then at the student, and says: 'It's really hard on your cello. I think it's the distance between the strings and the board. Try again.' She takes it and tries again; he encourages her. After a few tries, she produces a more coherent sound. He says: 'Very good. On some cellos it's not as hard, but on yours it really doesn't come easily.'[98]

98   From my observations on 5 November 2019, Conservatorium Maastricht.

Recognising the specific challenges or difficulties that an instrument's build might pose can also reassure students and help them approach technical problems. In connection to this, the absence of a second cello enhanced the physical mobility of teacher 3: he would frequently get up to either correct the students' posture or bow hold by carefully draping and positioning their hands, fingers, arms, or elbows. He would also guide their movements, for them to recognise how the production of a certain sound should feel, or wiggle their arms and elbows to release physical tension. This happened much less frequently in the first setting, in which the teachers' cellos seemed to limit the teacher's mobility and physical engagement with the students.

As already hinted to in the student's quote above, the intense swapping and demonstrating in the second setting enabled a deep focus on the calibration of motions and the execution of technique. Here, the musical work was practised as a series of detailed technical exercises consisting of multilayered physical movements, which subsequently became engrained in the students' bodies through thorough correction and repetition (helped by practising at home). In the first setting, technique was communicated and practised as 'serving' the music. This was expressed by teachers 1 and 2 as well as their students in the interviews. When asked about the relation between technique and interpretation, they stressed that a sufficient level of technique is the precondition to express oneself musically, meaning to execute or realise one's own interpretation and musical ideas. In turn, without any musical ideas, the best technique was considered worthless (cello teachers 1 & 2, interviews, 2019). More than once, teacher 1 told his students: 'You play the notes beautifully, but don't just play the *NOTES* – we can all play them! – I need you play the *MUSIC*! [snaps excitedly with fingers] What do you want to express?'[99] The focus on these musical ideas even led him to prompt students to forget that they were playing the cello:

> You should understand that it's not about the cello. It's not. You can play it on a viola. Doesn't matter. I want you to forget that you play the cello. [He makes a dramatic pause.] It's not about that. [He makes sweeping motions across his chest, where the cello leans.] It's about the music. [He lifts his arms in an outwards motion.][100]

Teacher 1 described the cello as an exchangeable tool, existing independently of the music and its interpretation, or musical ideas. This stands in contrast with the second setting, in which almost every interaction revolved around the cello and instrument-specific techniques. The search for refinement and ever-precise instrument technique turned the music almost into a physical attribute with teacher 3, attempting to eliminate any ambivalence by engraining it into the students' bodies. Technique and musicality became inseparable: it was, basically, the same. The cello was the 'locus' of the music.

99   From my observations on 11 November 2019, Conservatorium Maastricht.

100 From my observations on 11 November 2019, Conservatorium Maastricht.

The two settings I encountered enabled different understandings and performances of the relationship between technique and the music. This was not because the three teachers had radically different conceptions about this relation: in fact, all three clearly stated that they saw technique and musicality as inseparable (cello teachers 1, 2, & 3, interviews, 2019). Rather, the different engagements with the cellos shaped this relationship practically. These engagements afforded two different ways of practising this craft and tradition. In the first setting, the instruments enabled an exchange between and negotiation of musical ideas between students and teachers. In the second setting, the technical exercises – enhanced by the passing over of the instrument and the demonstrations of the teacher – enhanced the cello as *the* portal to the music, and helped students gain new insights about their instrument.

The differences between these two settings, however, also depend on other aspects. While the levels of the students played a role, the personalities, and backgrounds of the teachers – including their pedagogical ideas, values, and musical cultures – shaped what the teaching concretely looked like. Whereas cello teacher 1 and 2 both come from Western European countries, teacher 3 is firmly embedded in Eastern European musical culture, whose methods are often viewed and experienced by students as stricter and more 'disciplined', with the teacher demonstrating more and the students talking less (cf. Coles-Aldridge, 2019). Such distinct national musical traditions, cultures, and backgrounds might also affect what engagements teachers view as possible or adequate. As teacher 3 formulated, 'I've been taught in the same way that I teach today. We all have baggage, one way or another. Distinct musical traditions. We don't suddenly change. […] Teaching is more of an evolution' (interview, 2019). In other words, these engagements also reflect, at least partially, the traditions and histories in which the teachers were and are embedded.

In the next section, I will explore the embodied relationship between students and their cellos outside of one-to-one tuition.

8.3 Always together: Students, musical works, and cellos

By entering the conservatoire, students have decided to pursue a career as instrumentalists (or vocalists). This marks the beginning of a new phase in these young musicians' lives, in which student and cello become increasingly attuned to each other. Yet this relationship has evolved over years or decades before this stepping stone. After all, these students have played the cello since they were children, or even toddlers. One student, who started playing when she was three years old, describes:

> When it's not there, I notice it in my fingers. When you don't play, the calluses go away. And that's such a strange feeling. When I touch things, I notice it all the time – for example, when I have fewer calluses in the summer. It feels totally wrong. […] I've been

> playing the cello for so long. [...] My body has practically grown around the instrument. [laughs] It's really like these trees that grow around something. Trees adapt. I also feel like my body has adapted to the cello. There are many things, but, for example, when I take something with my right hand – many cellists do that – for example, my toothbrush – I hold it like I hold the bow. [laughs] (Cello student 9, interview, 2019)

Her story shows to what extent the students are used to having their instruments with them and *at* their own bodies, and how their own bodies become shaped by the object. This can also cause problems, as another student explained, who, in her teens, developed severe back problems after undergoing a burst of growth and failing to adjust her posture (cello student 5, interview, 2019). The strain on the body caused by practising and playing can have long-term consequences – physical problems such as back and neck problems, bruises on chests, or hypermobility issues (the often painful overstretching of joints) are common injuries among cellists. Here, it becomes obvious that playing an instrument like the cello assumes bodies that are healthy, resilient, dexterous, and not disabled.

Additionally, learning repertoire or musical works presents constantly new (physical and technical) challenges that the students must master. This concerned both situations in which students revisited already known repertoire as well as when they learned new repertoire. In the former case, students became aware of how far they had progressed from the level when they had learned the work first (often with different teachers). The same student as above explained that

> in the past, I only ever played the first or second movements. Now I am completing concertos, which means I retake these movements. This is great, because I am now a different person, also in terms of playing. I'm more advanced. (Cello student 5, interview, 2019)

Revisiting, however, causes substantial problems: having to play these works or movements again also means having to confront older, often outdated ways of playing:

> Whenever you play a piece, you're at a certain technical or musical level. You learn it so extensively that when you come back later – you still have it. Your body still knows it, your fingers still know it, your brain still knows it like you learned it before. But you've evolved in the meantime; you've changed certain things – mentally or technically. But when you play it again, everything old still returns. [...] You realise: 'Huh! That's my old self. I haven't seen her in a long time.' It's very difficult to change that. (Cello student 9, interview, 2019)

The work, at certain stages, becomes engrained in the student. The student's story vividly illustrates how she contains a piece, exemplified by how she falls back on previous habits and techniques. As argued in Chapter 7, Ingold tries to counter the idea that ways of playing

become 'sedimented' in the body with help of the notion of correspondence, a notion that describes the attentive attunement of player and instrument towards the world (2020: 207). While the student's quote seems to indicate how difficult it is to bring newly learned techniques into a well-known piece – to adapt, unlearn, and relearn – it also recalls, borrowing Ingold's terms, moments of past attunement or responsiveness between her and the instrument. But not only that: it demonstrates how playing becomes a way of thinking, as students encounter themselves – or their past selves – in their playing. It becomes clear that, ultimately, they are their playing. As Ingold says, 'once under way, it seems that I and my playing are one and the same. I become my playing, and my playing plays me' (2020: 204). It might be argued that in the context of relearning musical works, this encounter of oneself becomes especially clear and visible because it entails a disruption or contradiction with one's present self. The knowledge emerging from this encounter subsequently seems vital for how students 'index', record, and determine their playing. Here, the students' own 'tradition' and history emerges.

When learning new repertoire, it becomes apparent how the students' bodies adapt to the cello, yet they also learn how to adapt performance techniques to their bodies. In one lesson, cello teacher 2 demanded from a student to play a note with her fourth finger (the little finger); the student was unable to perform the suggested fingering, as her joint would block and prevent her from bending the finger far enough to reach the note. Situations like this can be fixed or circumvented (in this case, she used her third or ring finger), yet at other times they call for more significant changes in the execution of a passage to make it possible to be played at all. Although teachers demonstrate specific techniques and ways of playing, the students cannot always easily adopt these. They need to (sometimes laboriously) train to inhabit these techniques.

Fingerings and bowings are fitting examples of this; they show that technical demands are intimately related to the musical ideas of a work. Crucially, these adaptations of technique affect the music: often, they resulted in different sounds that need to be negotiated again in relation to the musical ideas, such as the mood of the piece. Frequently, certain adaptations by students were seen as 'too risky' by the teachers, potentially putting the aspired sound and music in jeopardy.[101] Moments like the following illustrate that fingerings, bowings, and certain sounds are traditions in themselves, as a student of cello teacher 2 explained:

> The way we are taught, it's a tradition that is kept alive in us. I mean very specific things, like fingerings or sounds in specific moments that the big cellists, or musicians from before – well, they did it like this, and the tradition kept these things alive. Which is beautiful I think, but sometimes… You should renew it also. Maybe you have an idea that is different. And then you go against it. […] Just the idea of going against it, I really like. I find that inspiring. (Cello student 6, interview, 2019)

101 Fingerings and bowings presented the most common areas of conflict between students and teachers. This was enforced by the different editions of a score that students and teachers would sometimes use, and in which ideas for articulations and dynamics diverged.

While physical limitations may make adaptations or changes necessary, the students, like the one in this example, also constantly grapple with their own musical ideas, which might move against well-established ones. This student knew that failing to adopt certain fingerings and techniques would put her into conflict with the tradition and what the teacher expected from her:

> Petzold: Have you ever gone against it yourself?
>
> Student: Oh yes, I did it yesterday. He didn't like it. [laughs] There is this one passage in Dvořák [*Cello Concerto in B minor*], and I really don't like the fingering there. It's about two phrases, and the first one plays more to the outside. Not really loud. The second one is a repetition, and many think it should be softer. So, in the end of the first phrase, most people go already to the D string, which makes it sound softer. But I think it should stay in character, you know. In the lesson, I played it like this. And the first thing he said when I stopped was: 'Many things are very nice, but there's this one thing that you do as wrong as it can be!' [laughs, then shrugs]
>
> Petzold: And then what happened?
>
> Student: And then I had to do it like it should be done. [laughs] But I didn't decide yet what I will do. It depends.
>
> Petzold: On what?
>
> Student: On where and when I will play. In the class concert, I will try to do it as he said. [laughs] But maybe in a concert, later... I will do it my way. (Cello student 6, interview, 2019)

This situation shows how the student's own ideas on technique and its musical effect were rejected by the teacher, illustrating how difficult it can be to implement one's own ideas of how to approach or perform a piece. It shows that tradition is reproduced in the rejection of new or alternative ways of doing – for example, how musical ideas reflect in technique. The hierarchy of the one-to-one tuition plays an important role here. Yet the student does not dismiss but carries on her resistance against the traditional conception of the moment in the Dvořák piece: underlying is the idea that, within a conservatoire context, students need to learn the craft and tradition before they change it in another context.

It is no coincidence that the piece in question is famous in the cello repertoire. There are a handful of musical works that are considered especially important in terms of the music as well as for the development of a cellists' musicianship. At the Conservatorium Maastricht, cello teachers and students would usually discuss and decide together what work to learn

next. Often, this also depended on the students' auditions or concerts, for which the pieces were fixed in advance. Crucially, the musical works served primarily a didactic or pedagogical purpose: they became tools for the students to advance their technique and playing abilities (in the case of the one-to-one lessons) or to demonstrate both (for example, in auditions). Cello teacher 1 argued that next to building up the students' repertoire, which should have a certain 'range', the most important task is 'to choose the repertoire as skilfully as possible so that it helps the student to progress' (interview, 2019). That means that

> I first need background information on the students. What is already there, and where are gaps that need to be filled? I then ask: what is best for the student? With what will they progress furthest now? It's not always easy because there are personal preferences – for example, when someone says, 'I don't like that piece' or 'I really want to play that one'. We always find a compromise. (Cello teacher 1, interview, 2019)

Consequently, there is no standard progression through the repertoire. The students' different capabilities, preferences, and backgrounds also explain why the master-apprentice model is still the most efficient way to progress as an instrumentalist: it enables space for and adapts to the individual students. Simultaneously, musical works become markers of certain stages in the students' lives, both personally and professionally. Sometimes, musical works are connected to memories such as past concerts and hardships; sometimes, they mark stages in professional growth.

Yet it is not only the musical works that become both physically and affectively attached to the student. Their instrument does, too:

> With all of my cellos, I had a very deep emotional connection. […] I remember when I changed from 1/4 to 3/4. I cried and cried because I had to give it away. It's like… it's a person. After that I had another cello, and I had to cry again when I got a new one. [laughs] Of course, you're happy that you get to know a new instrument, but you spend so many hours with it… You give yourself to it. And that means something for how you connect. (Cello student 9, interview, 2019)

A majority of the students I interviewed explicated similar connections, using affective language and vocabulary, comparing their cellos with pets or even spouses:

> It's like we're married. When you're married to someone, you'll have to take them into account, all the time. You want them close; you want to look after them. It's the same with the cello. It's like having a really close friend or partner that you're always with. And you're always trying to make each other better. (Cello student 3, interview, 2019)

The reciprocity of this connection is also described by another student, for whom her cello became a comforter in difficult moments of her life:

> There was a period in my life when I had to see the cello as a friend who's helping me, not as a thing that would always remind me that I was not good enough, or that I have to practise. I started to play when I felt nervous, or emotionally stressed. And this really helped me, comforted me. (Cello student 5, interview, 2019)

Many students referred to the constant togetherness as having a big effect on their lives and their musicianship. Consequently, getting to know these instruments inside out made students aware of their particularities – sometimes referred to as 'moods' by the students – in playing and sound. The instruments' characteristics also played a major role in how students learned and adapted techniques. Aspects such as corpus form, fingerboard (in what distance the notes are arranged), positioning of the bridge (which dictates the distance or between strings and fingerboard), the strings, and capabilities for projection and sound affected the decisions students would make in terms of playing. One student shared how he avoided playing certain notes on the A string, as he perceived the sound as too sharp (cello student 4, interview, 2019); two others described how they had to put more strength into playing because the distance between the strings and the fingerboard was so big (cello students 2 & 6, interviews, 2019). The cellos thus afforded certain ways of playing more than others; sometimes, they disrupted familiarities, necessitating students to engage with its material properties in a flexible manner.

Yet the students also argued that the cellos adapted to them, particularly in terms of sound: 'While I am improving, the cello' sound improves, too. [...] Because when I am improving, I play differently, and the cello reacts to that different way of playing' (cello student 2, interview, 2019). Wood, as an organic material, changes and moves – for example, according to temperature and humidity – and is understood to react to other physical stimuli such as new ways of playing. Another student described how, since working together with teacher 2, the sound of her cello had 'become much more open' – meaning that the sound had become rounder, louder, and more 'projecting', a phenomenon that is well known among cellists and which is caused by the exposition of the wood to the vibrations of the strings (cello student 1, interview, 2019). Old instruments, moreover, were generally characterised as more 'moody' or unstable in sound:

> New instruments tend to be more secure. You take it out and it will respond in basically the same way. Older instruments, they are more... How do you say in English, *wispelturig* [fickle, inconsistent]? So, on some days, mine is like: 'No, I am not going to sound today.' (Cello student 6, interview, 2019)

Students believed that a higher-quality cello afforded a higher quality in sound as well as more advanced ways of playing. Connected to this, a major point of insecurity for the students rested in looking for a new instrument. While several students were looking for new cellos at the time of my research, they all emphasised the uncertain and intuitive nature of this process:

> It's really hard, to be honest. I don't really know how. You have to start somewhere, and then try out many, many instruments. To get a feel for what you like and what you don't like, or what you're looking for. […] It's also an intuition that makes you recognise you like one instrument. It can be a long search. [laughs] And it should be, because it's an important decision. (Cello student 6, interview, 2019)

While teachers usually help with the final decision (for example, by test-playing a preselection of instruments), there are no courses or modules in the conservatoire curriculum to help the students deal with this process, and the material diversity that it presents.

Yet not all students owned their cello. Many borrowed it from a foundation or association. This was not always a matter of choice, as most of them could not afford acquiring an instrument of 'sufficient' quality. The loan arrangements raised uncertainties for a handful of students: the fear of loan contracts not being prolonged, and subsequently being forcibly separated from their instrument by their rightful owner at any point of time, was a considerable risk. For two students, these worries translated into the hesitation of becoming too attached to the instrument. They also described the fear of having to fall back on lower-quality cellos, which they thought would hamper their technique, expression, and joy of playing significantly (cello students 5 & 9, interviews, 2019). This experience also changed the way one of them understood herself in relation to the instrument: 'I suddenly thought "the instruments own you". Because they will last long; you just don't. [laughs] That really changed my perspective' (cello student 5, interview, 2019). This understanding enabled the student to pick up a relationship with the instrument, showing her that – no matter whether she owned or borrowed the cello – she would become part of the instruments' history as much as it had become part of hers.

To conclude, the togetherness that emerges in and from these cellist-cello interactions illustrates that instruments are not mere bodily extensions, but that they fundamentally affect how musicians perceive, negotiate, and navigate the music, its tradition, and themselves. The different engagements in teaching and learning at the conservatoire show that the embodied relationship between musicians and instruments is an archive of the music on an almost forensic level of learning and unlearning, doing, and redoing. Further inquiries into the relationship between the students and their instruments show, however, that this relationship is more complex than that, characterised by deep responsiveness and attunement, as well as uncertainty, rather than symmetry. This makes this embodied relationship not merely an archive for the music and its tradition, but one in which instruments become accompanists of life rather than tools for the craft. Music and life – both can only be done *together*.

8.4 The Cello Biennale's National Cello Competition

The conservatoire presented a context in which classical music and cello practice are handed down and negotiated, as well as integrated into embodied archives both physically and affectively. Yet also other communities and collectives play a role in negotiating tradition and, as I will show in this section, in finding new ways of approaching this tradition. In this section, I shift the focus from 'everyday cello practices' in the conservatoire to an event that revolves exclusively around the cello as an instrument: the eighth edition of the Cello Biennale in Amsterdam, which took place in October 2020 and whose main theme was 'The Cello Takes Over'.

The Cello Biennale presents an extraordinary context for cello practice, as well as classical music more generally. In the two following sections, I examine how the focus on the instrument might allow for a reorganisation of traditions of both classical music and cello practice through fostering a culture of coexistence of the old and the new. In doing so, I focus on how the event provides space for alternative engagements between cellists and cellos. Importantly, what happens during this event might feed back into the professional and personal practices of the participants. Artistic director and founder of the Cello Biennale, Maarten Mostert, explains that his main motivation to establish the Cello Biennale was the creation of a Dutch National Cello Competition, which has become a core element of the festival (interview, 2019). In this section, I investigate this competition. My motivation to do so comes from how this competition marks a transition from traditional conservatoire education towards new ways of engaging with new repertoire; the competition might be considered both traditional and new at the same time.

In classical music, competitions are a well-established, long-standing tradition (McCormick, 2015). In the case of the Cello Biennale, both organisers and participants emphasise not the competition's musical role in the festival, but rather its benefits for the cello students' professional and personal development (Mostert, interview, 2020; Warenberg, interview, 2020). Yet Mostert acknowledges that the competition is not entirely unproblematic:

> Competitions are wrong, of course. It's strange for me to say this, but they're not a very musical thing. But it bears more advantages than disadvantages. What's wrong is that it creates too much tension. That can be good, for example... If you play in public for the first time, you need to be able to cope with this enormous pressure. What's good is that the students can concentrate on a special programme for half a year or even a year. And that provides a lot of benefits in terms of studying. (interview, 2020)

The acknowledgement that the event's competition does not merely serve a musical function but a pedagogical one is shared by Alexander Warenberg, Dutch cellist and winner of the 2016 competition. Warenberg stresses the competition's role in learning and performing in front of an audience, but even more so the impact it had on how his professional career continued (interview, 2020). Winning the competition marked an important point in his development

as a cellist: for example, the Cello Biennale arranges for the winner to record a CD and play solo concerts at other institutions, halls, and festivals in the Netherlands (Cello Biennale Amsterdam, 'National Cello Competition').[102] The competition therefore helps young cellists to network with professionals in the field, and plays an important role in opening up new career opportunities (Warenberg, interview, 2019). Frequently, former participants return to later editions of the Cello Biennale to give concerts, accompany students in subsequent competitions, or become advisers and protagonists in the commissioning processes of works (Mostert and de Jong, interviews, 2020). The re-engagement of the cellists builds and fosters the community by embedding young, upcoming musicians in the festival. And while networking is certainly an important aspect for the competition's participants, this also helps the Cello Biennale to sustain and nourish both the competition and the festival itself.

The National Cello Competition of the Cello Biennale presents a seemingly smooth transition from the conservatoire to a phase in which students are continued to be tested, examined, and judged. Importantly, next to being a platform to build musicians' and institutions' standing as well as a community, in the past competitions have played a crucial role in establishing and conserving particular ways of playing and performance (McCormick, 2015; Wagner, 2015). With the help of juries, competitions generally 'sanitise' and foster particular ways of playing, and erase performances that do not adhere to the already established tradition. They also secure instrument-specific repertoire and set standards for how such works might be interpreted and performed by the participants. Yet the National Cello Competition aims to establish its own traditions and conventions that move beyond the established repertoire and performances. Mostert explains:

> The format itself is very old-fashioned, but the programme is not your middle-of-the-road repertoire. We always commission a work for the competition, and the participants also must play another new or lesser-known piece. We normally don't ask too many Brahms sonatas, or things like that. […] And that makes it more difficult: students have to learn many new things. (interview, 2020)

As the competition is embedded in the larger festival, which exists as an homage to the instrument, incorporating lesser-known and new repertoire provides a way to point to the larger, explorative context or aspiration of the Biennale. The competition therefore combines canonical pieces with new works or arrangements in each of the three rounds. For the 2020 competition, for example, the first two rounds included three canonical sonatas, one by Luigi Boccherini,

102   There are several prizes for the participants to win. In 2020, the first prize winner received the Sena Cello CD Prize as well as the first choice on solo concerts with the Netherlands Philharmonic Orchestra or the Netherlands Chamber Orchestra. The first, second, and third prize-winners obtained monetary rewards, the Kronberg Academy Master Class Prize (enabling them to attend a range of master classes at the Kronberg Academy), Gewa Cello Air cases, as well as professional photo shoots. Moreover, there is the Start in Splendor Prize (allowing its winner to organise a public, musical programme as managing director), the Incentive Prize (for encouraging young talents), the Audience Prize (voted for by the audience), and the Prize for the Best Interpretation of the Commissioned Work (Cello Biennale Amsterdam, 'National Cello Competition').

as well as a choice between a sonata by Benjamin Britten or Francis Poulenc. Yet the competition's programme also required students to study and learn a newly commissioned piece for cello composed by Dutch composer Martijn Padding, as well as an arrangement of a work by Gabriel Fauré (originally for flute and piano) and an arrangement of a work by Robert Schumann (originally for clarinet). The final round included more canonical cello pieces, with only one arrangement for cello – namely, Frédéric Chopin's *Grande Valse Brillante in D* (originally for piano) (for the programme, see Figure 23). Due to the pandemic, the programme of the final round had to be changed significantly at the last minute: as the official Covid-19 guidelines prevented an orchestra from joining, the organisers commissioned rearranged versions of the orchestral pieces, so they could be played with smaller accompaniments. This resulted in Haydn's *Symphony no. 13* being accompanied by the Dostojevski Quartet and double bassist Ying Lai Green, while the Walton *Cello Concerto* was joined by the Calefax Reed Quintet.

