

# Practice-as-Research in Music Performance

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## **INTRODUCTION: ISSUES IN CONTEMPORARY PERFORMANCE STUDIES**

Even though sound recordings have been available for over 120 years<sup>1</sup>, evolving from the wax phonograph cylinder through the shellac disc to the digital MP3 to become ubiquitous artefacts in our contemporary culture, their acceptance as valid documents for musicological research did not happen early on and naturally during the twentieth century. Since its nineteenth-century beginnings as an academic discipline rooted in German philology and hermeneutics, Musicology has been dominated by a textual approach to knowledge production and presentation such that its primary source material, namely the musical score, has been conceptualized as a ‘final, fixed, immortal text’ (Bowen, 1999: 429) the meanings of which can be revealed through the reading and deciphering of abstract musical relationships embedded in the notated symbols. Furthermore, the communication of any understanding and knowledge thus gained about a piece of music would typically be achieved through the creation and dissemination of written texts<sup>2</sup>. Placing its foundations on the tangible score, musicological research throughout the larger part of the twentieth century displayed a dismissive attitude towards not only recordings but to what recordings document, namely musical performances<sup>3</sup>. This attitude is epitomized in Arnold Schönberg’s famous words that:

Music need not be performed any more than books need to be read aloud, for its logic is perfectly represented on the printed page; and the performer, for all his intolerable

arrogance, is totally unnecessary except as his interpretations make the music understandable to an audience unfortunate enough not to be able to read it in print. (in Newlin, 1980: 164)

In this chapter, I first discuss the cultural and historical background for the recent paradigm shift within Musicology from a score-based to a performance-based understanding of music, evaluating the role of digital technologies in the establishment of Performance Studies as a Musicological discipline. The first section also offers a critique of the status quo in Performance Studies by reference to examples from dominant disciplinary discourse, which continues to sustain the assumptions of a score-based ideology of music and thereby marginalizes the role of performance skill and expertise in knowledge production and dissemination within the discipline. In the second section of the chapter, I explore the conceptual problems surrounding the notion of ‘practice-as-research in music performance’, and comment on the possibilities offered by digital technologies to processes of research and to the shaping of research outcomes, and on the continuing role of knowledge production in written, textual formats within practice-based musical performance research. In the final section, I present my practice-based research project titled *Alchemy in the Spotlight*, discussing the challenges the project poses to the dominant discourse and methodologies in contemporary Performance Studies, and arguing for the necessity of multimodal approaches to knowledge presentation and dissemination when researching live musical performances.

The impressive rise of Performance Studies as a musicological discipline over the last couple of decades, which according to Cook and Clarke moved Musicology away from a text-based ideology<sup>4</sup> and an overriding pre-occupation with the score ‘towards an understanding of music as performance’ (Cook and Clarke, 2004: 10), is the result of a felicitous meeting of various complex cultural trends at a specific historical juncture: first, following recent scientific advances that revealed the intimate relationship between the bodily and mental experiences, the decline of the Cartesian model of a disembodied mind in philosophy put an end to the primacy of the mental – and thereby of the abstract – in the construction, representation and reception of knowledge (Damasio, 1994). Contrary to what Descartes believed, ‘our bodily experience is the primal basis for everything we can mean, think, know, and communicate’ (Lakoff and Johnson, 1999: xi), and our physical interactions with the material world are fundamental to any cognitive and affective experience and thereby to knowledge; music is no exception since musical experiences do not originate in the disembodied mind of a listener contemplating abstract musical structures, but rather in the intentional movements of the hand, of the vocal cords, of the musician’s whole body in producing musical sounds. Secondly, the post-modernist emphasis on the role of the body in the construction of subjectivity and knowledge inevitably motivated a change from an understanding of music as abstract structure embodied in the score to one that regards performance as the true site of musical embodiment such that in its absence the notated ‘text’ remains mute and lifeless; this new

conception turned attention to the creation of embodied knowledge, that is knowledge attained in and through practice of performance in a particular cultural context.

Another catalyst in the move towards the emergence of Performance Studies within Musicology has been the recent shift away from monomodality to multimodality in Western culture (Kress and van Leeuwen, 2001). The waning of the dominance of textual practices and the increasing deployment of a mixed set of modes or semiotic resources, including images and sounds, in the making and communication of meanings brought into focus the important role played in contemporary practices by qualities such as colour, layout, font type and size, etc., which for the longest time were regarded as inessential as far as the content of the communicated knowledge is concerned. The implication for Performance Studies of such a multimodal turn has been to emphasize the importance of expressive qualities such as tone colour, touch, articulation, phrasing, tempo and dynamic variations in processes of musical communication. Because such expressive qualities, which preoccupy performers in their efforts to create musical meaning, cannot be notated accurately and cannot, therefore, be textualized, Musicology traditionally regarded them as secondary qualities of musical sounds and structures in comparison to the primary qualities of pitch and rhythm, the two most precisely notatable aspects of music. The influence of multimodality moved the centre of scholarly research from an almost exclusive focus on musical sound as written to musical sound as heard, listened to and made by human beings – with all its vibrating, every-changing, rising and falling tonal shades.