Programme round 1 and 2	Programme final round

• Luigi Boccherini, *Sonata in C*, G2
  Allegro
  Largo
  Allegretto
• Martijn Padding, *It sings, it whispers voor cello solo*
• Gabriel Fauré, *Morceau de Concours*
• Robert Schumann, from *Fantasiestücke op. 73, no. 3, Rasch und mit Feuer*
 	
Choice between:
 	
• Benjamin Britten, *Sonata for cello and piano in C, op. 65*
  Dialogo. Allegro
  Scherzo-Pizzicato. Allegretto
  Elegia. Lento
  Marcia. Energico
  Moto perpetuo. Presto
 	
Or
 	
• Francis Poulenc, *Sonata for cello and piano*, FP 143
  Allegro – Tempi di Marcia
  Cavatine
  Ballabile
  Finale
	• Joseph Haydn, *Symphony no. 13 in D*
	  Adagio cantabile
	
	Solo piece composed after 1970, choice between:
	• Luís Soldado, *O homem das tres pernas*
	• Krzysztof Penderecki, Divertimento for cello solo: *Serenade*
	• Krzysztof Penderecki, Divertimento for cello solo: *Serenade and Scherzo*
	• Krzysztof Penderecki, *Per Slava*
	
	• Frédéric Chopin, *Grande Valse Brillante in D, op. 18*
	• William Walton, *Cello Concerto*
	  Moderato
	  Allegro appassionato

Figure 23: Programme of the public rounds of the National Cello Competition, Cello Biennale 2020 (eighth edition).

Warenberg, who also accompanied some of the participants in the first and second round, suggests that such new pieces take the students out of their comfort zones: 'There were very unusual pieces – for example the Padding piece, or the work by Chopin. [...] These are works no cellist would play, especially not in such a big competition' (interview, 2020). He hints that these works exist outside of the immediate contexts of these (usually classically trained) students. However, the commissioning of new pieces is crucial for not only the students but also the composers. The competition enables them to connect to well-known cello repertoire and add their own work. On his process of composing *It sings, it whispers* for the competition, Martijn Padding describes:

> The music consists of a long lyrical line, from bass note to bass note, which originates in the lower register of the instrument. Sometimes phrases are answered by shadow phrases consisting primarily of flageolets. In the centre of the work, the music deepens, and the cellists get the chance to show their temperament. It is, after all, a competition piece. During the composing process, the cellist Lidy Blijdorp, who lives close by, visited me regularly to play through my sketches and protect me from major clumsiness.[103]

As in the case of Padding's work, new repertoire relates to the cellists, some of whom are frequent participants and guests at the Cello Biennale (such as the cellist Lidy Blijdorp). The excerpt also shows, however, how Padding investigated the capacities and sounds of the instrument through the process of composition, a process which helped integrate this contemporary piece into the competition's other repertoire as well as the larger festival. Crucially, by incorporating such contemporary or alternative pieces into the competition, these pieces move into the conservatoires of the applicants, where they are studied, dissected, and internalised in depth, next to or potentially even instead of other, more canonical works.

The same is valid for the arrangements, which are often based on well-known musical works, yet present a novelty due to their adoption to the cello. The 2020 Cello Biennale's theme provided a particularly generous space for such arrangements in the competition and festival more generally, as Mostert explains:

> The theme was 'The Cello Takes Over'. [...] The idea started with a specific piece that [cellist] Jean Guihen Queyras proposed to me years ago: 'Let's do the Bartók *Viola Concerto*, but for cello.' [...] I kept thinking, there are so many pieces with which you can do that. But it's always a thing to play an arrangement of other pieces... People are always

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103 Original quote: 'De muziek bestaat uit een lange lyrische lijn, van basnoot naar de volgende basnoot, die ontstaat vanuit het lagere register van het instrument. Soms worden zinnen beantwoord door schaduwzinnen die voornamelijk bestaan uit flageoletten. In het centrum van het werk verdicht de muziek zich en krijgen de cellisten de kans om hun temperament te tonen. Het is tenslotte een concoursstuk. Tijdens het componeren kwam de celliste Lidy Blijdorp, die vlak in de buurt woont, regelmatig langs om mijn schetsen door te spelen en mij te behoeden voor al grote onhandigheden' (Padding as quoted on the Cello Biennale smartphone app).

Mostert's perception that arrangements of other pieces are frowned upon illustrates that they are not mere inconveniences but significant interventions into the cello and other instruments' repertoire. The arrangements create situations in which the cello's tonal dimensions and capacities can be explored in reference to other instruments, as seen with the arrangements in the competition, like Fauré's *Morceau de Concours*, Chopin's *Grande Valse Brillante*, or Schumann's *Fantasiestücke*. Moreover, taking these works – which are part of standard repertoire for other instruments, here flute, piano, and clarinet – and rearranging them for cello also means opening up these musical pieces to change and investigate what the cello might do *with* or *to* them. The arrangements can create unconventional interactions and overlaps across instruments and instrument groups that result in new interpretations and performances of works, as the 'emergency' arrangement for the Walton *Cello Concerto* in the competition's final round showed. This concerto, usually performed by one cellist accompanied by a full orchestra, significantly changed once it was accompanied by the Calefax Reed Quintet instead (Figure 24).

Figure 24: Cellist Pedro da Silva playing William Walton's *Cello Concerto* in the finals of the National Cello Competition, accompaniment by Calefax Reed Quintet, 30 October 2020. Copyright/courtesy: Cello Biennale Amsterdam & NPO Radio 4.

The new commissions and arrangements might be seen to add to or extend cello competition repertoire, and potentially even present alternatives to the well-known canonical cello pieces. The eighth edition's National Cello Competition illustrates that change does not mean abandoning tradition or traditional elements; rather, it expands and adds to this tradition by offering new contexts for music and learning. The focus on the instrument during the event, and the Cello Biennale's motto 'The Cello Takes Over', facilitated these processes. While the combination of new and old repertoire might be argued to exist in the spirit of an

'old-fashioned competition', the National Cello Competition shows that traditional formats are not at odds with doing things differently or attempting to do something 'new'. Instead, the competition's traditional format might prove helpful in creating legitimacy and acknowledgement of these new or different musical works – and their potential role in the cello repertoire. In doing so, new interactions, engagements, and relationships might emerge. In the National Cello Competition, tradition and innovation coexist.[104]

8.5 Of kazoos, megaphones, bells, and cellos: *Sgt. Pepper's Lonely Cello Band*

The National Cello Competition is not the only format in which the Cello Biennale presents and commissions new pieces. Also other concerts and events in the programmes challenge the boundaries between 'the old' and 'the new'. In what follows, I focus on one of the 2020 Cello Biennale's concerts. This concert interrogates these boundaries and illustrates the role that such a festival – and collectives – can play in creating new ways of engaging with and understanding the role of instruments and other objects in opening up tradition. On the evening of Sunday 25 October 2020, the well-known Dutch ensemble Cello Octet Amsterdam performed *Sgt. Pepper's Lonely Cello Band*. In the concert, the Cello Octet (Sanne Bijker, Claire Bleumer, Sanne van der Horst, Rares Mihailescu, René van Munster, Alistair Sung, Esther Torrenga, and Geneviève Verhage) played an arrangement of the iconic album *Sgt. Pepper's Lonely Hearts Club Band* (1967) by The Beatles for eight cellos. The event was streamed online for free (Figure 25).

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104 The coexistence of tradition and more 'innovative' practices and works can also be seen in other parts of the Cello Biennale. The best examples for this are the Bach&Breakfast concert series and the CELLOFEST. Bach&Breakfast has become a beloved tradition at the Cello Biennale: for six days during the festival, the programme starts with a morning concert in which young cellists play one of the six Cello Suites by Johann Sebastian Bach for several hundred visitors who, while listening, indulge in coffee, freshly pressed orange juice, and croissants (Mostert, interview, 2020). Sanne Bijker, cellist at the ensemble Cello Octet, says that 'the Cello Biennale has this unique combination of the classical canon with new pieces' (interview, 2020). She describes how the music by Bach – with the Cello Suites being probably the most famous pieces in the cello repertoire – is performed at the festival in a prayer-like fashion, almost as if serving to remind this community of its roots (interview, 2020). This stands in contrast to the CELLOFEST, which takes place later in the evenings, and in which international, non-classical cellists and collectives from various backgrounds, musical traditions, and cultures perform for the visitors. Although both concert series are crucial to the festival, they are carefully separated from each other. Whereas Bach&Breakfast takes place in the main concert hall in the mornings, the CELLOFEST is at home at the Bimhuis, a smaller concert space attached to the main building of the Muziekgebouw. The cleansing morning ritual of listening to Bach's music is distinct from the more colourful 'underground' party, and although the CELLOFEST is a dedication to other musics, these musics are neatly contained and removed from the main building.
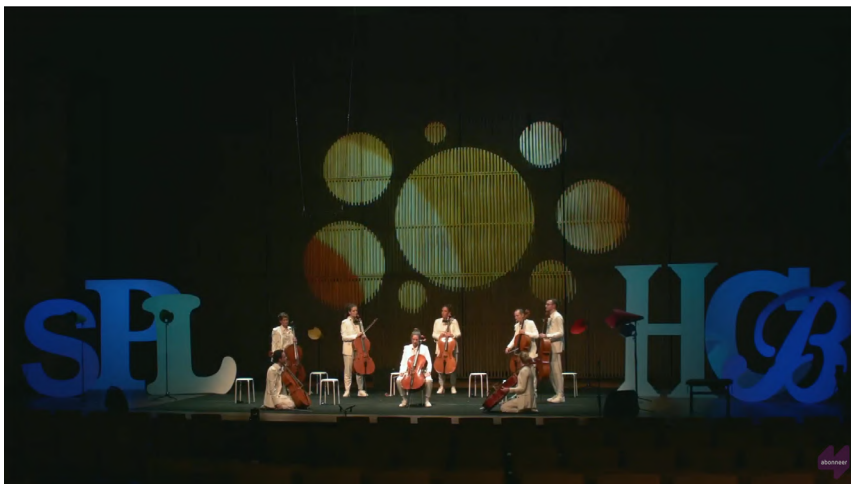
Figure 25: The Cello Octet performing *Sgt. Pepper's Lonely Cello Band*, 25 October 2020. Copyright/courtesy: Cello Octet, Cello Biennale Amsterdam, & NPO Radio 4.

The concert was a collaborative project between the Cello Octet and the Cello Biennale. The idea for the concert came from classical guitarist Johan Dorrestein, who was the Managing Director of the Cello Biennale until 2020. In the spirit of 'The Cello Takes Over', he proposed to the Cello Octet to 'take over' this historically important pop music album (Bijker, interview, 2020).

For the Cello Octet, this was not the first arrangement of that sort. From the very start of the ensemble roughly thirty-two years ago (during which quite a few cellists joined and left the ensemble), the Cello Octet has commissioned numerous contemporary composers to write new music pieces and arrangements for the group (Bijker, interview, 2020). The main motivation for this, Sanne Bijker highlights, is the ambition to create a canon or repertoire for an ensemble of eight cellists:

> The nice thing for the Cello Octet is that there is not a very big canon or a very old tradition. The very first piece for eight cellos came from Heitor Villa-Lobos, *Bachianas Brasileiras*, in the 1940s. [...] He was the first who wrote for eight cellos. [...] Between then and the start of the ensemble, not much was written. So, actually, we make our own canon. (interview, 2020)

As Bijker further explains, the lack of a canon or tradition, combined with the desire to establish and coin the octect's repertoire – creating a collection of pieces for the group to play and perform and shaping this canon musically – has enabled the group to explore new music and pursue 'interdisciplinary' projects and collaborations (Ibid.). The latter is visible in the ensemble regularly working together with composers, artistic directors, choreographers, designers, theatre makers, schools, and other social organisations. Because the octet has operated without a conductor since 2008, the eight cellists share all artistic and organisational tasks and make decisions together. In their projects, the Cello Octet often attempts to

connect to societally relevant themes such as consumer society, human trafficking, diversity and migration, and, recently, decolonisation ('About us', Cello Octet).

The interdisciplinarity that the Cello Octet aspires to bring to their work is visible in *Sgt. Pepper's Lonely Cello Band*. The arrangement and performance presented an artistic and practical challenge to the collective, as the original album by The Beatles was recorded and produced entirely in the studio. *Sgt. Pepper's Lonely Hearts Club Band* (1967) is a concept piece that incorporated a significant amount of technological experimentation. The album deliberately sought to explore and innovate the medium LP through the creation of new sounds and sounding techniques. This raised the question of how to translate these sounds and noises into a live performance – a question that composer and musician David Dramm, as well as the artistic directors and designers Titus Tiel Groenestege and Dieuweke van Reij took care of in close cooperation with the ensemble.[105] Finally, in the concert, the Cello Octet performed short, medley-like arrangements of each song of the album in white marching band costumes while continuously swapping chairs, standing, sitting, or walking while playing their cellos.

During the performance, one member was always at the centre of each song, with the movements and sounds of all others carefully choreographed around them. They acted as musical 'protagonists', playing the main theme or melody of the tracks. In doing so, the cellists and cellos often mimicked other instruments and took over other instruments' voices, such as the guitars in the original album. Interdisciplinarity became an important theme in the arrangement and its performance, as Bijker suggests: 'In a string quartet, the cellist is the cellist. But if you play The Beatles, then you sometimes are the guitar, sometimes the vocals… You have to become other instruments, occupy other roles' (interview, 2020). The idea of becoming other instruments also required the cellists to learn techniques and acquire or test new ways of playing while unlearning others. Bijker, a classically trained cellist herself, reflects on how the performance shook up what she had still internalised from her time at the conservatoire:

> This album, it's part of the pop canon. Playing this is so different from the cello concertos I'd learned back then – all the Dvořák, the Haydn. You have to forget what you learned – for example, about the clean start of the note. Because how The Beatles sing – they don't have a very fixed, clean note, but they slide a lot, and I found it really hard to not start on the pitch. […] I have been practising all these years to play in tune. From the very start of a note. And The Beatles, they are like uuueeeh! [She makes a noise that sounds a bit like a slur going upwards. She laughs.] And all the rhythmic elements, too, the timings, we didn't learn anything in the conservatoire about rhythm in other genres than classical music. (interview, 2020)

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105   These sounds have their own histories and traditions – notably, in the Fluxus movement of the 1960s and the work by John Cage.

Bijker acknowledges that what she learned at the conservatoire about technique and repertoire frequently helps her in the performances, yet these skills also regularly reach their limits in the Cello Octet's practice. The reason for this is that the interactions of the group members with their instruments – and between each other – exceed traditional cello playing practice that is thought in most Western European classical music schools and conservatories. The cellists do not sit silently, but move around together with the instruments, swap seats and positions, stand, walk while playing, or – as in The Beatles performance – sing, yell, and talk (Figure 26). This requires an elaborate choreography and shaping of the musical arrangement, as the employed techniques cannot be too difficult for the cellists to play under such conditions (Bijker interview, 2020). Bijker also emphasises how the group asked Dramm to write arrangements that are not too difficult to learn by heart: the cellists considered this an essential precondition for communicating with the audience as well as with each other during the concert, worrying that music stands would impede their agility and attention, and would obstruct connection with the audience. Although a live audience was not present due to the pandemic, online viewers could observe closely – maybe even more closely than under normal conditions – how the musicians engaged with each other, as this fragment of my field notes shows: 'During the songs, they're not only moving, but I see them communicating clearly: they look at each other, observe each other for longer stretches of time; they nod at each other, smile, laugh, grin.'

Figure 26: Members of the Cello Octet playing cellos and kazoos. *Sgt. Pepper's Lonely Cello Band*, 25 October 2020. Copyright/courtesy: Cello Octet, Cello Biennale Amsterdam, & NPO Radio 4.

Next to moving with the instruments, the Cello Octet also plays on various parts of the instrument that are usually 'off limits', like the strings under the bridge, the endpin, or the corpus, creating unusual sounds that became part of the music (Figure 27).

Figure 27: Member of the Cello Octet tapping on the corpus of the cello. *Sgt. Pepper's Lonely Cello Band*, 25 October 2020. Copyright/courtesy: Cello Octet, Cello Biennale Amsterdam, & NPO Radio 4.

Last but not least, they use other objects to play the instruments – for example, their hands or, as seen in the screenshot below, a debit card (Figure 28).

Figure 28: Alistair Sung playing his cello with a (seemingly ING) debit card. *Sgt. Pepper's Lonely Cello Band*, 25 October 2020. Copyright/courtesy: Cello Octet, Cello Biennale Amsterdam, & NPO Radio 4.

Yet the octet did not only play their cellos with other objects – they also played entirely other objects. The performance featured the cellists playing kazoos, shaking shoe clips with bells on them, speaking into a handmade paper megaphone. Except for the marching band costumes, with which the ensemble visually referenced the album cover artwork of *Sgt. Pepper's Lonely Hearts Club Band* (1967), these objects have musical purposes: they make or recreate sounds that are unattainable with the cello, or that are meant to complement and contrast the cellos' parts in the musical composition. The performance becomes also a demonstration of the sounding limits of the instrument in regard to the pop music arrangement.

Maybe more importantly, however, these objects are funny, strange, weird, and contrast the classical music tradition in a humorous, tongue-in-cheek manner. This is a fragment of my field notes on the performance, which describes my personal, initial reaction:

> Suddenly, they start fumbling and take out kazoos. They start playing on the kazoos WHILE they still play the cello. I laugh out loud, because it's funny: it feels so odd to see these cheap kazoos on a classical stage, together with these beautiful cellos. It's like a cheeky side-blow to the supposed 'authority' of these instruments. But it also does something for the sound… The sound is changing again. Maybe the most innovative thing here is not the music or the arrangement, but the playfulness, the visible enjoyment, the experimentation, the will to break with seriousness, to bring random (?) objects onto this stage to make noise, to make it look deliberately strange. Maybe you need a pop album for that?

The weirdness of these objects, as might become visible from the quote, is not only their sound and how they relate to the cellos' tonal capacities but also the interactions of the musicians with them, who, between playing the cello, have to take them out, put them back again, put them on, take them off, all while holding the cello or even playing it. This pulls focus away from the cellos (because the interactions draw attention to the objects), but it also pushes it back to them (because the cellos visibly obstruct the interactions with these objects). The result is an experimental performance in which seemingly random objects force cellos and musicians to constantly reshuffle and reorganise themselves in order to make music together. Although these interactions are not improvised, but – like a classical music performance – carefully practised and rehearsed, they are of a precarious nature, far from the secure and self-assured ways of playing the cello that viewers can witness in the more 'ordinary' classical music concerts of the Cello Biennale. *Sgt. Pepper's Lonely Cello Band* deconstructs a display of 'knowing how to play the cello'; it is an attempt to step away from known ways of engaging with the cello and open up new, slippery ways of interacting, and in doing so disrupt the familiarity that the musicians have sought to build for such a long part of their lives.

This approach to making music is possible by wanting to establish a canon or repertoire for eight cellos, and additionally the desire to approach, explore and rearticulate the instrument's own tradition:

> For us it's very important to still be able to see the cello as if it's the first time. […] Maybe some people have more respect for the instrument because it's really old and has this strong tradition. It has become more and more perfect. Maybe one cannot build it better – sometimes there's someone who invents another kind of string, but the core of the instrument is stable. It's the result of four hundred years of tradition and research. We try to see and explore the new things that are also possible. This instrument can do so much. (Bijker interview, 2020)

Recently, this desire has led the Cello Octet to the work *Severade*, which they realised together with composer Maxim Shalygin, the Dutch cellist Maya Fridman, and visual artist Rob van den Broek with Octosyn (Cello Octet, 'Severade'). In this work, van den Broek designed an installation or living sculpture in which the cellos of the Cello Octet accompany an electrically driven 'robot cello' played by Fridman. Each cellist also plays a set of three new instruments, using foot pedals. Together, the instruments produce complex sound textures that connect the long history and tonal qualities of the classical cello with the futuristic design and technology of mechanical instruments (Figure 29).

Figure 29: The Cello Octet performing *Severade* – composed by Maxim Shalygin – together with Maya Fridman at the Muziekgebouw aan 't IJ. Copyright/courtesy: Cello Octet, Maxim Shalygin, Maya Fridman, & Rob van den Broek; photo taken by Paul Janssen.

The Cello Octet cannot rely on a big or long-standing canon. This makes such engagements possible in the first place. The commissioning and development of such new pieces might make experimental interactions a fundamental part of this tradition: this 'new' canon draws significantly on classical music traditions, yet it puts these in relation with other artistic and musical cultures and techniques. In doing so, conventions and norms are not merely broken; they are extrapolated. The questions that the Cello Octet asks are neither arbitrary nor radical, but exploratory.

The performances by the Cello Octet – like *Sgt. Pepper's Lonely Cello Band* at the Cello Biennale – show that collectives and communities can play an integral part in changing how we engage with, interact, and use instruments – and how this might affect, add to, or reformulate the tradition that the classical cello community is embedded in. Importantly, in Dutch musical culture, ensembles have been a particularly important driver for musical innovation: Marcel Cobussen (2000), Professor of Auditory Culture and Music Philosophy, elaborates how in the 1960s and 1970s a new generation of musicians pleaded for the relevance of contemporary music in society and concert programmes, leading to the emergence of new

organisations and ensembles in the country's musical culture. According to Cobussen, the mixture of improvised and contemporary music of this time '(still) characterizes the repertoire of many Dutch ensembles' and 'led to a musical heterogeneity which is unprecedented' (2000: 44). There is no doubt that the Cello Octet is, in some ways, part of this tradition.

By giving attention to other objects and material environments and exploring their connection to the cello, the Cello Octet creates a porous meeting space between different musical cultures and genres as well as traditions of cello practice and repertoire. In this meeting space, the members of the ensemble transform from classically trained cellists into interdisciplinary artists. To conclude, *Sgt. Pepper's Lonely Cello Band* might have taken over The Beatles, yet, in doing so, the cello as we know it from its tradition was taken over by strange sounds and overruled and interrupted by weird objects.

8.6 A significant, sounding other

In this chapter, I have illustrated how different embodied relationships between cellists and their cellos enact and negotiate tradition. I did this at two sites: the Conservatorium Maastricht and the Cello Biennale Amsterdam.

At the conservatoire, the different integrations of cellos in the one-to-one tuition enable different ways of learning and practising classical music and the musical works. While having two cellos at hand facilitated an exploration and reciprocal communication of musical ideas and interpretations of the works between teachers and students, having only one cello emphasised the hierarchical setting of the master-apprentice model. In the latter setting, technical exercises and instrument-specific challenges were *the* portal to the music. Related to this, the different interactions with the instruments also allowed for different performances of the relationship between technicality and musicality, although all teachers conceptualised understood this relationship in similar terms. The individual nature of the one-to-one lessons particularly benefitted specific adaptations of technique; learning how to play a musical work depended both on the instruments and human bodies' material characteristics and properties. In this learning process, the musical works became didactic tools for progressing skill and craftsmanship. They are never 'finished', but students continuously revisit them, each time needing to confront their old selves and unlearn habits, routines, and ways of playing that had become engrained into their bodies from prior learnings and teachings. This reminds of Payne and Schuiling's (2017) insight that

> the itinerative character of musical performance is embodied in the performer's attentive engagement with his or her materials […], for example, in the fine tuning of the relationship between body and instrument to achieve the necessary fluency to execute a complex musical phrase […]. The musical result of such engagements can never be

The cello, however, is a partner to the students not only during moments of performance but also outside of it. They constitute an important part of the students' lives, as the musicians' bodies adapt to the cello while growing up and continuing to learn. This questions the assumption that an instrument is an extension of the body or self, as well as the idea that learning how to play an instrument is primarily a story of learning to exercise control or mastery over it. Rather, it is only in a state of togetherness – with the cellos also adapting to the students, and with the students becoming part of the cellos' histories – that both become living elements in and of the tradition in which they are embedded.

In turn, the Cello Biennale demonstrated several alternative engagements between cellists and cellos. The Cello Biennale is both a celebration of tradition as well as a gateway to alternative interactions, repertoires, and performances. The National Cello Competition, a key element of the festival, presents a traditional format and function that are, however, complemented by newly commissioned and lesser-known repertoire that open up the competition musically, allowing these pieces to spill into the practice rooms of conservatoires all over the country. Reconciling tradition with new, innovative repertoire and formats, the event creates a unique legacy or archive for how cellists might view, engage with, and understand their instrument. This became tangible in the Cello Octet's performance *Sgt. Pepper's Lonely Cello Band*, which is one example of how the ensemble constructs and shapes its own canon, using the lack of tradition (meaning classical music for eight cellos) to foster interdisciplinarity in terms of not only programming and organising but also playing and performing. In doing so, the Cello Octet expands what cellists and their cellos can be and do for and in a performance. In the piece itself, and as the cellos 'become' other instruments with help of the arrangement, the octet's members have to learn to navigate their cellos anew, opening up the cellos to be moved and played differently, with other objects disrupting and catalysing a constant reorganisation between the musicians and instruments. While the Cello Octet's members draw on a classical conservatoire education, they do not merely deconstruct their knowledge of playing the cello; rather, they extrapolate this knowledge and the instrument's tradition by continuously exploring, seeking out, and disrupting their own familiarity with the instrument, as well as the cellos' capacities and characteristics. This creates a way of playing that can be seen as both precarious and vulnerable, and enthusiastic and innovative. Generally, the dedication of the festival to the instrument allows its participants to extend, change, explore, and add to already existing ideas of tradition, to create new traditions, and to provide new entrances into classical music.

The insights from the fieldwork at the conservatoire and the Cello Biennale illustrate that the ways in which tradition and change are brought together by cellists and cellos rest on concrete and situated material relationships, interactions, and environments. In this, the

musicians and their instruments together form an archive of classical music and its tradition that operates both physically and affectively. Compared to the other two case studies, this is an embodied, rather than an institutional or digital archive. Cellists and cellos actualise this music and its works together – actualisation happens in interaction. In these processes of actualisation, both the physical as well as affective connections between musician and instrument play a major role. Students adopt and adapt traditions – such as sounds and techniques – according to their own individual indexes, sorting systems, and registers. Actualisation is a process of making sense of the music and its tradition through their own bodies in the engagement with their instrument. This also marks an important difference compared to the other two case studies: here, archives are not only formed at will, but potentialities depend on the musicians' and instruments' positions, abilities, characteristics, personalities, and properties. These bodies are marked by temporalities rather than historicity; as flesh and wood, they age and change, continuously also transforming each other. This makes the embodied potentialities of cellists and cellos, in theory both restricted *and* multiple, with every relationship being marked by different and unique potentialities. When musicians and instruments – with their own histories, schools, backgrounds, skills, and knowledges – become aligned and intertwined with a musical tradition, this also means that these embodied archives are located in different sites, bodies, and materials. Yet the research has shown that there are important similarities in how these embodied archives work: how they are taught and conditioned, how musicians might perform resistance, and how difficult it is subsequently to change and to unlearn. Here, the issue is not only how musicians process and learn information, but the ways in which this information is arranged and sorted. This has become apparent through the work of the Cello Octet, and the collective's laborious unravelling and reforming of their own archives. Notably, the embodied archives I encountered in this research all functioned and operated in able-bodied musicians, raising the question – and necessity of investigating – the potentialities of other-shaped or disabled bodies for this music and its traditions.

These findings suggest that embodied archives are complex or intertwined systems, where attempting to change or eliminate one piece of information might have significant consequences for the others. These archives might therefore tell us more about what cannot easily be erased or what stays and how. They might also tell us more about what practitioners find important: in the past, the physical and affective relationships between musicians and their instruments have been neglected, or reduced to music as a transcendent art form. Yet this chapter has shown that (and how) musical instruments matter in these situated relationships. What happens if we take them seriously? What can this tell us about what tradition means from a perspective of this relationship, and how it could change or open up?

Last but not least, understanding musicians and their instruments as emergent archives for classical music and its tradition might also shift long-standing ideas of craftsmanship in this classical music practice. In classical music, situated embodied perspectives have been subordinated to the (never completely attainable) mastery of the craft. What follows from

this argument is not a suggestion to reinvent or 'innovate' the tradition on our 'own', through our individual or collective relationships with objects or materials. Rather, I present this as a proposal not to obscure these musician-instrument relationships, as they become one direct archive for the tradition and its craft. This also means acknowledging the diversity in which these interactions take place, and from which this craft might become more open and permeable. While Sennett does not like to remind us that craftsmanship is also about power, master-apprentice relations can both foster and undermine experimentation and exploration, as seen at the conservatoire. The Cello Octet, in turn, shows that such experimentation might also be weird, vulnerable, and slippery. Their practice demonstrates how other objects, materials, and environments can interfere with the familiarity of embodied relationships, and how this might create potential in how we approach these relationships. Craft might thus be understood as a never-ending questioning of the materials with which we live and that accompany us and might exceed the immediate object of craft. Subsequently, focusing on the exploration of those materials and objects that make the music with us – rather than understanding classical music craftsmanship or musicianship as transparently serving the 'music itself' – might enable us to ask new questions, discover new problems, and find new solutions. To conclude, instruments – here, cellos – are significant, sounding others. The motto of the most recent Cello Biennale, which took place in October 2022, was 'The Cello Moves'. Indeed, it moves – if its practitioners ask it to, and if they let it be. In turn, they may let themselves be moved by it. Ultimately, cellists and cellos can only move and be moved together.

9
Conclusion: Archives for innovation

9.1 Innovating classical music

Throughout this book, I have drawn on contemporary art conservation studies to address how this field might assist in opening up classical music, while simultaneously helping conserve its artistic heritage. My motivation to do so was twofold. I sought to correct and update classical music's 'museum problem' from an antiquated comparison towards recognising the contemporary art museum as an important role model for change and innovation. Closely connected to that, I aimed to demonstrate what conservation can mean and entail in the context of classical music, which is exemplified by how contemporary art conservation has moved from the focus of materially preserving artworks towards managing their change, maintenance, and care. Contemporary art conservation is exceptionally good at making explicit the question of how to bring art into the future, considering both artworks and the – potentially concomitant – transformation of the field itself. This, I am certain, is relevant for the classical music community.

To understand how and why classical music and its traditions are so stable and, resulting from that, how and where they might be changed, Hanna B. Hölling's theoretical framework of the archive, including the notions of archival potentiality and actualisation, has guided me. By exploring my empirical case studies with the help of her theory, I demonstrated how three taken-for-granted artefacts or technologies in classical music culture help both conserve and open up classical music over time in situated practices and ways – further demonstrating that conservation and change are deeply intertwined. The first case study has made clear how concert programmes have both helped transform (in case of the London Symphony Orchestra) and conserve (in case of the Vienna Philharmonic Orchestra) the orchestras' institutional histories and identities; the second case study showed how classical music online streaming apps amplify musical traditions with the help of a rapidly changing technological culture that – based on a tradition of its own – links this music to self-enhancement, ubiquity, and personalisation; the last case study demonstrated how the physical and affective engagements between cellists and cellos shape and negotiate this musical tradition. By viewing these artefacts or technologies as archives in themselves as a starting point, the case studies illustrate that every archive offers and incorporates a range of potentialities that are or are not (yet) actualised. This means that once we understand better how classical music is conserved and actualised practically, it becomes easier to reflect on where these potentialities may be located, and how they might be enacted by practitioners. This is helped by the fact that the theoretical framework has enabled me to trace the

situatedness and heterogeneity of actors and materials in classical music practices while simultaneously helping me to recognise the broader mechanisms of these classical music archives and how they are actualised over time.

On the basis of my research, I have found that practitioners, even when aiming at innovating classical music, are not only guided by the desire to safeguard the musical works, but also the wish to protect the mechanisms, identities, and networks that this music has helped to establish. The three case studies show that the 'aesthetic' in classical music is inextricably bound to the social. Although fields such as art sociology and STS have recognised this, it has remained implicit what that means for the conservation of classical music and its heritage: that 'conservation practice' in classical music exceeds the mere performance of a musical work. While it has become clear that – as music sociologist Antoine Hennion has asserted (2017, 2018) – classical music is subject to a continuing and recurring process of making and becoming, the theoretical framework illustrates something that art sociology could not: with its focus on conservation and change, it makes visible where the boundaries are in processes of actualisation. It highlights the concrete contingencies and dependencies that practitioners have to negotiate in finding openings and renewals. In doing so, it brings to light the role of other, seemingly 'external' practices and traditions. A vital part of actualising classical music hinges on how involved actors rely on practices, traditions, and histories within broader genealogies – genealogies that bring together national and local histories and cultures, technological developments, recording industries, contemporary ensemble cultures, and other musical genres like pop music. In this way, these genealogies are subject to rearticulation in the process of classical music's actualisation.

This leads me to my main conclusion. I would like to reformulate classical music innovation as actualising the archival potentialities embedded in such genealogies. This is not as easy as it sounds. Although the notion of 'potentialities' is principally open, potentialities are not equivalent to innovation. Innovation needs to take classical music's practitioners, institutions, materials, and traditions seriously. This helps prevent proposals for classical music innovation from becoming too obscure, arbitrary, or generic, and helps secure their relevance and feasibility for the field. In doing so, the classical music community might be able to move beyond its strong focus on innovating concert formats and audience participation, to ask for forms of innovation beyond the concert event, and to search for concrete resources for actualising potentialities. It might thus avoid widening the gap between broad 'innovation-speak' and concrete innovative practices (Vinsel & Russell, 2020). This might then give rise to a conception of innovation that does not overwhelm orchestras and conservatoires with its revolutionary connotations, but presents options drawing on the traditions, practices, and problems that these institutions and practitioners see themselves.

Notably, this point relates to the work of STS scholar Jessica Mesman, who, in the contexts of healthcare practice (2011) and patient safety (Mesman et al., 2019), employs the notion 'exnovation' to foreground the positive potentials in a given practice to contest the

idea that existing activities or knowledges need to be discarded to progress or improve this practice (2011: 76). The concept – a combination of the words 'excavation' and 'innovation' – proposes to make explicit the already present but hidden wisdoms of practitioners in a given field of activity (Mesman et al., 2019: 2–4). Mesman proposes that

> more than innovation, exnovation does justice to the creativity and experience of the clinicians, in their effort to assert themselves in the particular dynamic of the practice they are involved in. Importantly, 'things or practices are not less valuable simply because they already exist' (Wilde, 2000: 13). (2011: 76)

In the context of classical music, it is particularly pastness – the above-mentioned genealogies and traditions – that may be understood to offer distinct archives that are relevant to finding and realising potentialities for actualisation. This process resembles Mesman's exnovation rather than the revolutionary connotations of innovation – digging out, rather than breaking away with. Crucially, while the particularities and situatedness of these archives make the difference, this 'exnovation' might be done by not only practitioners but also others (for example, researchers).

In what follows, I will elaborate in more detail concrete suggestions for actualising the classical music archives explored in this book in order to demonstrate how the theoretical framework might be put to work more practically. I will then revisit the implications this has for the theory and provide three 'archival lenses' that might help researchers reveal archival mechanisms while enabling practitioners to identify potentially unexpected loci for innovation. As this book intends to foster a dialogue between classical music and the field of contemporary art conservation, I will continue with a reflection on what professionals from the contemporary art museum may learn from my research. I conclude with a note on interdisciplinarity and its role in conserving the performing arts.

9.2 Suggestions for actualising classical music's archives for the future

In this section, I use my conceptual and empirical work to rethink what innovation might concretely mean for practitioners in classical music, focusing on the three case studies researched throughout this book. I aim to show that the quest for innovation in classical music is not a venture into the radically new or different, but that innovation departs from the close observation of situated classical music practices in order to identify and actualise archival potentialities.

9.2.1 On concert programmes
The first case study, an examination of the concert programmes of the LSO and VPO, has

shown how these artefacts both conserve and reinvent institutional histories and identities in connection to the music.

At the VPO, concert programmes safeguard and maintain the ensemble's identity and traditions, and in doing so contest the supposed ephemerality or fleetingness of these documents through both the programmes' materiality and focus on *Bildung*. Yet the orchestra's obdurate, long-standing subscription system, in combination with the involvement of the Gesellschaft der Musikfreunde, created the need for the programmes' constant renewal in particular ways: namely, in the production and provision of new knowledge, imagery, and information on the music. Consequently, concert programmes do not only actualise the music – always in close proximity to the ensemble – but they legitimise the cultural and artistic relevance of the orchestra and its long-standing history. The concert programmes of the LSO, in contrast, intervened in the identity of the orchestra over time. Their focus shifted from offering insights into the music to providing details about the orchestra, its musicians, and its educational outreach programmes. Due to the commissioning and reprinting system for a fluctuating audience, the programme notes run the risk of reproducing and conserving traditional musical knowledge and interpretations. However, values like accessibility and inclusivity have changed the programmes' musical terminology, potentially helping establish new ways of writing about music. While the orchestras maintain some conventional contents and production practices, it becomes clear that an established tradition – such as programme structuring or programme note writing – does not exclude the possibility for transformation.

What, then, could be forms of innovation in the context of concert programmes, which tie in with and acknowledge the structural differences of the VPO and LSO? What are the potentialities and possible ways of actualising that these orchestras' concert programme production practices might afford? In the case of the LSO, the wish to be accessible to a broad audience *and* to flesh out a unique orchestra profile allow for LSO-specific innovations in the concert programmes. In line with the pursuit to foster accessibility and enrich the audience's concert experience, concertgoers might become co-producers of the programme notes by writing short vignettes on their own stories, memories, and thoughts connected to a musical work.[106] This might provide new, accessible entry points into a musical work and how the audience might understand or experience it. These stories could connect also to the LSO, further fleshing out the ensemble's identity and its role in the audience members' lives. Vignettes like these might even challenge broader ideas of what musical expertise entails, further stimulating the LSO's societal aspirations. Also the musicians could be made part of this – for example, by sharing their experiences and knowledge about musical works and repertoires. This could happen not in the form of a note but, for example, in

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106 I draw additional inspiration here from the People's Salon concert, which was organised by the Artful Participation team of the MCICM in collaboration with philharmonie zuidnederland in January 2020. In this concert, friends of philharmonie zuidnederland came up with a musical programme inspired by their personal histories and memories. For more information on the event, as well as the MCICM's Artful Participation project, please see https://artfulparticipation.nl/experiments.

an interview about a musical work with interested musicians. Concertgoers like the LSO's friends and patrons might also, for instance, become involved in the creation of future identities and their representation in the programmes. Through a focus group or an informal workshop, the LSO could ask audience members to compile three future portraits of the orchestra, which build on how they understand the LSO and its unique role in the British and London classical music scene. The concert programmes could introduce and disseminate these. Finally, the desire for accessibility and inclusivity might stimulate an expansion or transformation of the paper or digital materialities of the concert programmes. While the LSO has recently started to include the visual listening guides of musicologist Hannah Chan-Hartley's Symphony Graphique project in their programmes, these guides are close to the function of the programme note because they move within the idealist aesthetics of structural listening.[107] Rather, concert programmes could take the form of audio postcards or even podcasts, resembling short radio features to include and involve audiences in different ways and different places (such as on the Tube on the way to the concert).

For the VPO, innovations involving concert programmes might look different. Due to the exclusivity of the subscription system and the subsequent creation of demand, the orchestra could, for example, make their concert programmes accessible to aspiring subscribers in order to expand their audience outside of the concerts while remaining in control of who might have access. This could happen through digitisation, a process that could additionally open up possibilities for the creation of search systems, or for saving parts of the programme that might be especially important or interesting to audience members. Moreover, given the fact that these audience members accompany the orchestra for a considerable part of their lives, also here, the audience might be included in how the concert programmes actualise the ensemble's history and traditions – because they are part of it. For example, they could be invited to provide their own archival material connected to the orchestra (such as tickets, letters, or memories) to the concert programme authors in order to further stimulate the reciprocal connection between the ensemble and its audience. Or the VPO and Gesellschaft für Musikfreunde might open up their archives to the concertgoers, and ask them to come up with their own understandings of (potentially preselected) material connected to a given work. To further explore the local position of the orchestra, concert programme authors could draw on the archives of other Viennese orchestras and musical institutions to uncover hitherto unknown connections and local histories. Last but not least, the VPO could develop and curate an exhibition of its concert programmes at local universities or conservatoires, which could further disseminate the research results incorporated in these artefacts and demonstrate the importance of this institution for music research.

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107 For more information, please see https://www.symphonygraphique.com. Symphony Graphique presents map-like guides that use colours, graphics, and design to navigate listening and guide through the broader structure of a piece. In doing so, they primarily rely on musicological expertise to create musical sights, strategies, and mechanisms that – as I have shown in Chapter 3 – are also common in the production of programme notes (cf. Thorau, 2019).

Changes like these might help the orchestras while also shaking up conventions of concert programme making. This can lead to changes and innovations of this artefact and its traditions, and how they actualise classical music.

9.2.2 On classical music streaming applications

In the second case study, which focused on the digital classical streaming applications IDA-GIO and Primephonic, I have investigated how classical music has entered the digital online streaming realm. In the two streaming apps IDAGIO and Primephonic, several (inter)medial traditions come together to reinforce online streaming logics and technologies, as well as canons of classical music and mobile music technology's focus on personalisation and self-enhancement or -regulation.

In this sense, the two apps become literal archives of not only the music but also its structures and ways of presentation in the past: their organisation is dependent on the revised metadata, which consists of long-standing 'parameters' through which classical music is and has been structured in the past (such as the work, movement, composer, ensemble, performer, period, or genre). The adjusted metadata allows users to finally search for categories and elements of the music that are not available on other streaming services. One might question whether this is innovative, or merely an overdue development of classical music entering the online streaming era: it can be argued that this is the bare minimum for this music to exist and be accessed properly on such streaming platforms. This raises the question of what would be left, hypothetically speaking, if Spotify introduced similar metadata – a question becoming even more urgent now that Apple has bought Primephonic and aims to release their own classical music streaming app based on the service. While the revised metadata is not innovative in itself, it has potential for innovation; mostly, though, the apps recycle well-established online streaming features and functions to attract users and enable a comfortable user experience. These features and functions can, however, change swiftly and frequently, highlighting their potential for change.

What are the potentialities of such streaming services for classical music, and how might they be actualised (and by whom)? One major potentiality for the innovation of classical music certainly lies in these apps' potential to intervene into the classification, order, and organisation of classical music with help of the adjusted metadata. While these apps already seek out the potential of creating networks between related compositions, composers, genres, and periods, these could be further made explicit and visible through the apps' interfaces, allowing users to literally view or trace these musical networks online instead of relying on non-transparent recommendation algorithms. Moreover, the revised metadata could, for example, also enable comparative listening modes between two or more recordings of the same composition, further catering to classical music lovers and aficionados. Another idea would be to create a complementary ordering and classification

system that is based on difference rather than likeness, playing with the logics of online streaming services to disrupt and diversify processes of discovery and exploration.

In finding potentially new ways of ordering and organising, curation is – as the platforms have already recognised – an important mechanism to bridge this music's online existence with its cultural context and history. Yet this practice is firmly placed in the hands of experts. To open up how curators select and order, for example, albums and playlists – and how they might view and approach processes of musical discovery – these apps could find ways to make processes of curation visible. For example, this could happen through publishing curated playlists in various stages of their development (and hence demonstrating how they change), or through the real-time making of playlists that might be accompanied by commentary to describe the curators' process and reflections. While at IDAGIO users are part of prototyping to help optimise technological systems and interfaces, they are excluded from content curation – this ultimately makes them passive receivers of what curators have to offer. What if, for example, the discovery and home pages featured playlists or albums curated by users? Users and curators could also collaborate to create a changing selection of playlists and albums. Or curators could propose themes or occasions for playlists and albums, and have users add their curated material to a collection that other users can browse. Such elements might strengthen user engagement while also revealing new contexts and meanings of the music that exceed expert understandings. It might also create an exchange or link between the different user groups that the services conceptualise.

Ideas like these connect to insights in the scholarly literature on online music streaming – for example, that musical discovery happens mostly through recommendations of peers, such as friends or family (Fenby-Hulse, 2016). While users can curate their own collection to a certain extent, these remain private and inaccessible to others on both platforms. Why not give users the option to publish and share their collections so that they can browse each other's collections? After all, even individual and personal listening does not per se exclude the possibility to share music, or even the act of the listening collectively (as we know from the concert hall). For example, these apps could include 'communal' areas or online spaces, in which users could listen in real time together to a given playlist or album with their own devices, from wherever they are (notably, such technology has recently been introduced to Spotify). Aspects like this further intertwine and complicate the relationship between individual and personal as well as collective listening, and how this relationship might play out in 'mundane' everyday life.

From a technological perspective, it might not be feasible to have users create or adjust their own categories, classifications, or systems of order. Yet, considering that these apps already combine cultures and traditions from different media and technologies, why not use these traditions more explicitly for innovation? For example, platforms could create more ways for users to connect their offline collections with their online collections. This could happen in simple ways: users could upload pictures of their own CDs and LPs

to further customise their collections, or users could include short notes to and annotations of a given track or section. Inducing digital collections with personal histories is also an aspect that Rebecca Mardon and Russell Belk (2018) raise when reflecting on the question of how to extend digital materiality and create meaning and pleasure in digital and online environments. In connection to this, these services could also introduce additional browse or search modes that pick up on analogue pleasures of browsing or collecting. Here, music could be made elusive or scarce through, for example, limited-time releases, the creation of online treasure hunts in which users could be required to show navigational skill to find music, or the introduction of 'geo-locking' in which some music might only be available in certain locations (Mardon & Belk, 2018: 560).

Such developments could further actualise the potentialities that emerge when classical music, streaming, and mobile music technology come together – leading to unique ways of online organisation, listening experiences, and musical interactions.

9.2.3 On being with instruments

In the third case study, I have examined how the embodied relationships between musicians and their instruments – specifically, cellists and their cellos – shape processes of actualisation. The finding that bodies and materials adapt to the music is not in line with an idea of craftsmanship, in which a tool is 'simply' mastered to solve a problem; rather, the changing physical and affective engagements result in the musical work never being finished. Works and traditions of classical music become mediators of the musicians' relationships with their instruments, their *significant, sounding other*.

My research at the Conservatorium Maastricht has shown how various settings of the engagement with the instrument create differences in processes of learning and teaching. It also became clear that the individual relationships between students and their instrument matter a great deal to these processes: a student's cello is not only a tool with which to learn to perform classical music, but a close companion. This means that the affective and embodied aspects of this relationship are important to making music, yet they are often obscured. While teachers confront students with expectations and traditions that they are meant to learn in specific ways, students constantly need to find ways to adapt to the characteristics of their instrument to balance their technique and musical ideas with these expectations. As bodies and materials change, problems emerge: these bodies physically conserve certain techniques and ways of playing – as musical passages are dissected on a forensic level – and it may therefore be difficult to unlearn and adapt these. This is different at the Cello Biennale, in which the focus on the instrument enables a coexistence of traditional cellist-cello engagements (as seen in the competition) with alternative, more experimental interactions (such as the performance by the Cello Octet). The event activates and expands this instrument's archive, both in terms of repertoire and possible interactions. This is recognisable, for example, in the Cello Octet's performance of *Sgt. Pepper's Lonely Cello Band,* in which the

eight cellists and cellos willingly embark on a path of uncertainty and disrupt familiar ways of engaging with their instruments with the help of other musical traditions and objects. While this enables them to create their own tradition and canon, it becomes clear that the making – and making sense – of tradition is largely an embodied exercise. Like the students, traces of previous interactions remain in the bodies of those who perform and negotiate the tradition, which underlines these embodied archives as complex and intertwined systems. This ultimately raises the question of who is capable or skilled enough to create new entrances into this instrument's history and tradition, to actualise this archive's potentialities – at first sight it seems that both an able-bodied person and one with an educational background in this tradition is an important point of departure.

Archival potentiality and actualisation, in this case, emerge from the bodies involved. I propose that this embodied relationship has primarily innovative potential for art education and particularly, of course, classical music education. At the conservatoire, the relationship between student and instrument is examined in moments of playing, of performance – it is rarely scrutinised beyond these moments. Yet students are usually together with their instrument for hours each day. Considering this, they know comparatively little about its materials, construction, development over time, or even its individual trajectory. This has become visible, for example, in students not knowing what to look for when searching for a new instrument. Given that an instrument occupies such a significant place in these musicians' daily lives, students could benefit from education that helps them address the physical and affective complexities of this ongoing engagement.

In recent years, many conservatoires have begun to provide courses, seminars, lectures, and workshops on physical and mental well-being. While the former seeks to illuminate and prevent the physical repercussions of, for example, practising for hours a day in unnatural poses, the latter primarily focuses on helping students deal with the mental stress and pressures that come with being a professional performer. Aspects like this are certainly vital elements in any conservatoire curriculum, yet giving students room to explore the relationship with their instrument in other ways might be an enlightening addition. This could, for example, entail courses and seminars on materials and the role of materiality in music making. In such programmes, students could explore the effect of different types of materials on sound and music (in the case of the cello, for example, different types of wood, strings, endpins, or shapes), as well as alternative or experimental materials. This might further help students address and reflect on their relationship to their instrument, and how this relationship shapes their understanding and performance of the music.

Also inquiring how a given instrument's design has developed over time, and how it is built and constructed in the first place – for example, through visits to or internships at luthiers or more experimental instrument builders and workshops – can enable students to sharpen their ideas of what they want and need from this object, and how it relates to the craft. This could be complemented with formats that scrutinise the specific and individual characteristics of their

own instrument. For example, asking students to write a biography of their instrument, or keeping an instrument diary (not unlike research diaries in other higher education curricula) could enable them to understand how their instrument's particularities feed into processes of learning and playing. Such elements might also give students a way to acknowledge and address the affective layers of this long-lasting relationship, and how to deal with those.

Importantly, I suggest that the aim of such educational elements or activities should not be to attempt to make the embodied explicit, or to rationalise an affective relationship. They should also not be used to eliminate or resolve the uncertainty that lies in these relationships – on the contrary. These elements are about addressing uncertainty, about seeking this uncertainty out and understanding how it shapes the practice and its traditions. This way, such activities might correct the idea of musicians and instruments being mere transmitters of a transcendent art form, and lead towards an understanding of this tradition as a situated, intimate dialogue between humans and materials. Where the normality of this relationship is disrupted and uncertainty is attended to, new things can emerge. Ensembles like the Cello Octet could support students and conservatoires in such exercises and provide a safe space for experimentation and change (that the institution itself or the teachers might not be able or willing to provide). After all, the aesthetic work of maintaining tradition is anchored deeply in our very own flesh and wood – and so is innovation.

9.3 Three archival lenses

In this section, I use my conceptual and empirical insights to articulate three lenses that help researchers reveal and examine the basic mechanisms of how archives include potentialities, and how these are actualised in practice. These lenses might also assist practitioners in identifying potentially unexpected, unrealised, or implicit loci for innovation and agency. Based on my research, I label these lenses *actualising institutional history and identity*, *actualising (inter)mediality,* and *actualising embodied relations*.

The first lens, *actualising institutional history and identity*, is inspired by the case study on the concert programmes of the LSO and VPO (chapters 3 and 4). As the name suggests, with this lens I propose to pay attention to the role that the histories and identities of institutions occupy in the actualisation (and potential innovation) of classical music archives. With this lens, one might ask what role the concrete institutional histories and identities play in how orchestras (or other institutions) actualise classical music, and how they may be considered potentialities for innovation. This requires researchers and practitioners to gain a thorough, practical insight into how an institution works, what its (daily) practices and broader motivations or agendas look like, and how these might differ from other, possibly similar institutions. For example, there might be potentialities for innovation in memories and anecdotes of an institutions' members or audiences; in the importance of certain musi-

cal pieces, repertoires, and even personas – for example, conductors – for the organisation; in its educational programmes and outreach activities; or in its connections to local communities and histories. Exploring such potentialities may also lead to uncovering hidden and neglected histories, conflict, and uncertainty in these organisations.

Yet, while the recognition of such potentialities might not be too difficult – particularly for practitioners and researchers who are embedded in an institution – actualisation depends on organisational settings, conventions, and practices, including an institution's resources, funding, and staff. These factors limit processes of actualisation: after all, musical institutions rely on firm infrastructures to guarantee smooth processes that hold up the aesthetic status quo of classical music performance (Spronck, 2022). In London, for example, the programme note commissioning system, together with the fluctuating audience, hampers an in-depth examination of the orchestra's specific role for the music. While in Vienna the opposite is the case; the orchestra's subscription-based system and its stable audience, together with the concert programme's paper materiality, comes at a cost to accessibility and experimentation. Innovation might start from inquiring what institutional structures and traditions are fundamental to the organisation, what kind of change these might already allow and where, and to what extent they might be subject to change themselves. Looking back at the concert programmes, it becomes clear that the broader traditions, histories, and ephemerality of these artefacts, as well as their related practices – such as writing about music – both limit and enable what these institutions can do.

The second case, which has focused on classical music streaming apps (chapters 5 and 6) has led me to the lens of *actualising (inter)mediality*. With this lens, I propose to explore the roles that different media and technologies – and their intertwined cultures and histories – play in the actualisation of classical music archives, as well as the role that classical music might play for these technologies and how this might change its actualisation. The question raised by this lens might be how different media and technologies intertwine in their relation to classical music and what potentialities can be found in this intertwinement. Here, potentiality rests in how the cultures, traditions, and logics of analogue and digital media may help to (re)organise, present, and navigate classical music. While their tools, functions, or features might not be new in themselves, they may open up new contexts and practices of ordering, navigating, presenting, and distributing this music and its hitherto well-established aesthetics. Notably, this does not mean to transfer just any feature of those media or technologies to classical music; rather, the question is what classical music might 'need' in the online realm.

Also here, processes of actualisation depend on the technologies of these platforms, which develop and change swiftly. This rapid development highlights these media or technologies' capacity for experimentation, yet they simultaneously adhere to certain logics and characteristics of start-up company culture, commodification, and platformisation. The companies seek to attract users from all kinds of backgrounds in order to increase the number of downloads and heighten engagement, requiring a technology or software that

accommodates users who are 'music omnivores' and active on a range of musical platforms, as well as users who are classical music 'lovers' and who already know a lot about the music and might have their own, well-established (offline) listening habits and music collections. As users have become accustomed to online music streaming services operating in specific ways and offering specific features and functions, these technologies and media might entail path dependencies that limit the actualisation of classical music. These also concern the ways in which these classical music streaming platforms order, present, classify, and categorise music, as well as how they might include potentialities for reordering and reorganising this music – as seen with the examples of revised metadata, playlists, curation and algorithmic recommendation, mood players, and radios. In this sense, these services confront users with distinct ordering systems that enable certain mechanisms for actualisation, raising the question of who is and can be involved in actualising this online archive's potentialities. This question becomes even blurrier in the face of human-created algorithms.

Last, the lens *actualising embodied relations* builds on the third case study, in which I examined a musical instrument – namely, the cello (chapters 7 and 8). This lens helps attend to the embodied relationship between musician and instrument and its physical and affective capacities and aspects. This lens poses the following question: what potentialities and ways of actualisation lie in the embodied relationship between musician and instrument? These embodied relationships are not archives to merely conserve this musical tradition – of the music and its works becoming engrained into these bodies, so to say – but archives that are characterised by constant processes of calibrating, relearning, and undoing. The reason for this is that musicians must constantly attend to how the particularities of their bodies and instruments relate to the music. In these particularities, we might find new potentials for innovation. In line with Ingold's critique of the notion 'tacit' – which suggests that embodied processes of learning are not explainable – this lens aims to tease out how these situated, embodied relationships between musician and instrument may reshape classical music and its traditions. Such potentialities might, for example, anchor in (material or other) characteristics of the instrument, in musicians' understandings of their own instrument and how they navigate it, in memories and stories connected to these artefacts, or in attributes of and changes in the musicians' bodies. Also disruptions in this relationship – such as restraints or disconnections – might bear potentialities to explore.

Importantly, these relationships do not exist in a vacuum. The actualisation of such potentialities is embedded in larger educational and institutional frameworks, such as music schools and conservatoires – which lead up to auditions and competitions – as well as other musical traditions, like the role of certain sounds and techniques in the performance of musical works. Traditional teaching and learning models and their hierarchies – which result from classical music's idealist aesthetics – can hamper the exploration of musical ideas, yet, given their individual nature, they might also provide space for the exploration of the role of embodied relationships in this education. This raises the issue of how institutions

can support and make room for such processes in the face of increasingly standardised (and competitive) educational demands.

An important issue in this is also abled-bodiedness. Musicians' bodies usually (are made to) adhere to requirements of playing, and rely on physical integrity, on a normally functioning, healthy body. Certain skills and knowledges – like being able to perform certain techniques or drawing from a related educational background – are important parts of actualising this embodied relationship. There is also a temporal aspect to this: bodies grow, age, and change, further complicating what might be possible in processes of actualisation. Importantly, I do not mean to present 'other' or disabled bodies as mere resources to be used or exploited for innovation. Instead, I propose that the different potentialities that such embodied relationships contain might be able to shift and extend classical music's idealist aesthetics and the exclusionary mechanisms that these aesthetics enable. In actualising hitherto unknown or neglected aspects of different embodied relationships, we might create new understandings and interactions between musicians and materials. This might also lead to a correction or reconsideration of overly romantic ideas of craftsmanship in classical music.

These lenses are neither independent or separable from each other, nor do I claim that they are all-encompassing. Rather, they present related tools that, depending on how and by whom they are used, may be extended, corrected, contested, rethought, and complemented. The lenses also do not exclusively refer to innovations of the artefacts from which I have deduced them but might prove helpful when facing questions of innovation in other fields and areas. In the context of artistic practice, they further situate and specify the role of the notion of archive in relation to the issues of conservation and change. Conservation and change are mutuals in any archive, yet how they are intertwined depends on the concrete mechanisms, systems, and contexts in which these archives are embedded. The lenses can expose how an artwork's – or an artistic practice's – continuing existence depends on a heterogeneity of shifting yet situated traditions, practices, and materials. This, ultimately, can help better understand the contexts and drivers for the conservation of this artistic practice and its aesthetics, and in doing so reveal possibilities and spaces for innovation.

9.4 Lessons for the museum

While I dedicated the main question of this book to what classical music might learn from approaches in the field of contemporary art conservation, what might my case studies – and the three lenses – teach the contemporary art museum and its professionals? In this section, I draw one concrete lesson for the museum from each of my cases.

The first case study on concert programmes has shown the intertwinement of musical works, repertoires, canons, and traditions with the making of orchestral identities and their histories. This is, I would argue, not any different for the museum: museums are institutions

at which artworks, artistic practice, and knowledge thereof are inextricably interwoven with and shaped by institutional identities, histories, and practices. The conservation department is, of course, no exception to this. For example, museums like Tate have a history of 'innovating' conservation both practically and conceptually. Consequently, their contributions to the field of contemporary art conservation have further shaped these institutions' images, their understandings of contemporary art, their ability to secure funding for research projects, their networks, and their educational programmes and public outreach in regard to conservation. Yet it often remains implicit how these institutional identities and histories affect understandings of the art in question, as well as how this art might be conserved at a given organisation.

No conservator works in a vacuum. I would like to see conservators become more aware of the influence that these institutional environments and identities have on their practice. This means to find ways these professionals can attune to the effect of their institution's history and identity on the practices, conventions, and understandings of conservation. This could happen, for example, with the help of external researchers examining institutional conservation histories; empirically or ethnographically investigating meetings, correspondence, and processes of decision-making; documenting potential debates between conservators and artists; exploring the position of a given artist's work in an institution's collection(s); analysing an institution's output (such as scientific articles, conferences, or educational programmes); or creating an inventory of past and present strategies and policies. It might also lead to museums inviting external conservators from other institutions to discuss conservation measures of a given artwork to gain a comparable perspective. Or an exemplary case study (meaning the same artwork) could be presented to a number of conservation professionals from different museums, with each institutional 'party' working alone on strategies of conservation and later exchanging their strategies and results.

Making the effect of 'big' institutions on conservation practice and theory more transparent is also important, considering that smaller museums often suffer a lack of resources, particularly staff and funding. A few museums have become path-breaking in advancing the field. While it is certainly important to have these beacons of light, we might have to consider more carefully how these specific institutions' histories and identities affect the larger understandings of contemporary art and the conservation practices thereof. This is especially relevant considering that these bigger institutions' insights travel fast through their well-established networks.

What lessons does the second case study provide? Here, as it enters the online music streaming realm, classical music becomes both cultural artefact and digital consumption object. Yet art has been intertwined with digital media since roughly the 1960s, as the examples of computer art, video art, internet art, or – the very last development in the long line – non-fungible tokens (NFTs) show. Especially with the advent of Covid-19, museums, galleries, and artists have (just like orchestras and ensembles) begun to organise online exhibitions, as well as stream or broadcast performance art via popular internet platforms such as YouTube, Instagram, or their own websites. Also for the museum, the digital realm lures

with seemingly endless opportunities for accessibility and outreach. The platformisation processes that often go hand in hand with that promise, however, do not only affect how audiences experience the artworks in question. They also affect how these artworks may exist over time, raising new questions about conservation for museums, galleries, and collections. These concern not only the swift technological changes that create uncertainty when it comes to issues of conservation, but the very question of ownership. What does conservation of a work look like when various platforms are involved in its actualisation? Whose responsibility is it to care for works that might exist inside the museum as well as outside of it? Can such digital platforms and environments provide means to care, and if so, what could this look like? For now, how the museum and its professionals manoeuvre the neoliberal interests of external, corporate stakeholders of such media remains an open question.

Activities like documenting, migrating, or emulating are standard conservation practices of digital and online art, but already in 2013, Dutch media art researcher Annet Dekker called for more speculative scenarios to address the questions above. As platforms and media create new aesthetics and parameters that exceed traditional or even recent paradigms of conservation, she has, for example, highlighted the importance of recognising non-institutional communities – such as 'gamers, hackers, and torrent sites' – as important hubs from which to learn about collaborative working practices (Dekker, 2013: 7). From online music streaming platforms, it becomes clear that, even in case of an art form as 'traditional' as classical music, the hybrid existence of artworks will become the norm rather than the exception. And when an artwork exists in manifold ways, it offers new challenges and perspectives for conservation. As a consequence, conservators need to stay alert – for example, by continuing to discuss and exchange case studies, establishing cross-institutional and interdisciplinary collaborations and workshops (also mentioned by Dekker), exploring speculative and situated methodologies, or with the help of curators – as the practices of conservation and curation might further merge in digital and online realms.

While the first two lessons relate to the role of institutions as well as to the implications of art becoming an increasingly digital consumption object, my third case study reveals the importance of embodied human-object relationships in art conservation. By examining how cellists engage and intertwine with their instruments, I have shown that the artwork resides at the intersection of the constantly changing bodies of humans and their cellos. Following from that, musical works become mediators through which to make sense of and create a meaningful relationship between musician and instrument. This has made me wonder what would happen if we understood conservators as musicians, as professionals who engage in a continuous relationship with the art and materials that they seek to conserve.

Notably, conservators have investigated embodied dimensions of conservation, particularly when it comes to artworks that incorporate performative elements created by physical bodies, like performance art, dance, singing, and the like. There, conservators have notated, documented, and instructed bodies and materials to perform the work in question. Yet it

is largely unclear what the role of the conservators' embodied relationship to the various materials and artworks is, and what kind of relationships the artworks mediate for those professionals. Importantly, I do not propose to let conservators' lives interfere with or dictate how to conserve the artworks in question. Rather, I think it is worth asking how artworks and their materials mediate and create meaningful embodied relationships with and for these professionals. As they become integral parts of enabling the continuous existence of these works, conservators might become attached to the artworks in question, affectively and physically. This attachment might shape these professionals' motivations, agendas, and strategies for conservation. In that way, such a relationship might even be considered part of the artwork. On a surface level, this attachment can be seen, for example, in conservators 'specialising' in the conservation of artworks by certain artists within the institution. They might even become responsible for specific works over a longer period of time.

Understanding how this embodied relationship shapes practices and understandings of conservation would mean to think about how an artwork exists in constantly changing relations, and what that means for these relations. Scholars in the field have already made steps in this direction, given, for example, that new materials force conservators to involve external experts in the maintenance of the artwork – hence creating shared responsibility for it (Laurenson, 2013). Issues like this are painted as institutional challenges, yet scholars acknowledge, for example, that participatory artworks challenge how publics may relate to and engage with conservation practice (Marçal, 2017). Feminist approaches have begun to address the positionality of these professionals within institutions (Marçal, 2021). Also writing biographies of artworks, which Van de Vall and colleagues (2011) have suggested as an approach to conservation, might provide space to reflect on who is involved in the artwork's life and how.

Yet there might be other ways to explore points of engagement between conservators and artworks more explicitly. For example, having conservators create a 'map' of a given work (or several works) could help reveal and address relevant aspects in the relationship between a work and the conservators. These maps could stimulate conservators to explore and communicate how and where they relate to and 'work together with' an artwork and its specific materials, physically and affectively. Such maps might include thoughts of affection, challenges and strategies of how to physically engage with an artwork or its materials, or even provide space for uncertainty, conflict, and frustration. Considering them as work-in-progress documents could further stimulate conservators to become aware of changes in this relationship over a longer period, potentially opening up new ways of documenting and record-keeping. By doing so, they might become tools on whose basis networks and connections between artworks and the professionals can be articulated and traced. With the help of such approaches, conservators and institutions can also learn more about the changing role of this profession in the museum.

To conclude, artworks cannot only be understood as archives in themselves. My research has drawn attention to the many ways artworks can become part of other archives, such as the institutions in which they are embedded, larger media traditions and logics, and embodied or

situated relationships. To understand how artworks exist through time, it is necessary to look beyond the artwork as aesthetic object and understand how it might be part of other archives. Knowing these archives and exploring them, in turn, can also help create new paths for action and reflection in contemporary art conservation.

9.5 On the role of interdisciplinarity in conserving the performing arts

Writing this book has been a thoroughly interdisciplinary endeavour, one in which I have sought to examine and demonstrate how the field of contemporary art conservation might assist in opening up classical music and its artistic heritage. As I have shown in Chapter 2, the links between studies of contemporary art conservation, relational approaches from new musicology, art sociology, and music mediation theory are plentiful, warranting further research into how these fields connect and diverge. Despite their varying backgrounds, developments, and focuses, these fields are closely connected when it comes to the conception of artworks, artistic ontologies and how these ontologies are made, understood, and performed in practice. STS has been a helpful bridge in further bringing these fields together, due to its strong background in examining interdisciplinary work in the past and its methodological value in tracing networks of practice, materials, and actors. Particularly this latter point has helped STS already enter the fields of classical music and contemporary art conservation.

In Chapter 2, I have shown how contemporary art conservation has become an increasingly interdisciplinary field in the last decades, but also classical music practice is a fitting example for interdisciplinary work. The pressure exerted by economic, political, and societal challenges has led classical music institutions to become more heterogeneous in nature. The latest example of this is how the Covid-19 pandemic has thrown ensembles, orchestras, and artists into the maelstrom of using technologies in new and unanticipated ways. In fact, in discourses of science, technology, and society, interdisciplinarity has been a popular buzzword for a long time, where it is painted as a productive and mostly unproblematic tool to find solutions for contemporary, societal challenges. This is why, in such sectors, interdisciplinarity is often equated with or seen as the precondition for successful innovation. This simplistic view is problematic and widely contested (Barry, Born, & Weszkalnys, 2008; Supper, 2019). It is also not the reason why I have attempted to bring these fields together. Rather, in the arts, interdisciplinary work takes on a different role: it can initiate, as Andrew Barry, Georgina Born, and Gisa Weszkalnys (2008) argue, epistemological and ontological reflection. Of course, this does not mean that interdisciplinary work in the arts cannot be oriented towards concrete and practical innovations, or economic growth. Alexandra Supper (2019) reminds us that the logics of interdisciplinarity in the arts are not neatly containable but multifaceted and overlapping. Yet, in her research on the artistic sonification of scientific data, she concludes that

particularly epistemological and ontological dimensions are 'often neglected in discussions about the value of interdisciplinarity' (2019: 20).

Throughout this book, I hoped that my approach would stimulate new insights into how artworks of a particular artistic practice or tradition may exist over time, responding and contributing to this epistemological and ontological layer of interdisciplinarity. Bringing the field of contemporary art conservation – with its focus on change, maintenance, and care – together with the practice of classical music allows me to emphasise the importance of interdisciplinarity in conserving the performing arts. My interdisciplinary undertaking was primarily theoretical in nature, yet also conservation practices in the museum might inspire classical music. Some museums, for example, have made conservation processes transparent to the public: in the Depot Boijmans Van Beuningen in Rotterdam – a publicly accessible art storage facility – visitors can peek into high-tech conservation laboratories and watch the professionals at work.[108] Tate has made noticeable efforts to exhibit and communicate conservation processes and practices of collection care – for example, by publishing multiple films on the conservation of paintings such as Mark Rothko's *Black on Maroon* (1958), or by introducing a 'Live List' that contains points to consider when collecting live art.[109] Opening up processes of conservation, change, and care in such ways might also be interesting for classical music. This could consist, for example, of having practitioners (like musicians or programmers) share with audiences how they recover unknown or lesser-known works, how they learn to play a work, or of revealing how musical instruments are built, tested, adjusted, or changed (cf. Dolan, 2020).

Let's also not underestimate the enmeshment between the contemporary arts and classical music. This has become visible in museums and galleries, specifically through artworks and performances that include live orchestral or ensemble music, like the works by the artists Tony Conrad or Anri Sala.[110] Also other artistic forms and musical genres – many of which have spilled into the museum – might bear insights into how to conserve and innovate classical music in the future. This concerns, for example, theatre, dance, and opera, as well as musical forms such as improvised music and electro-acoustic music.[111] Such works challenge museum professionals, whose expertise usually does not lie in conserving music,

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108 Of course, approaches like this should also be subject to critical investigation. While trying to stimulate transparency and communication to the public, what is actually made visible in these high-tech studios may be argued to propagate very specific ideas about what conservation practice is supposed to be and entail.

109 Plenty more resources and examples can be found on Tate's website on collection care research: https://www.tate.org.uk/research/collection-care-research.

110 During the 2019 MCICM symposium 'Rehearsing Orchestral Innovation: Doing Collaborative Research on Symphonic Music Futures', for example, conservators from Tate and classical music practitioners collaborated on the case of conserving Tony Conrad's musical work *Ten Years Alive on the Infinite Plain* (1972). Noga Chelouche (2019), in turn, has explored the dialogue between the visual arts, classical music, and musicological insights in the work of Anri Sala.

111 In 2022, Hannah Bosma, Peter Peters, Floris Schuiling, and I organised the workshop 'Music Beyond Fixity and Fluidity: Preservation and Performance as Instauration', which was hosted by the Lorentz Center in Leiden from 12 to 16 September. In this workshop, practitioners and scholars dedicated themselves to the question of how different genres of music (classical, improvised, and electroacoustic music) exist over time and can be preserved.

making them rely on music practitioners to learn how to bring such works into the future. Contemporary art (conservation) and classical music have already moved closer together.

During this PhD project, I was deeply absorbed in both. I was not merely moving 'in-between' – rather, it was my embeddedness in both fields that enabled me to pursue such a dialogue in the first place. Through my research, I learned that interdisciplinarity is not a zero-sum game: although it might sometimes appear that way, being at home in one field does not automatically mean being an outsider to another. While I often was the 'contemporary art person' to classical music practitioners, and the 'classical music person' to art conservators, I come to recognise that these were not two personas, but one. Doing this research simply meant having to negotiate the fact that I was 'inside' more than one field at the same time, over a longer time, learning to navigating this role and its positionality. In this process, I found that both classical music practitioners and contemporary art conservators are incredibly passionate about the art they are occupied with, and about how to bring this art into the future. This might be the most obvious, but also most important similarity between these communities: they care a lot.

In this book, I did not attempt to attain complete symmetry or synthesis between both fields. This was never the question or goal to begin with. Although classical music and contemporary art conservation share many points of connection, they also diverge from each other. One example of this is the importance of the role of the artist in helping – 'sanctioning' – practices of contemporary art conservation, presenting both a blessing and a curse to museum professionals (Irvin, 2005). Another example is classical music's focus on perfecting a craft, a notion less prominent for conservators of contemporary art. But if they were the same, what would be the point of doing interdisciplinary work in the first place?

On a broader level, working in the MCICM these past few years – and hence becoming involved in the collaborations between musicians, researchers, and orchestra and conservatoire staff – taught me that interdisciplinary work requires practitioners' curiosity, faith, and trust because it is a process of searching and not knowing. Although driven by a shared desire, uncomfortable situations and periods of uncertainty are part of interdisciplinary collaborations. These result from the different backgrounds, careers, roles, and experiences of the involved actors, which have to be recognised and addressed. The establishment of safe ways for actors to communicate becomes considerably more difficult when this work is project-based and relies on fixed-term contracts for its participants, hampering a substantial and sustainable engagement with the challenges at hand (Bijsterveld & Swinnen, 2023). While such projects are important by offering concrete and shared goals, moments of uncertainty and insecurity might require an ongoing, long-term attunement. Such insights are particularly relevant considering the still increasing demands for innovation in classical music and its practice.

Recently, and due to the continuing search for innovation in classical music, concerts have begun to transform into hybrid media events, including, for example, site-specific elements, visual artistries like projections, coloured lighting, installations and objects, as

well as other kinds of performances. While right now such elements still seem exchangeable, presenting quirky additions that are considered extraneous to the music – for example, as a concert format existing next to the undisturbed classical concert – this development will likely progress. Other media, technologies, and art forms might become much more important to both performers and audiences in the future. Classical music practitioners (in all roles and occupations) need to ask what happens if we consider such elements as part of a musical work, or as a new chapter in classical music's tradition. Such an understanding poses new questions and challenges for how to bring this music into the future, pertaining to not only the scope or loci of potential innovations but also their quality. Because of developments like this, I encourage both practitioners of classical music and contemporary art conservation to explore collaborations, overlaps, and frictions in their respective practices. Surely, such collaborations will result in new questions and problems. Yet they will also help to recognise that the question of the future of classical music is one that the classical music community cannot – and need not – answer only by itself.

Appendix I – Institutions and organisations

Vienna Philharmonic Orchestra

The Vienna Philharmonic Orchestra (VPO) was founded in 1842 and is based at the Musikverein in Vienna, Austria. The VPO is part of a tight-knit network of Viennese musical institutions: these include, first, the Musikverein – the Gesellschaft für Musikfreunde Wien – the association from which the VPO rents office and concert spaces and which regularly commissions the orchestra to play concerts in addition to the orchestra's own programme and, second, the Vienna State Opera Orchestra, from which the orchestra selects its members after they have proven themselves eligible by playing for the opera and state ballet for three years (Vienna Philharmonic Orchestra, 'Tradition', n.d.). The VPO operates as a democratic self-administration in which all players meet regularly, as well as an administrative committee consisting of twelve musicians that delegates day-to-day decisions and is elected by the ensemble every four years. The orchestra is well known for its Austrian German musical tradition, connecting closely to composers such as Gustav Mahler and Richard Wagner, and building on repertoire consisting of, for example, Ludwig van Beethoven, Anton Bruckner, and the Strauss family, and many others. While the VPO is well known for its annual New Year's and Summer Night Concerts, as well as its participation in the Salzburger Festspiele, its own regular concerts are subscription based. More recently, the orchestra has been criticised for its the lack of female players and lack of players of non-European ethnicities. www.wienerphilharmoniker.at/en

London Symphony Orchestra

The London Symphony Orchestra (LSO) was founded in 1904 and is a self-governing symphonic orchestra consisting of nearly one hundred players; it is based at the Barbican Centre, London, UK. It is the oldest symphonic orchestra in London and both nationally and internationally renowned. The LSO draws from an extensive repertoire, ranging from (particularly British) symphonic music to film scores and contemporary classical music. The orchestra regularly commissions new musical works. It also engages in local music education and community-building programmes, such as LSO Discovery, LSO St Luke's, and the LSO East London Academy. The ensemble looks back at a long history of recording – starting with gramophone recordings shortly after its foundation – and since 1999, it has published commercial recordings under its own label, LSO Live (Morrison, 2004). The LSO relies on patrons, trusts, foundations, companies, and statutory funders: according to the LSO, the

orchestra 'receives just 20% of its income from public subsidy, raises 17% through vital support and donations, and earns the rest through ticket sales, international engagements, and commercial activities' (London Symphony Orchestra, 'Challenges of Covid-19', n.d.). From 2017 until the end of the 2023 season, the orchestra is under the artistic directorship of conductor Sir Simon Rattle. It is unclear at this point who will follow in his position. www.lso.co.uk

IDAGIO

IDAGIO is a streaming service that specialises in classical music. It is based in Berlin, Germany. The service was founded by Till Janczukowicz and Christoph Lange in 2015. It launched as a streaming application in European iOS app stores in 2015 and became available in the US and Canada in 2018 ('Classical Music Service IDAGIO', 2018). According to IDAGIO, the service is available to users in 160 countries worldwide, offering a service for desktop computers, as well as apps for smart devices operating on both Android and iOS (IDAGIO, 'About', n.d.). It offers a wealth of features and contents, ranging from playlists and interviews to a mood player and the recently introduced live concert video streaming platform named 'Global Concert Hall'. According to IDAGIO, its catalogue contains over two million licenced tracks (Gable, 2023a). The service offers different subscription models, from a free subscription with limited features to more elaborate plans granting access to all functions, including the 'Global Concert Hall'. IDAGIO also contains exclusive content resulting from collaborations with specific artists and ensembles, such as the VPO. IDAGIO claims to operate a 'fair pay model', in which 'up to 80% of net profits from the Global Concert Hall and IDAGIO Interactive go directly to the artists; audio stream revenue is calculated not by stream but by the second, making for a much fairer remuneration model' (Ibid.). www.idagio.com

Primephonic

Primephonic was a classical music streaming service founded in 2014 by Veronica Neo, Simon Eder, Thomas Steffens, and Dirk Jan Vinkin. Its headquarters were based in Amsterdam, the Netherlands. The service's app was launched in its first version in June 2017; a year later, in August 2018, an updated version was published to US, UK, and Dutch app stores. In 2020 Primephonic claimed to be available in 154 countries, including roughly 3.5 million tracks in its catalogue (Primephonic, 'About Us', 2020). Primephonic operated many similar streaming functions and features to IDAGIO, also advertising a 'pay-per-second model to ensure a fair pay-out model that considers the longer duration of classical music works'

(Ibid.). On 30 August 2021, Apple Inc. published a press release stating that the company had bought Primephonic (Apple Inc., 'Newsroom', 2021). Access to the service was ended for users on 7 September 2021. Apple Music still plans to integrate parts of Primephonic into a new classical music streaming service in 2022, but it is not online yet.

Conservatorium Maastricht

The Conservatorium Maastricht is a higher music education institution founded in 1962 in Maastricht, the Netherlands. It trains international and national music students both on a bachelor's and master's level. As part of the Zuyd University of Applied Sciences, the Conservatorium is a founding partner of the Maastricht Centre for the Innovation of Classical Music (MCICM), which has enabled me to conduct research at the institution. The Conservatorium Maastricht consists of classical, jazz, and music in education departments, with all of the departments also providing preparatory junior training (Conservatorium Maastricht, 'Meet our Departments', n.d.). In terms of classical music, the Conservatorium Maastricht offers courses in composition, conducting, instrumental studies, vocal studies, and music theory. www.conservatoriummaastricht.nl

Cello Biennale Amsterdam

The Cello Biennale Amsterdam is a biennial music festival revolving entirely around the violincello. While envisioned years before by its founder, the cellist Maarten Mostert, the first edition of the Biennale took place in Amsterdam in 2006. Today, the festival resides at the Muziekgebouw aan 't IJ and BIMHUIS in Amsterdam, the Netherlands. Under changing themes, the Cello Biennale provides national and international fans of the instrument with countless events, including a variety of concerts and concert formats, master classes, the National Cello Competition, music education programmes, workshops by cello and bow makers, and a sheet music market. The festival is home to a wide range of musical genres, from classical to contemporary, jazz, international music (for example, Arabic or Eastern European), pop, rock, improvisation, opera, and electro. According to Mostert, the funding for the event relies on box office ticket sales and patron donations, as well as grants from foundations and the Dutch government (Mostert, interview, 2020). The Cello Biennale's eighth edition in 2020 was, due to the Covid-19 pandemic, held entirely online. It was additionally financially supported by a Covid-19 help package for the cultural sector by the Dutch government (Mostert, interview, 2020). The complete programme of the event can be found in Appendix III, 'Observations'. www.cellobiennale.nl/en

Cello Octet Amsterdam

The Cello Octet Amsterdam is a Dutch chamber music ensemble consisting of eight cellists. At the moment, the Cello Octet is made up by Sanne Bijker, Claire Bleumer, Sanne van der Horst, Rares Mihailescu, René van Munster, Alistair Sung, Esther Torrenga, and Geneviève Verhage. The cellists organise and govern the ensemble and its engagements themselves. Founded by the cello teacher Elias Arizcuren and his students in 1989 under the name of Cello Octet Conjunto Ibérico, the Cello Octet has been active for over thirty years, thus undergoing manifold changes and configurations when it comes to its players. Today, the Cello Octet is known for its interdisciplinary performances, in which the musicians – who now play without a conductor – experiment with forms of theatre, various technologies, playing styles, repertoire, stage design, and even instrument build. The octet has collaborated with composers such as Arvo Pärt, Philip Glass, Kate Moore, and Michael Gordon and regularly commissions composers to write tailor-made pieces for them. It is also active in schools, taking part in and creating music education programmes and theatres for children. The Cello Octet is a regular guest at the Cello Biennale Amsterdam, where it has performed since its first edition in 2006. The Cello Octet is supported by the Amsterdam Fonds voor de Kunst (Cello Octet Amsterdam, 'About Us').
www.cellooctet.com/en

Appendix II – Archival documents

Vienna Philharmonic Orchestra

Archival research of the concert programmes of the VPO was conducted from 14 to 19 July 2019, at the National Library Vienna's music section at Palais Mollard-Clary, Vienna, and again on 17 June 2020, at the archive of the VPO at the Haus of Musik, Vienna. Access to the repositories was granted by the National Library and Dr Silvia Kargl, the VPO's archivist.

I viewed and digitised the concert programmes that opened the VPO's own subscription or 'Abonnement' concert seasons from 1950/51 onwards in five-year steps. Programmes of special concert events (tours, festivals, New Year's or Summer Night concerts, as well as other engagements) were excluded from the research. Please note that I list titles and names of the musical pieces as they appear in the documents; inconsistencies in spelling or designation are not my own.

Season	Date concert	Volume and issue number	Works played in concert (as labelled in the respective programme)	Conductor
1950/51	17 September	5(1)	Johann Sebastian Bach, Konzert für Streichorchester, G-Dur, Nr. 3 Claude Achille Debussy, La mer, drei symphonische Skizzen Johannes Brahms, Zweite Symphonie, D-Dur, op. 73	Dr. Wilhelm Furtwängler
1955/56	16 October	10(1)	Johannes Brahms, Variationen über ein Thema von Joseph Haydn für Orchester, op. 56a Hans Pfitzner, Symphonie für großes Orchester in C-Dur, op. 46 Richard Strauss, Ein Heldenleben, Tondichtung für großes Orchester, op. 40	Dr. Karl Böhm
1960/61	2 October	15(1)	Anton von Webern, Passacaglia für Orchester, op. 1 Gustav Mahler, Symphonie Nr. 9 in D-Dur	Dimitri Mitropoulos

1965/66	24 October	20(1)	Richard Wagner, Siegfried-Idyll Anton Bruckner, Symphonie Nr. 7 in E-Dur	Georg Solti
1970/71	20 September	25(1)	Richard Strauss, Don Juan, Tondichtung nach Nikolaus Lenau für großes Orchester, op. 20 Wolfgang A. Mozart, Symphonie in C-Dur, K.-V. 200 Johannes Brahms, Symphonie Nr. 2, D-Dur, op. 73	Dr. Karl Böhm
1975/76	5 October	30(1)	Wolfgang Amadeus Mozart, Messe in c-Moll, KV 139, „Waisenhausmesse" Ludwig van Beethoven, Symphonie Nr. 1, C-Dur, op. 21	Claudio Abbado
1980/81	21 September	35(1)	Gustav Mahler, Symphonie Nr. 3, D-Moll	Claudio Abbado
1985/86	6 October	40(1)	Franz Schubert, Symphonie Nr. 8, h-moll, „Unvollendete", D 759 Gustav Mahler, Symphonie Nr. 1, D-Dur	Lorin Maazel
1990/91	30 September	45(1)	Arnold Schönberg, Lied der Waldtaube (aus den „Gurreliedern") Anton Bruckner, Symphonie Nr. 4, Es-Dur (2. Fassung)	Claudio Abbado
1995/96	24 September	50(1)	Franz Schubert, Symphonie Nr. 4, c-moll, D 417, „Tragische Symphonie" Igor Strawinsky, Suite aus dem Ballett „Der Feuervogel" (1919) Richard Strauss, Ein Heldenleben. Tondichtung für großes Orchester, op. 40	Lorin Maazel
2000/01	23 September	55(1)	Johann Sebastian Bach, „Lobe den Herrn, meine Seele", Kantate zum Ratswechsel, BWV 69 Johann Sebastian Bach, Ricercar a 6 aus dem „Musikalischen Opfer", BWV 1079, bearbeitet für Orchester von Anton von Webern Johann Sebastian Bach, „Singet dem Herrn ein neues Lied", Motette, BWV 225 Felix Mendelssohn Bartholdy, „Lobgesang", Symphonie-Kantate B-Dur, op. 52	Helmuth Rilling
2005/06	23 September	60(1)	Arnold Schönberg, Verklärte Nacht, op. 4 Anton Bruckner, Symphonie Nr. 7, E-Dur, WAB 107	Pierre Boulez

2010/11	16 October	65(1)	Felix Mendelssohn Bartholdy, Ouvertüre „Meeresstille und glückliche Fahrt", op. 27 Richard Wagner, Vorspiel und Liebestod aus „Tristan und Isolde", WWV 90 Antonín Dvořák, Symphonie Nr. 7, d-Moll, op. 70	Andrés Orozco-Estrada
2015/16	24/25 October	70(1)	Ludwig van Beethoven, Symphonie Nr. 8, F-Dur, op. 93 Ludwig van Beethoven, Symphonie Nr. 7, A-Dur, op. 92	Herbert Blomstedt
2018/19*	22/23 September	74(1)	Franz Berwald, Symphonie Nr. 3, C-Dur, „Sinfonie Singulière" Antonín Dvořák, Symphonie Nr. 7, d-Moll, op. 70	Herbert Blomstedt

* Last accessible programme at the time of the research.

The signature under which the concert programmes can be found at the National Library Vienna is 743.708-B ZS. In 2019 this signature included the concert programmes between the seasons 1950/51 and 2010/11; the rest was, at that time, not digitised yet and was subsequently provided by Dr. Silvia Kargl via email.

Since the changes in the concert programmes of the VPO were marginal over the years, additional concert programmes from other seasons were only consulted to obtain a better understanding and overview of the tradition and workings of the orchestra, especially through the information provided in the *Musikblätter*. They were, however, not systemically included in the research and analysis.

London Symphony Orchestra

Archival research at the LSO's own archive at the Barbican Centre offices, London, was conducted from 3 to 7 August 2019, and again from 7 to 10 January 2020. Access to the repository was granted by the orchestra's archivist, Libby Rice, who also provided missing parts (e.g. missing pages or programmes) later on via email. The documents bear no signature but are organised chronologically in the orchestra's archive.

As described above, also here I viewed and digitised the concert programmes that opened the seasons from 1950/51 onwards in five-year steps. Programmes of special concert events (tours, festivals, or other engagements) were excluded from the research. The following programmes and programme notes were all coded and subsequently analysed in their entirety. Please note that I list titles and names of the musical pieces as they appear in the documents; inconsistencies in spelling or designation are not my own.

Season	Date concert	Works played in concert (as labelled in the respective programme)	Conductor
1950/51	8 October	Themed concert: 'Music from Films' Walton, 'Spitfire' Prelude and Fugue Vaughan Williams, Three Scenes from 'The Story of a Flemish Farm' Rachmaninoff, Piano Concerto No. 2 in C minor Bliss, Suite 'Things to Come' Franck, Symphonic Variations (Piano and Orchestra) Bax, Music to 'Oliver Twist' Weber, Overture 'Oberon'	Muir Mathieson
1955/56	24 September	Berlioz, Le Carnaval Romain Franck, Symphony in D minor Tchaikovsky, Piano Concerto No. 1 in B flat minor Rimsky-Kovsakov, Capriccio Espagnol	Muir Mathieson
1960/61	16 October	Themed concert: 'Music of Spain' Ravel, Rapsodie Espagnole Falla, Nights in the Gardens of Spain Turina, Procesión del Rocío Falla, The Three-Cornered Hat (complete ballet)	Enrique Jorda
1965/66	3 October	Elgar, Overture, Cockaigne Tippett, Piano Concerto Berlioz, Symphonie Fantastique	Colin Davis
1970/71	6 October	Sibelius, Pelleas and Melisande Suite Sibelius, Symphony No 7 Beethoven, Piano Concerto No 5 (Emperor)	André Previn
1975/76	21 September	Rossini, Overture, The Thieving Magpie Bach, Concerto in D minor for two Violins Nielsen, Little Suite No. 1 Strauss, Till Eulenspiegel Nielsen, Symphony No. 5	Ole Schmidt
1980/81	22 September	Anton Bruckner, Symphony No. 8 in C minor	Yevgeny Svetlanov
1985/86	15 September	Vaughan Williams, Fantasia on a theme of Thomas Tallis Elgar, Cello Concerto in E minor, Op 85 Walton, Belshazzar's Feast	Richard Hickox

1990/91	8 September	Saint-Saëns, Cello Concerto No. 1 Shostakovich, Cello Concerto No. 1 Schnittke, Cello Concerto No. 2 (UK Première)	Thedor Guschlbauer
1995/96	20/21 September	Maw, Spring Music Sibelius, Violin Concerto Ravel, Daphnis and Chloé (complete)	André Previn
2000/01	27 September	Themed concert: 'Berlioz Odyssey' Berlioz, Harold in Italy Berlioz, Symphonie fantastique	Sir Colin Davis
2005/06	18 September / 9 October	Sibelius, Pohjola's Daughter Sibelius, Kullervo Symphony	Sir Colin Davis
2010/11	25 September	Bizet arr. Rodion Shchedrin, Carmen Suite Rodion Shchedrin, Piano Concerto No 5 Mussorgsky orch. Ravel, Pictures at an Exhibition	Valery Gergiev
2015/16	15 September	Mozart, Piano Concerto No 24 Bruckner, Symphony No 7	Bernard Haitink
2019/20*	14 September	Emily Howard, Antisphere (world premiere) Colin Matthews, Violin Concerto Walton, Symphony No 1	Sir Simon Rattle

* Last accessible programme at the time of the research.

Single concert programmes from other seasons, and/or excerpts thereof, were also used for the analysis. This was due to relevant changes in what the programmes looked like, what they contained, or their structure (e.g. offering a new introductory text, changing the structure significantly, or introducing new elements). Mostly, the elements in question would be reprinted, used, or applied for the whole season, which is the reason why below I provide the seasons rather than the specific or single programmes. I used these documents mainly to track changes, so I could form a coherent timeline of how the documents transformed rather than coding and analysing the whole concert programmes. The following list is thus to be understood as an indication of which seasons are relevant to look at if wanting to understand the changes that the concert programmes underwent (from this list, it is, for example, recognisable that programmes changed more frequently in the 1970s and 1980s than in the earlier or later years within the period of the research):

1959/60, 1963/64, 1964/65, 1971/72, 1974/75, 1978/79, 1979/80, 1981/82, 1982/83, 1983/84, 1984/85, 1986/87, 1991/92, 1998/99, 2002/03, 2018/19.

Appendix III – Interviews

The interviews of this study are categorised according to the case study to which they belong; within each case study, the talks are listed chronologically. The occupations of the interviewees represent their position at the time of the interview.

The cello students and teachers of the Conservatorium Maastricht have been anonymised.

Case study 1: Concert programmes of the London Symphony Orchestra and Vienna Philharmonic Orchestra

- Edward Bhesania (Manager at BBC Proms Publications, former Editor at LSO) (2020)
  Interview with D. Petzold, 7 January, London.
- Stephen Johnson (programme note author, writer) (2020).
  Interview with D. Petzold, 8 January, Skype.
- Rupert Ridgewell (Curator of Music at the British Library) (2020).
  Interview with D. Petzold, 9 January, London.
- Fiona Dinsdale (Head of Marketing at LSO) (2020).
  Interview with D. Petzold, January 9, London.
- Libby Rice (Archivist at the LSO) (2020).
  Interview with D. Petzold, 9 January, London.
- Daniel Froschauer (Chairman and first violinist at VPO) (2020).
  Interview with D. Petzold, 16 June, Vienna.
- Wolfang Plank (former Head of Archive and oboist at VPO) and
  Silvia Kargl (archivist at VPO) (2020).
  Interview with D. Petzold, 17 June, Vienna.
- Otto Biba (Director of the Archive of the Gesellschaft der Musikfreunde Wien, programme note author) (2020).
  Interview with D. Petzold, 17 June, Vienna.
- Michael Bladerer (Managing Director and double bassist at VPO).
  Interview with D. Petzold, 17 June, Vienna.

Case study 2: The classical music streaming applications IDAGIO and Primephonic

- Maarten Hoekstra (Chief Commercial Officer at Primephonic) (2020).
  Interview with D. Petzold, 22 September, Zoom (online).
- Alejandra Solís (former Business Developer at IDADIO) (2020).
  Interview with D. Petzold, 12 October, Zoom (online).
- Hugo Shirley (former Head Editor at IDAGIO) (2020).

Interview with D. Petzold, 13 October, Zoom (online).

- Constance Compton-Stewart (former Customer Success Manager at IDAGIO) (2020). Interview with D. Petzold, 28 October, Zoom (online).
- Jen Goertzen (former Product Designer and Research Leader at IDAGIO) (2020). Interview with D. Petzold, 29 October, Zoom (online).
- Dominic Seldis (former Media Ambassador at Primephonic, double bassist at Concertgebouw Amsterdam) (2020). Interview with D. Petzold, 3 November, Zoom (online).

Case study 3: Human-instrument engagements at the Conservatorium Maastricht and the Cello Biennale Amsterdam 2020
Cello students
- Cello student 1 (cello student at Conservatorium Maastricht) (2019). Interview with D. Petzold, 12 November, Maastricht.
- Cello student 2 (cello student at Conservatorium Maastricht) (2019). Interview with D. Petzold, 21 November, Maastricht.
- Cello student 3 (cello student at Conservatorium Maastricht) (2019). Interview with D. Petzold, 21 November, Maastricht.
- Cello student 4 (cello student at Conservatorium Maastricht) (2019). Interview with D. Petzold, 26 November, Maastricht.
- Cello student 5 (cello student at Conservatorium Maastricht) (2019). Interview with D. Petzold, 27 November and 5 December, Maastricht.
- Cello student 6 (cello student at Conservatorium Maastricht) (2019). Interview with D. Petzold, 28 November, Maastricht.
- Cello student 7 (cello student at Conservatorium Maastricht) (2019). Interview with D. Petzold, 4 December, Maastricht.
- Cello student 8 (cello student at Conservatorium Maastricht) (2019). Interview with D. Petzold, 4 December, Maastricht.
- Cello student 9 (cello student at Conservatorium Maastricht) (2019). Interview with D. Petzold, 11 December, Maastricht.
- Cello student 10 (cello student at Conservatorium Maastricht) (2019). Interview with D. Petzold, 13 December, Maastricht.

Cello teachers
- Cello teacher 1 (cello teacher at Conservatorium Maastricht) (2019). Interview with D. Petzold, 11 November, Maastricht.
- Cello teacher 2 (cello teacher at the Conservatorium Maastricht) (2019). Interview with D. Petzold, 14 November, Maastricht.

- Cello teacher 3 (cello teacher at Conservatorium Maastricht) (2019).
  Interview with D. Petzold, 13 December, Maastricht.

Cello Biennale participants
- Sanne Bijker (cellist at the Cello Octet) (2020).
  Interview with D. Petzold, 9 November, Zoom (online).
- Beitske de Jong (freelance music journalist) (2020).
  Interview with D. Petzold, 20 November, Zoom (online).
- Maarten Mostert (Founder and Artistic Director of the Cello Biennale, cellist) (2021).
  Interview with D. Petzold, 6 January, Zoom (online).
- Alexander Warenberg (winner of the 2016 National Cello Competition, cellist) (2021).
  Interview with D. Petzold, 17 January, Zoom (online).

Appendix IV – Observations

Conservatorium Maastricht

Observations at the Conservatorium Maastricht were conducted at the three violoncello classes in the classical department for the academic year 2019/20, and included bachelor's, master's, and contractual students (i.e. students who take part in the one-to-one lessons but are not enrolled in the rest of the regular curriculum of a course or programme).

The total number of cello students enrolled during this period was sixteen. The classes of teacher 1 and teacher 2 both included six students each, while teacher 3's class consisted of four students. Teacher 1 taught three bachelor's, two master's, and one contractual (meaning external) student; of teacher 2's students, four students were enrolled in the bachelor's programme, and two in the master's programme. Teacher 3's class included one bachelor's and three master's students.

The following participant observations were conducted on-site:
- 1 July 2019: entry auditions of applicants for academic year 2019/20, Conservatorium Maastricht
- 15–17 October 2019: one-to-one lessons with teacher 1
- 4 November 2019: auditions for cello seat in Conservatorium Maastricht orchestra
- 4–6 November 2019: one-to-one lessons with teacher 3
- 11–13 November 2019: one-to-one lessons with teacher 2
- 13 December 2019: class concert with teacher 1

Initially, I planned three observational sessions of several days for each one of the three classes, which were communicated to and approved by the teachers, students, and Conservatorium Maastricht in advance (one in November, one in February, and one in May/June; the teachers mostly arranged for their lessons of two or three weeks to take place at once to minimise their travels, thus often spending three or more days in Maastricht consecutively). The next planned observations for February were already disrupted by the advent of the Covid-19 pandemic. Travelling became impossible for the teachers, which affected the teaching arrangements fundamentally. The one-to-one teaching during the rest of the academic year was largely improvised by the individual teachers, making it practically impossible for me to continue systematic observations.

In the following, I was granted access to continue to observe teacher 1's online lessons via Skype and later Zoom. Teacher 3 started individual arrangements with his students, which I could no longer take part in, leading me to drop the observations for this class. Teacher 2 had resolved to irregularly view video recordings of his students and provide written feedback instead of doing live lessons. The class provided me with these documents.

- March/April 2020: video material (ten recordings in total of five students) and written feed back to all recordings by teacher 2
- 2–4 April 2020: online lessons with teacher 1
- June/July 2020: video material (ten recordings in total of five students) and written feedback to all recordings by teacher 2
- 10–12 June 2020: online lessons with teacher 1

In addition to these online arrangements, I kept in touch with a handful of students in order to learn more about their experiences of online learning and playing (mostly through chatting and voice messages). All this communication was collected and gathered in an ethnographic document that also became part of my analysis.

Cello Biennale Amsterdam

Initially, the eighth edition of the Cello Biennale Amsterdam (with the theme 'The Cello Takes Over') was supposed to take place at the Muziekgebouw aan 't IJ and BIMHUIS from 22 to 31 October 2020. I had scheduled participant observations at the festival from 22 to 26 October, obtaining tickets for at least two or three concerts each day I was present (including several master classes, the complete National Cello Competition, and the more alternative late-night CELLOFEST concerts at the BIMHUIS). I also intended to conduct a number of short, on-the-spot interviews with visitors in addition to those already scheduled with staff, musicians, and participants involved in the event (while the latter interviews were still possible to conduct, the visitor interviews were cancelled due to the pandemic).

The in-person event was, because of the Covid-19 pandemic, abruptly cancelled and shifted to a shortened online festival that was streamed publicly (and for free) by Dutch broadcasters NTR and Radio 4 as well as on YouTube, 23–30 October 2020. A maximum of three events took place each day, and master classes were dropped from the programme entirely. This meant that I observed the majority events of the festival – which took place completely without audience – from home.

I observed the following concerts and streams:

- 23 October, 13.30–14.00: Opening
  Tsoupaki, *Thin Air*, performed by Lidy Blijdorp
- 23 October, 14.00–15.00: 'The Next Generation – The Cello Takes Over'
  Stravinsky, *Suite Italienne*, performed by Alexander Warenberg
  Boulanger, *Trois Pièces*, performed by Anastasia Feruleva
  Boulanger, *D'un Soir Triste*, performed by Anastasia Feruleva
  Rimski-Korsakov arr. E. Zimbalist, *Concert Fantasie sur 'Le Coq d'Or'*, performed by
  Anastasia Feruleva
  Reich, *Cello Counterpoint*, performed by De Cellisten van het Residentie Orkest

- 23 October, 20.15–21.15: 'Bach, Schubert en Schumann'
  Schubert, from *Winterreise: Gute Nacht, Der Lindenbaum, Der Stürmische Morgen, Der
  Leiermann,* performed by Jan-Ype Nota
  Bach C*ello Suite No. 3 in C*, performed by Alexander Warenberg
  Schumann, *Märchenbilder*, performed by Eline Hensels

- 25 October, 20.00–21.00: *Sgt. Pepper's Lonely Cello Band*
  The Beatles 'Sgt. Pepper's Lonely Hearts Club Band' arr. David Dramm, directed by Titus
  Tiel Groenestege and Dieuweke van Reij, performed by the Cello Octet Amsterdam

- 26 October, 10.00–15.45: 'National Cello Concours – Ronde 1 & 2'
  Luigi Boccherini, *Sonata in C, G2*
  Martijn Padding, *It sings, it whispers (cello solo)*
  Fauré, *Morceau de Concours*
  Schumann, from *Fantasiestücke opus 73: No. 3, Rasch und mit Feuer*
  Choice between:
  Britten, *Sonata for Cello and Piano in C, opus 65*
  Poulenc, *Sonata for Cello andPpiano, FP 143*
  - 10.00–10.50: Theodoor Heyning
    Padding, Boccherini, Fauré, Schumann, Poulenc
    Accompaniment: Charlotte Brussee on cello, Noriko Yabe on piano
  - 10.50–11.40: Nil Domenech Fuertes
    Boccherini, Padding, Fauré, Schumann, Britten
    Accompaniment: Alice Andreani on cello, Daniël Kramer on piano
  - 11.40–12.30: Pedro Silva
    Boccherini, Padding, Fauré, Schumann, Poulenc
    Accompaniment: Charlotte Gulikers on cello, Noriko Yabe on piano

- 13.15–14.05: Julia Barahal
  Fauré, Schumann, Padding, Boccherini, Poulenc
  Accompaniment: Charlotte Gulikers on cello, Daniël Kramer on piano
- 14.05–14.55: Tom Feltgen
  Boccherini, Padding, Fauré, Schumann, Poulenc
  Accompaniment: Alexander Warenberg on cello, Noriko Yabe on piano
- 14.55–15.45: Catarina Nunes
  Boccherini, Fauré, Poulenc, Schumann, Padding
  Accompaniment: Charlotte Gulikers on cello, Daniël Kramer on piano

- 26 October, 20.15–21.30: 'Elegie voor Anner Bijlsma'
  Carine Bijlsma: short film about Anner Bijlsma
  Luigi Boccherini, *Cello Concerto in G*, performed by Lidy Blijdorp
  Suk, *Elegie*
  Liszt, *Elegie 1*
  Padding, *Homage to (and with) Anner*
  Vermeulen, *Sonate nr. 1 for Cello andPpiano*, performed by Doris Hochscheid
  Accompaniment: Ragazze Quartet, Vera Beths, Dirk Luijmes, Astrid Haring, Frans van
  Ruth, Frank van de Laar

- 27 October, 10.00–15.20: 'National Cello Concours – Ronde 1 & 2'
  Luigi Boccherini, *Sonata in C, G2*
  Martijn Padding, *It sings, it whispers* (cello solo)
  Fauré, *Morceau de Concours*
  Schumann, from *Fantasiestücke opus 73: No. 3, Rasch und mit Feuer*
  Choice between:
  Britten, *Sonata for Cello and Piano in C, opus 65*
  Poulenc, *Sonata for Cello and Piano, FP 143*
  - 10.00–10.50: Fransien Paananen
    Padding, Boccherini, Fauré, Britten, Schuman
    Accompaniment: Charlotte Gulikers on cello, Daniël Kramer on piano
  - 10.50–11.40: Wytske Holtrop
    Boccherini, Padding, Schumann, Poulenc, Fauré
    Accompaniment: Charlotte Gulikers on cello, Daniël Kramer on piano
  - 11.40–12.30: Melle de Vries
    Boccherini, Padding, Fauré, Poulenc, Schumann
    Accompaniment: Charlotte Gulikers on cello, Daniël Kramer on piano

- 13.15–14.05: Benjamin Kruithof
  Boccherini, Padding, Schumann, Fauré, Britten
  Accompaniment: Charlotte Gulikers on cello, Daniël Kramer on piano
- 14.05–14.55: Reinier Wink
  Boccherini, Fauré, Schumann, Padding, Poulenc
  Accompaniment: Anna Litvinenko on cello, Elena Malinova on piano

- 27 October, 20.00–20.15: 'De Cellisten van het Koninklijk Concertgebouworkest'
  Wagner, *Vorspiel Tristan und Isolde*
  Rossini, *Ouverture* from *Wilhelm Tell*
  Mahler, *Adagietto from Symphony No. 5*
  Mascagni, *Intermezzo* from *Cavalleria Rusticana*
  Verdi, *Ouverture* from *La Forza del Destino*
  All performed by De Cellisten van het Koninklijk Concertgebouworkest, accompanied by Anneleen Schuitemaker

- 28 October, between 16.00 and 16.22: 'Biennale TV: Het Nationaal Cello Concours Ronde 1 & 2'
  Backstage interviews with candidates of National Cello Competition by Nander Cirkel & Beitske de Jong, published on the Facebook Channel of the Cello Biennale Amsterdam

- 28 October, 20.15–21.15: 'We'll never let you down'
  Chamber opera over the life of Jacqueline du Pré
  With music by René Samson, Mathilde Wantenaar, Max Knigge; performed by Doris Hochscheid, Mattijs van de Woerd, Frans van Ruth; directed by Mirjam Koen and Gerrit Timmer

- 29 October, 14.00–15.15: 'De Martijn Padding Show!'
  Padding, *Cello Biennale Galop 2016*, performed by Asko|Schönberg and Biennale Cello Band
  Kordzaia, *Alex, how is it going with your Cello Concertino?*, performed by Lidy Blijdorp
  Padding, *Give Me One More Night* (Fridman version 2020, premiere), performed by Maya Fridman
  Padding, *Last Words*, performed by Doris Hochscheid

- 30 October, 20.00–22.30: 'Nationaal Cello Concours Final'
  Haydn, from *Symphony No. 13 in D*: part 2, *Adagio cantabile*

  Solo piece (or part thereof) of choice, composed after 1970:
  Soldado, *O homem das tres pernas*, performed by Pedro Silva

Penderecki, from *Divertimento for Cello Solo: Serenade*, performed by Tom Feltgen

Penderecki, from *Divertimento for Cello Solo: Serenade* and *Scherzo*, performed by Melle de Vries

Penderecki, *Per Slava*, performed by Benjamin Kruithof

Chopin, *Grande Valse Brillante in D, opus 18*

Walton, from *Cello Concerto: Moderato* (part 1) & *Allegro appassionato* (part 2)

Accompaniment: Calefax Rietkwintet, Dostojevski Kwartet, Ying Lai Green, Daniël Kramer

- 2 November, 14.20–14.30: 'Biennale TV: Finale Nationaal Cello Concours 2020' Backstage interviews with finalists and staff of National Cello Competition by Nander Cirkel & Beitske de Jong, published on the Facebook channel of the Cello Biennale Amsterdam

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Impact paragraph

This book investigates what the classical music community can learn from studies of contemporary art conservation about how to innovate its practice and bring the music and tradition into the future. Throughout my research, I show how practitioners and materials embedded in a range of classical music practices engage in the ongoing existence of classical music as a lived artistic practice (rather than merely a performance of transcendent artworks). By bringing together classical music, contemporary art conservation, and science and technology studies (STS), I aim to explore how, in light of the current drive for innovation in the Western European classical music landscape, practitioners may deal with the challenges emerging from innovative processes and projects in a very tradition-laden landscape. In doing so, I address the broader question of how practitioners and researchers may conserve and take care of this artistic practice and its heritage, while simultaneously finding ways to innovate it.

This project is part of the Maastricht Centre for the Innovation of Classical Music (MCICM), a structural collaboration between Maastricht University, Zuyd University of Applied Sciences, and the Dutch orchestra philharmonie zuidnederland. The MCICM aims to shape classical music futures by examining the processes behind changing classical music practice. For this, it brings together music practitioners (music students, orchestra musicians, and other staff), academics and researchers, and other art practitioners.[112] Additional funding for my research was provided by the province of Limburg, the Netherlands. This book constitutes one of the many academic contributions by the MCICM, yet within the centre it is so far the only project actively concerned with the topic of heritage conservation in classical music. It constitutes the main contribution to the MCICM's third research line, entitled 'Adapting sounding heritage'.[113] At the heart of this research line is the question of how to conserve this musical heritage, as well as how to create new strategies to access it. Notably, my colleagues at the MCICM have conducted much empirical work in investigating the practices and processes of innovating classical music, as demonstrated by the project 'Artful Participation: Doing Artistic Research with Symphonic Music Audiences'.[114] This is important to mention as my research project aimed to provide a backdrop against which to better understand the practical challenges of innovation experienced in the MCICM. By conducting research into how classical music tradition and practice has become so static – and who or what is involved in this music's continuing existence and how so – my research project offers fundamental insights into the workings of classical music

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112 For more information on the MCICM, please see www.mcicm.nl.

113 Detailed descriptions of the three research lines and the specific projects they encompass is available under https://www.maastrichtuniversity.nl/research/mcicm-maastricht-centre-innovation-classical-music/mcicm-research.

114 More insight into the Artful Participation project, including its many activities and outcomes, can be found under www.artfulparticipation.nl.

practice, which complements the work of the other research lines in the MCICM. It does so by focusing on the 'pastness' of classical music and its practices, aiming to better understand the relation between tradition and innovation. Therefore, my research will also inform future activities of the MCICM, which I will describe in more detail below. In what follows, I will first reflect on the academic contributions of my research and then discuss its societal impact.

Academic impact

With help of the fields of contemporary art conservation studies and STS, my research fosters and stimulates an interdisciplinary dialogue that helps classical music innovators understanding and approaching processes of innovation from new angles. In Chapter 2, I add to scholarly work both in music scholarship – particularly music sociology and relational musicology – as well as to theoretical approaches in contemporary art conservation studies by relating these literatures to each other in order to develop a nuanced understanding of how art and artworks exist over time. By empirically investigating how this music is brought into continuing existence with the help of various materials and actors, I conclude that it is crucial to develop an understanding of these existing practices and traditions *before* engaging in processes of innovation. I propose to understand the question of innovation as one of conservation, exploring and building on the practices and bodies of knowledge already established. This, I believe, is a relevant insight also to scholars of innovation in other fields.

In my conclusion in Chapter 9, I offer both researchers and practitioners examples of how to do so, further expanding the theoretical framework of this study. I demonstrate that the concept of the archive – a theoretical framework borrowed from the work of conservator and media art researcher Hanna B. Hölling (2015, 2017a) – may be a helpful tool not only to think about artworks but also to view artworks as part of other related archives and practices. In addition to this, I provide detailed surveys of practice-related bodies of literature and scholarship – on concert programmes in Chapter 3, online music streaming in Chapter 5, and embodied learning in higher music education in Chapter 7 – which I hope are useful for the respective practitioners in these practices and sites, either as the basis for future research or as a starting point for innovation.

During my research, I participated in four scientific conferences and symposia. These took place in the fields of STS, contemporary art and heritage conservation, and classical music (innovation). For the MCICM's 2019 symposium 'Rehearsing Orchestral Innovation: Doing Collaborative Research on Symphonic Music Futures', I co-organised a workshop together with contemporary art conservation professionals from Tate (UK), helping to bring the case of conserving Tony Conrad's *Ten Years Alive on The Infinite Plain* (1972) to classical music practitioners and researchers. Here, I made the first steps of bringing experts from both classical music and contemporary art conservation together, crafting a dialogue that helped to inform potential conservation strategies of this artwork. As it turned out, this session proved to be a wonderful preparation for a week-long workshop that I helped co-organise and develop

with three colleagues from Maastricht University (prof. dr. Peter Peters), Utrecht University (dr. Floris Schuiling), and the University of Amsterdam (dr. Hannah Bosma). The workshop was entitled 'Music Beyond Fixity and Fluidity: Preservation and Performance as Instauration' and took place at the Lorentz Center in Leiden from 12 to 16 September 2022. In this workshop, we invited roughly thirty international scholars and music and art practitioners, who engaged in both practical exercises and theoretical discussions about how three different musical genres – classical music, improvised music, and electroacoustic music – exist through time.[115] In this workshop, the notion of archive emerged as an important theoretical concept to understand how music exists, helping me to further specify and probe my understandings of this concept in a larger context and in relation to different musical genres.

My research has (so far) led to two academic publications, both of which are under review or in progress. Based on Chapter 2, I wrote a book chapter on the role of contemporary art conservation in classical music innovation, summarising my theoretical insights for an edited volume of the MCICM's past and current work (Smith & Peters, forthcoming). Currently, I am working to submit an article to a peer-reviewed journal. This article, which builds on Chapters 3 and 4 of this book, examines the role of concert programmes in the making of orchestral identities. After this, I plan to work on two more publications that draw on the research and experiences of this PhD project: first, a peer-reviewed article on the role of not-knowing and idiocy in interdisciplinary collaborations, which has resulted from a workshop that dr. Veerle Spronck (HKU), dr. Ruth Benschop (Zuyd University), and I conducted as an intervention into the pandemic-inspired experiment 'Online Musicking' by the MCICM in 2020. In this paper, we explore what happens when interdisciplinary collaborators find themselves working together, and how experiences of feeling like laymen, strangers, and amateurs may become a productive force in such collaborations. Then, building on Chapters 7 and 8 of this research, Peter Peters and I will co-author an article in the context of ongoing curriculum revisions at the Conservatorium Maastricht. We plan to discuss the innovation of classical music from a conservatoire perspective, further investigating how conservatoires may adapt to prepare students for this changing artistic practice. With the help of the case of the Conservatorium Maastricht, we intend to add to scholarly insights on the innovation of tradition-laden contexts and higher music education.

115 For more information please visit
     https://www.lorentzcenter.nl/music-beyond-fixity-and-fluidity-preservation-and-performance-as-instauration.html.

In the course of next year, I will also be involved in the Sheffield Performer and Audience Research Centre (SPARC, under the directorship of prof. dr. Stephanie Pitts). As a close partner of the MCICM, SPARC offers both networking and research opportunities for classical music innovators and researchers. Funded by the Arts and Humanities Research Council, SPARC will host a range of symposia and a conference for early career researchers in the upcoming year that I look forward to participating in. In this network, I plan to further initiate and stimulate interdisciplinary collaborations and dialogues between classical music and the contemporary art museum.

Finally, an important goal for the next year is to further engage in opportunities that bring the 'musical' perspectives of my research back into contemporary art conservation, for example by participating in workshops and conferences that revolve around the conservation of performance-based art. I am convinced that not only classical music practitioners and researchers can learn from contemporary art conservation; I also hope to explore in more detail what conservators may learn from classical musicians and their practices. This will further strengthen the dialogue between classical music and contemporary art conservation, as well as music scholarship.

Societal impact

While communicating my research to non-academic outlets like philharmonie zuidnederland's magazine *deKlank* (2020, 2023) were important moments of translating my findings into public and societal contexts, in this section I reflect on what else my research can offer classical music innovators practically. In doing so, I would like to highlight my empirical case studies – concert programmes produced by orchestras, classical music streaming applications, and an instrument (the violoncello) – and, based on Chapter 9, summarise the practical suggestions for innovations that my theoretical framework has helped to inspire revolving around these artefacts and their related practices.

The case study on concert programmes of the London Symphony Orchestra and Vienna Philharmonic Orchestra (see Chapters 3 and 4) has demonstrated and opened up the capabilities that these objects hold regarding renewals of orchestral and institutional identities and the production and communication of musical knowledge. Despite building on well-established conventions when it comes to their making, concert programmes can help to innovate how orchestras present both themselves and how the music is connected to these institutions beyond the context of performance. To do so, their producers (for example marketing personnel, authors, and designers) need to take into account the concrete institutional identities, histories, and cultural contexts of the ensembles. In carefully observing these, they may for example shift established ways of working by revealing and building on previously unknown resources, such as musical histories, archival material or local connections, or by assisting the institution in exploring its identity through these documents' materiality, appearance, and haptics or feel. Thereby, it might be important to closely examine an orchestra's audience and – depending

on the institution's relation to this audience – involve this audience in the production of the concert programmes in differing ways (for example by sharing their knowledge, experiences, own archival materials, and memories of the orchestra or the musical pieces). Concert programmes – which, after all, hold valuable musical knowledge and societal clues – could also be made accessible in different ways, responding to an orchestra's resources. For example, through exhibitions underlining their epistemological and artistic value, or as digital documents that can be easier disseminated to hitherto unconsidered audiences. Different material explorations and expansions might also be interesting to orchestras, depending on the institution's values, activities, and aims. Audio postcards and brief radio-like features, for example, might increase accessibility and inclusivity. Investigating new forms like these might innovate how orchestras relate to and use these documents, while also potentially changing, in the long term, how concert programmes engage in the production of musical knowledge and expertise, what this knowledge entails, and how it is communicated and disseminated to the outside.

My case study on the classical music streaming apps IDAGIO and Primephonic in Chapters 5 and 6 has shown how 'cloud' music streaming platforms can innovate how classical music exists online, and how it may be made experienceable and 'navigable' in new ways. Here, innovation takes place by building on and adapting previous modes and conventions of organising and navigating classical music, while also trying to open up and shifting these into new directions. This process involves the respective companies, software developers, designers, customer managers, music curators, (non-)users, and technologies. For example, such apps could introduce new classification systems based on difference rather than likeness in order to diversify the modes in which music can be discovered and explore by users – and therefore also critically interrogate algorithmic processes and their relation to musical discovery. Practices of curation (playlists, playlist-based features, or album collections) could be made transparent by apps and experts, for example, by giving insight into how curators compose a playlist and the decisions involved. Users could collaborate in such curation in order to establish new musical connections, or be allowed to publish their own playlists in order to expand the musical offer and expertise at hand. Communal areas – similar to online forums, but on the apps – might enable users to listen to music together, while comparative listening modes could allow them to compare recordings of a given musical piece and their histories. Functions like this might strengthen user engagement while revealing new musical connections, histories, and meanings. Also these apps' materialities have innovative potentials and affect how classical music is organised on such platforms. They could give users space for individualisation of images and interfaces – for example by uploading pictures of their own CDs and LPs to bring online and offline collections closer together. Making the music elusive or scarce through treasure hunts, limited-time releases, and 'geo-locking' can generate new ways of interaction with the music that pick up on traditional practices of collecting while also questioning and extending these. Innovating classical music on online streaming platforms, however, also requires these companies to shift their focus, at least to some extent, from the

music as a primarily marketable and maximised product for engagement toward features that respond more concretely to the music, its contexts and histories, and relation to users. This may also lead to the development or implementation of functions or modes of operation that respond actively and critically to the existing logics of music streaming more generally.

The third case study on a classical music instrument – the violoncello – as presented in Chapters 7 and 8 testifies to the importance of embodied relations between musicians and their instruments, and this relationship's importance and potentials in innovating classical music. By further exploring this embodied relationship and its physical and affective layers, music education institutions such as conservatoires may find new and alternative spaces of engaging with classical music, which may help students to address the complexities that sit within this embodied relationship (such as the changes that both flesh and wooden bodies undergo over time). For example, conservatoires could help students explore how the material specificities of these bodies – both of the musicians and the instruments – are involved in shaping the music. Interactive lectures or workshops led by other instrumentalists, artists, experimental ensembles, or researchers could invite students to experiment with their instrument, discover the effect of specific materialities on music making and sound, and help them to better understand how this embodied relationship both takes form and could be the source for different or even complementary interactions and techniques. Providing space for such exercises may help students to attend to uncertainties rather than trying to eliminate them and understand how such uncertainties shape processes of learning and performing. While many conservatoires have improved or improve their education on aspects such as mental and physical health, students still know little about the materials they engage with. Researching and writing a biography of their instrument, keeping an instrument diary, or obtaining insights into processes of instrument design and building may deepen understandings of possible interactions and relations, as well as their potentials for innovation. This may also lead to a better understanding of exclusive and inclusive practices in learning and teaching activities. All of this is, I believe, important not only in a classical music context but also in other higher art education institutions, such as theatre or art academies.

In connection to this last point, I look forward to exploring the societal impact of my project in more depth in the coming year. In my current position as postdoctoral lecturer, I continue to do research for the MCICM. In this capacity, I will assist the MCICM in helping the Conservatorium Maastricht to reflect on and potentially realise changes in the institution's curriculum. As classical music practice is changing, the conservatoire seeks to adapt its curriculum in order to better prepare young musicians for the future. In these curriculum revisions, my research will provide an important starting point to formulate best practices and guidelines together. This gives me the opportunity to further explore my theoretical insights in a societally relevant and practical context.

In addition, there might be other possibilities to investigate my findings in practical musical and artistic contexts. Particularly, I would like to further investigate the practical

worth of the three archival lenses, which I introduce in section 9.3 of this book. Rather than seeking to apply or communicate these as ready-made tools, I believe it would be much more worthwhile to explore their value critically in intimate, workshop-like contexts, further enabling them to add to the catalogue of possible innovations above by revealing situated, innovative potentials of existing practices and traditions in classical music. I feel fortunate that I can continue to work on these issues in my current position and look forward to exploring my research's societal potential(s) more concretely in the near future.

Summary

This book explores the relationship between innovation and tradition in classical music, and the broader question of how to conserve its artistic heritage for the future. In recent years, declining and ageing audience members – alongside political and social movements – have led classical music institutions and practitioners across Europe to seek to innovate their practice. This drive for innovation is often construed as being in opposition to this music's long-standing tradition and 'museum-like' practice (Smith & Peters, forthcoming; cf. Goehr, 1992/2007). I argue that innovation and tradition are not a priori contrasts. Instead, I aim to show how they intertwine practically in a classical music context. In doing so, I turn to the contemporary art museum – particularly its conservation department – as a role model for approaching the tension between conservation and change both on a theoretical and a practical level. As classical music practitioners encounter the multifaceted challenge of innovation, the question of how to 'conserve' the musical works on which this tradition is built, as well as how to continue with its many practices, has become an urgent one. From contemporary art conservation professionals, classical music practitioners may discover new understandings about how art exists over time, and witness how these new understandings can stimulate institutional change. This has inspired the overarching research question: *How can approaches from contemporary art conservation assist in opening up classical music while also helping to conserve its artistic and cultural heritage?* With this question, I aim to foster a dialogue between classical music and contemporary art conservation. In this book, this dialogue consists mainly of engaging theoretical approaches from contemporary art conservation with empirical research into a range of selected classical music practices.

Chapter 1 begins with an introduction into the above-mentioned tensions, in particular the question of how to bring together the desire for innovation in classical music with its long-standing traditions and the wish to safeguard its artistic heritage. I argue that the comparison between classical music and the museum has become a faulty one: rather than using the museum to indicate the problems that the classical music landscape is thought to have today, I opt to attend to the (contemporary art) museum as a place of potential learning, change, and innovation. Thereby, I also critically interrogate the supposed meaning and discourse of innovation and show how this notion takes shape in the context of classical music. I continue to highlight the relevance of conservation and care in matters of innovation, further making a case for why to look at contemporary art conservation in particular. By suggesting attending to the relation between innovation and conservation more carefully, I conclude that practices of conservation and care might be considered innovative themselves, and that they may enable an active response to the long-standing values, traditions, and practices of classical music in the face of innovation.

Chapter 2 first introduces the theoretical framework of this study before diving into its methodological underpinnings and concrete case studies. It starts with the most obvious point of intersection between classical music and the museum: the artwork. I trace different understandings of the work-concept, first in music philosophy and musicology, music sociology, and new or relational musicology. I underline those approaches that are particularly relevant to issues of conservation. I argue that these fields can profit from contemporary art conservation approaches for three reasons: (1) the question of conservation is not made explicit in music scholarship; (2) music scholarship is largely descriptive, and its insights remain separated from musical practice; (3) the question of the ontology – the existence – of a work is mostly treated as a philosophical exercise rather than a practical concern of the future. Then, I move to the contemporary art museum. After providing a brief development of contemporary art conservation as a field – a relevant aspect because this development has enabled the field to continuously generate new insights – I show how contemporary art conservators have arrived at different understandings of what an artwork is and how it exists over time. I also reflect on how these approaches relate to the previous understandings in music scholarship. Consequently, I introduce the main theoretical framework of this study: conservator and media art researcher Hanna B. Hölling's (2015, 2017a) concept of the archive, archival potentiality, and actualisation. This approach enables me to shift focus from the artwork itself to its institutional, historical, material, and professional embedding, therefore allowing me to explore the richness of what and who is involved in classical music's continuing existence. Moreover, Hölling's theory helps to reveal the contingencies and routines of this existence on the one hand, as well as potentials and entry points for innovation on the other. The theory's relevance for classical music therefore rests in how it allows to trace and understand past and current ways of 'actualising' a work, while recognising points of exploration, change, and space to 'do things differently'.

Subsequently, I relate Hölling's theory to methodologies in art sociology, which approach the making or existence of art as a collective, collaborative, and unfinished process. Translating Hölling's theoretical approach into my own methodology, I move from the philosophical idea of artworks to thinking about classical music empirically in terms of archives. In the last part of Chapter 2, I present my case studies, which consist of three 'archives' in classical music: concert programmes, classical music streaming applications, and an instrument (the violoncello). As my study is inspired by science and technology studies (STS) – particularly the field's interdisciplinary and practice-based approaches in combination with its continuing attention to the role that materials and objects play in society – these three archives are based on exemplary (yet easily dismissed) artefacts and technologies appearing in different classical music practices. I propose to examine the role that these archives play in the continuing existence of this music, and trace in each case study how classical music is both conserved and renewed in and by the involved materials and actors. Although the variety of the case studies requires a range of methods (such as

ethnographic research, qualitative interviewing, and content analysis), the diversity of the cases helps to underline the complexity and specificity in which classical music exists. Considering the heterogeneity of cases and methods, each empirical investigation is preceded by a chapter scrutinising the most relevant scholarly discussions connected to the respective artefact. These chapters perform these artefacts as archives theoretically, while the empirical counterparts show how these archives operate practically. Together, each pair of chapters makes up a part of this book. The time frame of my empirical research ranges from 1950 to 2020. This period is covered by the cases in differing ways; not all of them are analysed for the whole period. The post-war period marks the point of departure, as the musical landscape was in flux during this time. Geographically, the case studies are located in Austria, the UK, Germany, and the Netherlands. These countries have a well-established classical music history and tradition, as well as an active classical music cultural sector, thus providing coherence in terms of the Western European scope of this study.

Part I of the book focuses on concert programmes: paper booklets that audience members can obtain before a concert to learn more about the musical works being played, the ensemble, or other performers. In **Chapter 3**, I introduce concert programmes and the most important scholarly discussions surrounding these objects. After providing a brief history of the concert programme, I suggest that – inspired by the theoretical framework of the archive – concert programme scholarship needs to approach these documents more holistically in order to avoid blind spots in their analysis. First, I reflect on existing research on programme notes – meaning the brief, informative texts on the musical works that one can find in such a booklet – and discuss how scholars have examined their content, reception, and writing styles. Afterwards, I investigate how music historians, archivists, and librarians in particular have approached the concert programme from a more encompassing (yet retrospective) perspective, for example by considering how its many contents and styles relate to concert life, music history, and ephemerality. I conclude the chapter by proposing that neither one of these strands of literature is sufficient to comprehend what role concert programmes play in keeping classical music's heritage alive. Instead, I argue that a proper understanding of these sociomaterial artefacts can only be achieved through an empirical investigation into how concert programmes are produced, written, and strategised within concrete musical institutions.

In **Chapter 4**, I take up this task of examining concert programmes empirically. This chapter takes the reader into the concert programmes of the London Symphony Orchestra (LSO) and Vienna Philharmonic Orchestra (VPO). This comparative case study combines archival research into the history of the concert programmes at these two institutions with insights gathered from qualitative interviews with staff on how these objects are currently produced, written, and made. After providing a broader overview of how these two orchestras' concert programmes developed and changed between 1950 and 2019, I conduct a holistic analysis of these artefacts. Rather than focus on the reception of concert programmes on behalf of the audience, I study their production in four themes that emerge

from my analysis: (1) the expectations that the LSO and the VPO have about their respective audiences and how these shape the programmes, as well as the supposed role of programmes as audience engagement tools; (2) the importance of musical expertise in writing programme notes; (3) conventions and changes in language and writing, and how these both open up and manifest musical knowledge; (4) and the programmes' materialities, designs, and imageries. I find that these booklets help the two orchestras to both conserve and renew their institutional identities and traditions in very specific albeit different ways. Consequently, how concert programmes are involved in the conservation and renewal of classical music depends on situated institutional identities, histories, contexts, and practices: at the VPO, an ensemble catering to an exclusive subscription audience, concert programmes actively safeguard and conserve the ensemble's identity and traditions, and in doing so adhere these objects' supposed focus on *Bildung* – here, of a local (yet internationally renowned) musical culture. The concert programmes of the LSO, in contrast, help to renew the orchestra's identity by increasingly corresponding to the self-given task of becoming more accessible and visible in a globalised cultural landscape. This has, for example, also affected the programmes' use of musical terminology, potentially shifting well-established ways of communicating and writing about music.

Chapter 5 opens Part II of this book, which revolves around classical music streaming apps. In it, I present discussions around online music streaming and the platforms that are significant for a classical music context. Notably, I focus on academic studies into well-established ways and platforms of online music streaming via smart devices – such as music streaming on Spotify and Apple Music – rather than on research into the relatively new practice of live streaming concerts. Starting with mobility, everydayness, and ubiquity, I move to the 'problem' of musical abundance, practices of curating taste and processes of personalisation and recommendation, as well as the idea of discovery. I end with insights of streaming scholarship about digital materiality and collecting. With the help of the literature and the theoretical framework, I suggest that online music streaming apps can be seen as digital archives of classical music. Based on this, I argue that online or 'cloud' streaming can potentially expand classical music's online existence, dispersing the idealist aesthetics and ways of organisation within which this music has so far been firmly structured.

Chapter 6 complements these insights with an empirical analysis of the two classical music streaming apps IDAGIO and Primephonic. Based on a thorough content analysis of the two apps, which I position in dialogue with qualitative interviews of former staff of the two companies, I show how these two services catalogue, organise, and present classical music. Thereby, I critically interrogate the supposed tension between the 'pastness' of the music and the 'newness' of these technologies. In my empirical analysis, I take to heart Jonathan Sterne's (2003) plea to 'wonder less at the purportedly revolutionary aspects of new sound technologies and more at their most banal dimensions' (p. 338). In line with this, I examine the basic functions and features of the two apps. Five aspects emerge as particularly significant in doing so:

(1) the catalogue and how it is organised by the respective platforms; (2) the seminal role of albums on the apps; (3) the potentials and challenges of playlists and playlisting; (4) the introduction of mood-players and radio functions; (5) and the possibilities of collecting classical music online, as well as the implementation of algorithmic recommendation systems. I find that how IDAGIO and Primephonic organise and present classical music combines different medial traditions, such as the conventions of online music streaming in other musical genres, mixtaping, or more traditional ways of listening to classical music (like via CDs and LPs). I conclude that the two services amplify three aspects in particular: classical music's traditional organisational forms and its recorded history; the commodification connected to the two companies' technological start-up cultures; and the issue of utilising music as a means for self-regulation and self-enhancement.

In **Chapter 7**, I move from the previously digital realm to the embodied realm, drawing attention to the role of musical instruments – in this case, the violoncello – in the conservation and renewal of classical music. Marking the beginning of Part III in this book, this chapter takes the reader into the world of higher classical music education and what it means to learn to play an instrument professionally. In order to understand how musicians and their instruments become part of classical music and its tradition, I first present a brief history of the European conservatoire as a site of musical learning and teaching. With help from scholarly literature – of both historical and ethnographic nature – I discuss this institution's pedagogies and the philosophical ideas behind them. From there, I move to the especially relevant phenomenon of one-to-one tuition, also known as the master–apprentice model in other fields of craftwork. I reflect on the challenges and potentialities that scholars have observed when main subject teachers (for example cello teachers) teach music to a student in individual and intimate lessons, often for a period of several years. In doing so, I show how conservatoires do not only engage in the canonisation or conservation of classical music; they also engage in canonising particular teaching pedagogies and models. In the final section of this chapter, I make a claim to leave the idea of musicians and instruments as invisible 'transmitters' of this music behind. Inspired by post-humanist and new materialist literature, I opt for an understanding of the engagement between musician and instrument that is more nuanced, complicated, and agential in negotiating this music's heritage than the encountered conservatoire pedagogies suggest. I draw attention to the oft-dismissed relational engagement between musicians and their instruments. Importantly, this embodied archive rests neither in the musician nor the instrument only; rather, it rests in their intersection and their ongoing engagement.

Chapter 8 then invites the reader into the Conservatorium Maastricht to witness this relationality themselves. I first share my analysis of observations and qualitative interviews conducted in one-to-one cello classes at the institution within the course of one academic year, showing how different engagements between musicians and their instruments may result in different ways of teaching and learning. While this part of the chapter focuses on the lessons and the interactions between students, teachers, and their instruments, I widen

my look and draw attention to the role that these instruments play in the students' lives. I find that these young musicians' cellos are not merely tools to perform artworks, but that these musical works become a means for the students to mediate their relationship to the instrument, uncovering also the insecurities and unknowns in it. In the second half of the chapter, I move to the Cello Biennale Amsterdam – a festival that celebrates and revolves around the cello as an instrument – in order to explore more alternative engagements between cellists and their cellos. Based on online observations and qualitative interviews with participants of the event (specifically its eighth edition), I argue that the Cello Biennale is a site where tradition and innovation meet and reconcile. In order to show how, I first analyse a more traditional element of the festival – the National Cello Competition – and present how the competition is continuously opened up through the commissioning of new and contemporary works and arrangements. I then move to a more experimental concert of the festival, the Cello Octet's performance of *Sgt. Pepper's Lonely Cello Band*. I discuss how the Dutch ensemble recalibrates and deconstructs well-established interactions between cellists and cellos, for example by developing new choreographies and involving other objects. At the end of the chapter, I conclude that by understanding musical instruments as significant, sounding others, this embodied archive – if taken seriously – might shift long-standing ideas of craftsmanship in classical music practice.

Chapter 9 draws together the insights collected in this book. Throughout, the empirical case studies have demonstrated how artefacts or technologies in classical music are involved in both conserving and opening up this music and its tradition in situated, specific ways. This further demonstrates the intertwinement of processes of conservation and change when it comes to the question of how art exists. On the basis of my empirical research, I conclude that the question of innovation in classical music is a question of conservation: how to conserve and take care not merely of the musical works but also classical music's many heterogeneous practitioners, materials, and institutions (who are also located outside of the concert event)? This heterogeneity demonstrates that conservation and innovation work need to start from classical music as a lived tradition and situated artistic practice, subsequently making clear that conservation and care are fundamental part of any kind of meaningful innovation. By understanding the artefacts or technologies in my case studies as archives, the theoretical framework borrowed from contemporary art conservation studies helps to illustrate something that music or art sociology cannot: it underlines and reveals the contingencies and dependencies that practitioners negotiate when wanting to simultaneously conserve and open up this heritage. It also becomes clear that every archive offers and incorporates a range of potentials that are or are not (yet) explored but which emerge from these situated practices, materials, and actors. This leads me to my main conclusion: I would like to propose that the task of classical music innovation – both for classical music practitioners as well as researchers – is the task to explore and realise the potentials that rest in such classical music archives. Classical music innovators need to *dig out and build on* rather than *break away from*.

In the chapter, I continue to offer concrete suggestions for innovations that employ these theoretical insights in the context of the three case studies: (1) the concert programmes at the LSO and VPO; (2) the classical music streaming apps IDAGIO and Primephonic; and (3) the embodied relationships between musicians and their instruments, specifically in higher music education. I reflect on the potentials and openings pertaining to these situated cases, and in doing so provide an exemplary account of how researchers or practitioners might use these theoretical insights in practice. Based on this, I then propose three tools for classical music innovators to help them explore and discover these archival potentialities. I call these tools archival lenses: (1) the lens of *actualising institutional history and identity*, (2) the lens of *actualising (inter)mediality*, and (3) the lens of *actualising embodied relations*. While each lens is inspired by the respective case studies, they are to be understood as overlapping starting points for observation and exploration, to be further refined and expanded by classical music innovators. As this book has aimed for an exchange between classical music and contemporary art conservation, I then move to the lessons that each case study holds for museum and conservation professionals, further seeking to foster this interdisciplinary dialogue (see also this dissertation's 'Impact paragraph'). Connected to that, I subsequently reflect on the role – or rather, the importance – of interdisciplinary collaborations in the conservation of the performing arts. Here, I also draw on insights from my research process and embedment in the Maastricht Centre for the Innovation of Classical Music. I end with an insight as simple and as complex as can be when glancing into the future of classical music: the conviction that the classical music community cannot – and need not – find answers to the question of innovation all by itself. The contemporary art museum, it turns out, is the perfect place to get to work.

Samenvatting

Dit boek onderzoekt de verhouding tussen innovatie en traditie in de klassieke muziek, en de bredere vraag naar hoe haar artistieke erfgoed voor de toekomst kan worden bewaard. Naast algemene politieke en maatschappelijke ontwikkelingen hebben de afname en vergrijzing van het concertpubliek in de afgelopen jaren bij instellingen en beoefenaren van klassieke muziek in Europa geleid tot een streven naar innovatie van hun praktijk. Innovatie wordt vaak opgevat als in contrast met de stevig gewortelde traditie en 'museum-achtige' karakter van deze muziekpraktijk (Smith & Peters, te verschijnen; vgl. Goehr, 1992/2007). Innovatie en traditie sluiten elkaar echter niet per definitie uit, maar zijn binnen de klassieke muziekpraktijk juist met elkaar verweven. Om te laten zien hoe dit het geval is, grijp ik terug op het museum voor hedendaagse kunst – en dan vooral de conserveringsafdeling ervan – als een rolmodel voor de manier waarop we het spanningsveld tussen conservering en verandering op zowel theoretisch als praktisch niveau kunnen benaderen. Zodra beoefenaren van klassieke muziek hun praktijk willen innoveren, wordt de vraag relevant hoe de muziekwerken waarop deze traditie is gebaseerd 'geconserveerd' kunnen worden. Zij kunnen veel leren van professionals op het gebied van hedendaagse kunstconservering, zoals nieuwe inzichten over hoe kunst door de tijd heen bestaat en hoe die inzichten de aanzet kunnen geven tot institutionele verandering. Deze gedachtegang heeft geleid tot de volgende onderzoeksvraag: *Hoe kunnen benaderingen binnen de hedendaagse kunstconservering bijdragen aan het vernieuwen van de klassieke muziekpraktijk en tegelijkertijd aan de conservering van haar artistieke en culturele erfgoed?* Met deze vraag beoog ik een dialoog te stimuleren tussen de wereld van de klassieke muziek en de wereld van hedendaagse kunstconservering. In deze studie krijgt deze dialoog hoofdzakelijk gestalte door het combineren van theoretische benaderingen uit de hedendaagse kunstconservering met empirisch onderzoek naar een aantal klassieke muziekpraktijken.

Hoofdstuk 1 begint met een inleiding op het hierboven omschreven spanningsveld, in het bijzonder de vraag naar hoe het streven naar innovatie in klassieke muziek kan worden gekoppeld aan de gevestigde tradities erbinnen en de wens het artistieke erfgoed ervan te beschermen. Ik betoog dat de vergelijking tussen klassieke muziek en het museum oneigenlijk is: in plaats van te kijken naar het (kunst)museum om aan te geven welke problemen men vandaag de dag in het landschap van de klassieke muziek veronderstelt, richt ik mij op het museum (voor hedendaagse kunst) als een plek waar leren, verandering en innovatie mogelijk zijn. Daarbij bevraag ik ook kritisch de veronderstelde betekenis van innovatie en het discours erover om te laten zien hoe dit begrip gestalte krijgt in de context van de klassieke muziek. Vervolgens benadruk ik de relevantie van conservering en zorg in kwesties rond innovatie als rechtvaardiging voor het kijken naar praktijken van hedendaagse kunstconservering in het

bijzonder. Vanuit de suggestie dat het goed is om zorgvuldig aandacht te schenken aan de verhouding tussen innovatie en conservering, concludeer ik dat conserverings- en zorgpraktijken als zodanig al als innovatief kunnen worden beschouwd, en dat ze de aanzet kunnen geven tot een actieve reactie op lang gekoesterde waarden, tradities en praktijken binnen de klassieke muziekwereld met betrekking tot innovatie.

Hoofdstuk 2 biedt allereerst een inleiding op het theoretische kader van deze studie, waarna wordt ingegaan op haar methodologische basis en de concrete gevalsstudies. Mijn betoog begint bij het duidelijkste raakpunt tussen klassieke muziek en het museum: het kunstwerk. Ik ga nader in op verschillende opvattingen van het 'werk'-concept in de muziekfilosofie en de musicologie, de muzieksociologie, en de nieuwe of *relational musicology*, en ik leg daarbij nadruk op benaderingen die vooral relevant zijn voor kwesties rond conservering. Deze gebieden kunnen om drie redenen baat hebben bij benaderingen van hedendaagse kunstconservering: (1) in muziekonderzoek wordt conservering als kwestie niet of nauwelijks expliciet gemaakt; (2) academisch muziekonderzoek is grotendeels beschrijvend, en de inzichten ervan worden niet verbonden met de muziekpraktijk; (3) de vraag naar de ontologie – het bestaan – van een kunstwerk wordt doorgaans als een filosofische oefening behandeld, en niet als een praktische aangelegenheid met het oog op de toekomst. Vervolgens richt ik mijn aandacht op het museum voor hedendaagse kunst. Na een korte schets van de ontwikkeling van hedendaagse kunstconservering als veld laat ik zien hoe conservatoren van hedendaagse kunst verschillende opvattingen huldigen over wat een kunstwerk is en hoe het door de tijd heen bestaat. Tevens ga ik nader in op hoe deze benaderingen zich verhouden tot eerdere inzichten binnen het muziekonderzoek. In dit verband introduceer ik hier het voornaamste theoretische kader van deze studie: het door conservator en mediakunstonderzoeker Hanna B. Hölling (2015, 2017a) ontwikkelde concept van 'archief' en van 'archivalische potentie en actualisering'. Deze benadering stelt mij in staat om de focus te verschuiven van het kunstwerk zelf naar zijn institutionele, historische, materiële en professionele inbedding ervan, en hierdoor kan ik de rijkdom verkennen van wat en/of wie betrokken is bij het voortbestaan van klassieke muziek. Höllings theorie draagt bovendien bij aan het verhelderen van de toevalligheden en routines van dit voortbestaan enerzijds, en anderzijds van de mogelijkheden en aanknopingspunten voor innovatie. De relevantie van de theorie voor de klassieke muziek berust dan ook in hoe zij het mogelijk maakt om vroegere en hedendaagse manieren van 'actualisering' van een werk op te sporen en te begrijpen, terwijl tegelijkertijd aanknopingspunten voor onderzoek, verandering en ruimte om 'dingen anders te doen' in beeld komen.

Vervolgens verbind ik de theorie van Hölling met methodologieën uit de kunstsociologie, die het maken of het bestaan van kunst als een collectief, collaboratief en onvoltooid proces benaderen. Na de verwerking van Höllings theoretische benadering in mijn eigen methodologie verschuif ik mijn aandacht van het filosofische begrip van het kunstwerk naar het denken over klassieke muziek in empirische zin, in termen van archieven. In het laatste

deel van Hoofdstuk 2 introduceer ik mijn gevalsstudies die gaan over drie 'archieven' van klassieke muziek: concertprogramma's, streaming-applicaties voor klassieke muziek en een muziekinstrument (de cello). Omdat mijn onderzoek uitgaat van benaderingen en ideeën ontleend aan het wetenschaps- en techniekonderzoek (STS) – met name de interdisciplinaire en praktijkgeoriënteerde benadering ervan, in combinatie met de aandacht voor de rol van materialiteit en artefacten in de samenleving – wordt al gauw duidelijk dat deze drie archieven zijn gebaseerd op kenmerkende (maar vaak genegeerde) artefacten en technologieën uit verschillende klassieke muziekpraktijken. Mijn onderzoek richt zich op de rol van deze archieven in het voortbestaan van klassieke muziek, waarbij ik voor iedere gevalsstudie naga hoe deze muziek zowel wordt geconserveerd als vernieuwd in en door de betrokken actoren en materialen. Hoewel de diversiteit van de gevalsstudies uiteenlopende methoden vereist (zoals etnografisch onderzoek, het kwalitatieve interview en inhoudsanalyse), draagt die methodische diversiteit bij aan het benadrukken van de complexiteit en specificiteit waarin klassieke muziek bestaat. Gezien de heterogeniteit van de besproken gevallen en methoden wordt elk empirisch onderzoek voorafgegaan door een hoofdstuk waarin de meest relevante wetenschappelijke discussies in relatie tot het betreffende artefact worden bestudeerd. In deze hoofdstukken benader ik het betreffende artefact als archief op theoretische wijze, terwijl de empirische tegenhanger ervan laat zien hoe zo'n archief praktisch functioneert. Elk hoofdstukkenpaar vormt een van de drie delen van dit boek. Het empirisch onderzoek heeft betrekking op het tijdvak tussen 1950 tot 2020. Deze periode komt in de gevalsstudies op uiteenlopende wijze aan bod, wat betekent dat de analyse niet steeds de gehele periode omvat. Ik ga uit van de naoorlogse periode omdat daarin het muzieklandschap volop in beweging was. Geografisch zijn de gevalsstudies verbonden met Oostenrijk, het Verenigd Koninkrijk, Duitsland en Nederland. Deze landen hebben een lange geschiedenis en traditie in klassieke muziek, en ook een actieve culturele sector rond klassieke muziek. Dit impliceert dat deze studie zich kenmerkt door een West-Europese focus.

Deel I van het boek richt zich op concertprogramma's: papieren boekjes het publiek voorafgaand aan een concert krijgen om meer te weten over de te spelen muziekstukken, het ensemble of andere uitvoerenden. In **Hoofdstuk 3** ga ik nader in op concertprogramma's en de voornaamste discussies in het onderzoek naar deze objecten. Na een beknopte geschiedenis van het concertprogramma geef ik aan dat onderzoek naar dit type document – uitgaande van het 'archief" als theoretisch kader – gebaat is bij een meer holistische benadering, teneinde blinde vlekken in de analyse ervan te voorkomen. Eerst behandel ik bestaand onderzoek naar programmabeschrijvingen – de korte, informatieve teksten over uit te voeren muziekstukken in zo'n boekje – en bespreek ik hoe wetenschappelijke onderzoekers hun inhoud, receptie en schijfstijlen hebben bestudeerd. Vervolgens onderzoek ik hoe vooral muziekhistorici, archivarissen en bibliothecarissen het concertprogrammaboekje hebben benaderd vanuit een meer omvattend (retrospectief) perspectief, bijvoorbeeld door te kijken naar hoe de uiteenlopende inhoud en stijlen ervan zich tot het concertleven, de

muziekgeschiedenis en vergankelijkheid verhouden. Ik eindig het hoofdstuk met de conclusie dat de bestaande onderzoeksliteratuur tekortschiet waar het gaat om het begrijpen van de rol van concertprogrammaboekjes voor het levend houden van het klassieke muziekerfgoed. Een goed begrip van deze socio-materiële artefacten kan alleen worden bereikt door empirisch onderzoek naar hoe concertprogrammaboekjes worden gemaakt en geschreven en hoe ze strategisch binnen afzonderlijke muziekinstellingen worden ingezet.

In **Hoofdstuk 4** staat zo'n empirisch onderzoek van concertprogrammaboekjes centraal. Ik onderzoek concertprogramma's van het London Symphony Orchestra (LSO) en de Wiener Philharmoniker (WP). In deze vergelijkende gevalsstudie combineer ik archiefonderzoek naar de geschiedenis van de concertprogramma's van deze twee instellingen met inzichten ontleend aan kwalitatieve interviews met stafmedewerkers over hoe deze artefacten momenteel worden gemaakt, geschreven en geproduceerd. Nadat ik overzicht heb gegeven van hoe de concertprogramma's van beide orkesten zich hebben ontwikkeld en zijn veranderd tussen 1950 en 2019, geef ik een meer holistische analyse van de programmaboekjes. In plaats van me te richten op hun receptie door het publiek bestudeer ik hun productie vanuit vier thema's die uit mijn analyse naar voren komen: (1) verwachtingen van het LSO en de WP ten aanzien van hun respectievelijke publieksgroepen en hoe deze het programma bepalen, inclusief de veronderstelde rol van het programmaboekje als instrument om het publiek bij het orkest te betrekken; (2) het belang van muziekexpertise bij het maken van programmabeschrijvingen; (3) conventies en veranderingen in taal en schrijven, en hoe zij muzikale kennis gestalte geven en verruimen; (4) materiële aspecten, vormgeving en ruimte voor verbeelding in de programmaboekjes. Mijn onderzoek laat zien dat de boekjes van de twee orkesten zeer specifiek doch uiteenlopend bijdragen aan zowel het conserveren als het vernieuwen van hun institutionele identiteit en traditie. De manier waarop concertprogramma's een rol spelen in de conservering en vernieuwing van klassieke muziek is dan ook afhankelijk van gevestigde institutionele identiteiten, geschiedenissen, contexten en praktijken: bij de WP, een ensemble dat zich richt op een exclusief publiek van abonnementhouders, dragen de concertprogramma's actief bij aan het beschermen en conserveren van de identiteit en tradities van het ensemble, en hierdoor houden zij vast aan de veronderstelde focus op *Bildung* – in dit geval van een lokale (zij het internationaal beroemde) muziekcultuur. De concertprogramma's van het LSO dragen daarentegen bij aan vernieuwing van de orkestidentiteit door aan te sluiten bij het zelfopgelegde streven naar grotere toegankelijkheid en zichtbaarheid in een geglobaliseerd cultureel landschap. Dit heeft eveneens invloed gehad op bijvoorbeeld het gebruik van muziekterminologie in de programmaboekjes, wat mogelijk leidt tot verschuivingen in gevestigde praktijken van schrijven en communiceren over muziek.

Hoofdstuk 5, het begin van Deel II van dit boek, is gewijd aan streaming-apps voor klassieke muziek. Hierin behandel ik discussies rond online-streaming van muziek en de platformen die belangrijk zijn voor de klassieke muziekcontext. Ik richt de aandacht met name op academische studies over gevestigde manieren en platformen van online-stream-

ing van muziek via *smart devices*, zoals streaming van muziek op Spotify en Apple Music (onderzoek naar de relatief nieuwe praktijk van het live-streaming van concerten blijft hier buiten beschouwing). Na een bespreking van de rol van mobiliteit, alledaagsheid en alomtegenwoordigheid ga ik nader in op het 'probleem' van muzikale overdaad, praktijken rond smaakbeheer en personalisering van het aanbod, alsook mogelijkheid om nieuwe muziek te ontdekken. Ik sluit af met inzichten uit het onderzoek rond streaming over digitale materialiteit en digitaal verzamelen. Op grond van de literatuur en het theoretische kader wijs ik erop dat online streaming-apps voor muziek kunnen worden gezien als digitale archieven van klassieke muziek. Op basis hiervan betoog ik dat online- of *cloud*-streaming van klassieke muziek het online bestaan ervan kan vergroten, wat op zijn beurt tot een verruiming kan leiden van de idealistische schoonheidsopvattingen en organisatievormen waarbinnen deze muziek tot dusver stevig verankerd was.

In **Hoofdstuk 6** worden deze inzichten aangevuld met een empirische analyse van twee streaming-apps voor klassieke muziek, IDAGIO en Primephonic. Op basis van een inhoudsanalyse van deze apps, in combinatie met kwalitatieve interviews van voormalige stafleden van de twee bedrijven, laat ik zien hoe klassieke muziek door deze twee diensten wordt gecatalogiseerd, georganiseerd en gepresenteerd. Daarbij bevraag ik op kritische wijze de veronderstelde spanning tussen de 'belegenheid' van de muziek en de 'nieuwheid' van deze technologieën. In mijn empirische analyse neem ik Jonathan Sterne's (2003) pleidooi ter harte om ons minder te vewonderen over 'the purportedly revolutionary aspects of new sound technologies' dan over 'their most banal dimensions' (p. 338). Vanuit deze blik onderzoek ik de basisfuncties en eigenschappen van de twee apps. Vijf aspecten treden hierbij op de voorgrond: (1) de catalogus en hoe die door de respectievelijke platformen wordt opgezet; (2) de belangrijke rol van albums op de apps; (3) de mogelijkheden en uitdagingen van speellijsten en *playlisting*; (4) de introductie van *mood-players* en radiofuncties; (5) en de mogelijkheden van het online verzamelen van klassieke muziek en de invoering van algoritmische aanbevelingssystemen. Mijn studie laat zien dat in de wijze waarop IDAGIO en Primephonic klassieke muziek organiseren en presenteren verschillende mediale tradities worden gecombineerd, zoals de conventies van online-streaming van muziek in andere muziekgenres, *mix-taping* en meer traditionele manieren van luisteren naar klassieke muziek (zoals via cd's en lp's). Ik concludeer dat de twee diensten met name drie aspecten versterken: de traditionele organisatievormen van klassieke muziek en de opnamegeschiedenis ervan; de commodificatie verbonden met de technologische *start-up*-cultuur van de twee bedrijven; en de kwestie van het gebruik van muziek als middel voor zelfregulering en zelfontwikkeling.

In **Hoofdstuk 7** verruil ik het digitale domein voor het direct beleefde domein door aandacht te schenken aan de rol van muziekinstrumenten – in dit geval de cello – bij het conserveren en vernieuwen van de klassieke muziek. Dit hoofdstuk, het eerste van Deel III van deze studie, neemt de lezer mee naar de wereld van het hogere klassieke muziekonderwijs en wat het betekent om professioneel een instrument te leren spelen. Om

te begrijpen hoe musici en hun instrumenten deel worden van de klassieke muziek en haar traditie geef ik eerst een kort historisch overzicht van het Europese conservatorium als locatie van onderwijs en kennisoverdracht over muziek. Op basis van de wetenschappelijke literatuur – van zowel historische als etnografische aard – bespreek ik de pedagogische aspecten van deze instelling en de filosofische ideeën erachter. Vervolgens ga ik nader in op het bijzonder relevante verschijnsel van het één-op-één lesmodel, ook bekend als het meester-leerling-model in andere vakgebieden, met name de uitdagingen en mogelijkheden van de individuele en kleinschalige setting waarin een hoofdvakdocent (bijvoorbeeld een celloleraar) een student muziekles geeft, vaak jaren achtereen. Hiermee laat ik zien hoe conservatoria niet alleen bijdragen aan de canonisering of conservering van klassieke muziek, maar ook aan het bestendigen van specifieke didactische methoden en voorbeelden. In het slotgedeelte van dit hoofdstuk stel ik voor om de idee van musici en instrumenten als onzichtbare 'overdragers' van deze muziek los te laten. In het voetspoor van post-humanistische en nieuwe materialistische literatuur betoog ik dat het erfgoed van deze muziek juist baat heeft bij het begrijpen van de interactie tussen musicus en instrument als meer complex, genuanceerd en actor-afhankelijk dan naar voren komt in de bestaande didactische partijken van conservatoria. Ik vestig daarbij de aandacht op het vaak genegeerde relationele engagement tussen musicus en instrument. Het is van belang om dit 'belichaamde archief' niet louter met de musicus te associëren, dan wel alleen met het instrument. Het berust juist in hun interactie en voortdurende verbinding.

In **Hoofdstuk 8** wordt de lezer uitgenodigd om in het Conservatorium Maastricht zelf getuige te zijn van deze wederzijdse dynamiek. Ik deel eerst mijn analyse van de afgenomen kwalitatieve interviews en mijn observaties van één-op-één celloklassen aan deze instelling gedurende een studiejaar. Hieruit blijkt hoezeer verschillende interacties tussen musici en hun instrument kunnen leiden tot verschillende manieren van lesgeven en leren. Waar dit deel van het hoofdstuk is gewijd aan de lessen en de manieren waarop studenten, docenten en hun instrumenten onderling verbonden zijn, verbreed ik mijn perspectief door ook aandacht te schenken aan de rol van die instrumenten spelen in het leven van de studenten. Hieruit blijkt dat voor deze jonge musici hun cello niet louter een instrument is om muziekwerken uit te voeren, maar dat deze werken voor de studenten ook een middel worden om hun verhouding tot hun instrument te bemiddelen, inclusief het ontdekken van de onzekerheden en onbekende aspecten die er deel van uitmaken. In de tweede helft van het hoofdstuk ga ik nader in op de Cello Biënnale Amsterdam – een festival dat de cello als instrument viert en centraal stelt – om meer alternatieve vormen van verbinding tussen cellisten en hun cello te verkennen. Op basis van online observaties en kwalitatieve interviews met deelnemers aan de achtste editie van het festival betoog ik dat de Cello Biënnale een evenement is waar traditie en innovatie samenkomen en met elkaar worden verenigd. Om te laten zien hoe dit gebeurt, analyseer ik eerst een traditioneel element van het festival, de Nationale Cello Competitie, en geef ik aan hoe er voortdurend sprake is van een open com-

petitie door het verlenen van opdrachten voor het componeren van nieuwe en hedendaagse werken en arrangementen. Voorts richt ik me op een meer experimenteel festivalconcert, de uitvoering door het Cello Octet van *Sgt. Pepper's Lonely Cello Band*. Ik bespreek hoe het Nederlandse ensemble gangbare interacties tussen cellisten en cello's herijkt en deconstrueert, bijvoorbeeld door nieuwe choreografieën te ontwikkelen en er andere objecten bij te betrekken. Aan het eind van het hoofdstuk concludeer ik dat reeds lang bestaande ideeën over vakmanschap in de klassieke muziekpraktijk kunnen gaan verschuiven door het muziekinstrument op te vatten als een '*significant other*' (die geluid maakt).

Hoofdstuk 9 bespreekt de onderlinge samenhang van de in deze studie verzamelde inzichten. De empirische gevalsstudies hebben aangetoond hoe artefacten of technologieën in klassieke muziek op specifieke, plaatsafhankelijke wijze betrokken zijn bij het conserveren en vernieuwen van deze muziek en haar traditie. Dit is verder bewijs van de verstrengeling van conservering- en veranderingsprocessen als het gaat om de vraag hoe kunst bestaat. Op basis van mijn empirisch onderzoek concludeer ik dat de vraag naar innovatie in klassieke muziek een conserveringkwestie is: hoe te conserveren en zorgen voor niet slechts de muzikale werken, maar ook de vele heterogene beoefenaren, materialen en instituties van klassieke muziek die vaak ook buiten het concertgebeuren te vinden zijn)? Deze heterogeniteit toont aan dat conserverings- en innovatiewerk moet beginnen vanuit klassieke muziek als een 'geleefde' traditie en plaats-afhankelijke kunstpraktijk, om vervolgens duidelijk te maken dat conservering en zorg fundamentele onderdelen zijn van iedere vorm van betekenisvolle innovatie. Door de artefacten of technologieën in mijn gevalsstudies als 'archieven' op te vatten, draagt het theoretische kader – ontleend aan studies over hedendaagse kunstconservering – bij aan iets dat niet door muziek- of kunstsociologie kan worden geïllustreerd: dit kader onthult en onderstreept de contingenties en afhankelijkheden waarmee beoefenaren moeten werken zodra zij dit erfgoed willen conserveren en tegelijk willen vernieuwen. Ook wordt duidelijk dat ieder archief een spectrum aan mogelijkheden omvat en biedt, die al dan niet zijn verkend (of nog niet), maar die voortkomen uit deze concrete praktijken, materialen en actoren. Dit brengt me tot mijn voornaamste conclusie: de innovatie van klassieke muziek – voor zowel beoefenaren als onderzoekers ervan – heeft als taak het onderzoeken en verwezenlijken van de mogelijkheden die in archieven van klassieke muziek berusten. Innovatoren van klassieke muziek dienen *op te graven en voort te bouwen op* in plaats van *los te breken van*.

In dit hoofdstuk geef ik enkele concrete suggesties voor innovaties die gebruikmaken van deze theoretische inzichten in de context van de drie gevalsstudies: (1) de concertprogramma's bij het LSO en de WP; (2) twee streaming-apps voor klassieke muziek, IDAGIO en Primephonic; en (3) de relaties tussen musici en hun instrumenten, specifiek in het hoger muziekonderwijs. Ik reflecteer op de mogelijkheden die betrekking hebben op deze specifieke gevallen, en daarmee geef ik een representatief verslag van de wijze waarop onderzoekers of beoefenaren deze theoretische inzichten in de praktijk zouden kunnen

gebruiken. Op basis hiervan verwijs ik vervolgens naar drie instrumenten voor innovatoren van klassieke muziek die kunnen bijdragen aan het vinden en verkennen van die 'archivalische' mogelijkheden. Ik noem deze instrumenten 'archivalische lenzen': (1) de lens van *actualisering van institutionele geschiedenis en identiteit*, (2) de lens van *actualisering van (inter) medialiteit*, en (3) de lens van *actualisering van belichaamde relaties*. Hoewel deze lenzen zijn geïnspireerd door de respectievelijke gevalsstudies, dienen ze te worden begrepen als elkaar overlappende uitgangspunten voor observatie en onderzoek, om verder te worden verfijnd en uitgebreid door innovatoren van klassieke muziek. Omdat ik mij in deze studie heb gericht op een uitwisseling tussen klassieke muziek en hedendaagse kunstconservering, ga ik nader in op de aan de gevalsstudies ontleende lessen voor museum- en conserveringprofessionals, teneinde die interdisciplinaire dialoog verder te stimuleren (zie ook de 'Impact paragraph' van dit proefschrift). In verband hiermee reflecteer ik op de rol – of liever, het belang – van interdisciplinaire samenwerkingen in de conservering van de podiumkunsten. Hier put ik bovendien uit inzichten gerelateerd aan de manier waarop mijn onderzoeksproces is ingebed in in het Maastricht Centre for the Innovation of Classical Music. Ik sluit af met een even simpel als complex inzicht als het gaat om de toekomst van de klassieke muziek: de overtuiging dat de klassieke muziekgemeenschap voor antwoorden op de vraag naar innovatie geenszins bij nul hoeft te beginnen. Het museum voor hedendaagse kunst, zo blijkt, is de perfecte plek om aan het werk te gaan.

About the author

Denise Petzold (*Aachen, Germany) has a BA in Arts and Culture (cum laude) with an honours programme from Maastricht University. After obtaining her bachelor's degree, she graduated with an MSc in Cultures of Arts, Science and Technology (cum laude), also at Maastricht University. For her master's thesis, in which she traced how performance art is conserved in the museum, Denise was awarded a prize for the best master's thesis by the university. During her studies, she completed a four-month research internship within the project Performance at Tate: Into the Space of Art, funded by the Arts and Humanities Research Council, at Tate, London, UK.

After graduating, Denise worked as a curatorial assistant at the Ludwig Forum für Internationale Kunst in Aachen, Germany. There she organised and managed two blockbuster exhibitions: *Art x Cuba. Contemporary Perspectives since 1989* and *Pattern and Decoration. Ornament as Promise* (the latter in close cooperation with the mumok in Vienna, Austria). She also oversaw the editing of the two shows' accompanying catalogues.

In her PhD project – which was anchored in the Maastricht Centre for the Innovation of Classical Music (MCICM) – Denise investigated what role artefacts and technologies play in the conservation of classical music's heritage, and how this heritage is negotiated in practice. She employed approaches from contemporary art conservation studies to address the tension between 'conserving' and 'innovating' artistic heritage in highly professional and tradition-loaded communities of actors. By bringing together classical music and contemporary art conservation, Denise sought to rethink how musical heritage can be understood and practised, as well as how it can be brought into the future in meaningful ways in the eyes of its practitioners. She has presented her research at institutions such as the Orgelpark Amsterdam, the Conservatorium Maastricht, the Maastricht Centre for Arts and Culture, Conservation and Heritage, the Centre for Contemporary Arts Glasgow, 4S/EASST, and the College Art Association of America. During her doctoral research, Denise also completed the graduate training programme of the Netherlands Graduate School of Science, Technology and Modern Culture.

Currently, Denise is a postdoctoral lecturer at the Philosophy Department of the Faculty of Arts and Social Sciences, Maastricht University. In this capacity, she teaches across several bachelor's and master's programmes of the faculty and continues to do research for the MCICM. Her research interests revolve around the role of technology in artistic practice and heritage conservation, ephemeral materials and new materialisms, as well as processes of craftsmanship and making.

In her spare time, Denise likes to play the cello and the banjo, visit museums, knit, play computer games, as well as get absorbed in spooky fiction. The latter has led her to co-create the German podcast *Null Uhr Eins*, which explores the role of horror fiction in contemporary society and pop culture.