The influence of these complex cultural developments would, nevertheless, have been insufficient to firmly establish Performance Studies as a thriving research area without the powerful impetus of *the* prime mover behind the scene, namely digital technologies. In the absence of digital technologies, the paradigm shift in Musicological thought from a perspective on music as a text in written form to music as enacted and embodied in human performance could not have been realized. First, the appearance of commercially available keyboard instruments, such as the Musical Instrument Digital Interface (MIDI), which can be directly monitored by a computer to record and store all instrumental events of a performance, meant that performance data could be captured with considerable precision from expert performers playing music. Secondly, it is only after the advent of sophisticated software programs that it became possible for researchers to scrutinize in detail the century-old legacy of recorded performances and thereby validate them as primary musicological source documents. Although research on expressive qualities of musical performances go back to the last decade of the nineteenth century<sup>5</sup>, the great majority of data in these early studies derived from measurements of keyboard performances given specifically for research purposes in a ‘laboratory’ setting; without digital technologies the expressive properties of truly inspired – and inspiring – performances by some of the greatest musicians captured in commercial recordings could not be studied in any systematic and rigorous manner. Digital technologies for the first time

allowed musicologists to ‘navigate and browse [sound] recordings’ (Cook, 2007: 186) and obtain rich data, providing ‘the same kind of empirical grasp on performance that we take for granted when writing about scores’ (Cook, 1999: 42). As Clarke has observed ‘the perennial problem with the study of performance is its temporality and hence ephemerality, and if nothing else, concrete performance data [obtained by digital means from recorded performances] at least gives analysts and other parties the assurance that they are dealing with the same thing’ (Clarke, 1995: 52). In this sense, the most significant factor behind the establishment of Performance Studies has been the reification afforded musical performance by digital technologies, which at the same time paved the way for the frequent inclusion, in mainstream disciplinary discourse, of spectrograms, tempo-graphs and corresponding sound files alongside the written text, further supporting the move to a multimodal approach to knowledge production and dissemination.

Ironically, while providing empirical rigour, and thereby scientific status to the study of musical performances, recent digital technologies at the same time have been instrumental in sustaining the values of a score-based, textual ideology that musicologists of a ‘performative turn’ (Cook, 2001, 2003) ardently wished to leave behind. The increasing multimodality in knowledge presentation and dissemination within Performance Studies is not, in this sense, a reflection of a move to a *multimodal conception* of musical performance, which is still largely regarded to function similarly to a *musical score-cum-literary text*. The great majority of the data gathered digitally from recordings – for example, information about the tempo and dynamics of a performance – is represented visually by means of static, spatial graphs, which are rather ‘disturbingly like a score’ (Clarke, 2004: 99). Since it is now possible to go back and forth a recorded performance represented by means of visual graphs, and to dwell on a chosen segment by magnifying it temporally and ‘freezing’ the fleeting event, the temporal essence of a musical performance is transformed into and comprehended in spatial terms, similar to a text on the printed page or the screen. While a performance in real life is unidirectional, cannot be compressed or expanded temporally, and moves from the first note to the last inexorably without any breaks, its spatial representation invites a ‘reading’ of the performance as if it is a written text, by going back and forth at one’s leisure, pondering on selected passages and even stopping half-way to return to it the next day.

The greatest peril for research in musical performance of such tangible, spatial representations that objectify performance data is the illusion they perpetuate that they capture and reflect the dynamics, the artistic experience and expert knowledge involved in the making of a musical performance. In other words, they can – and often do – easily lead to the assumption that empirical research on performance gives researchers access to the artistic principles behind performance making. This misapprehension has been exacerbated by the fact that historically performers and musicologists never interacted sufficiently to develop the tradition of a shared conceptual platform and discourse: consequently, the

dominant disciplinary ideology and protocols in Performance Studies have by convention failed to assign performers themselves any authority over the mechanisms of knowledge production, representation and dissemination. The most serious charge to emerge from such a situation is that Performance Studies has been explaining musical performance without performers, and without any representation of the insider's expert view. The words of theatre practitioner and performance theorist Schechner fittingly sum up this predicament: 'The great big gap between what a performance is to people inside and what it is to people outside conditions all the thinking about performance' (Schechner, 2003: 300).

Consequently, the dominant disciplinary discourse in contemporary Performance Studies within Musicology is shaped not only by a textual approach to music and music making, but also through attempts to assimilate musical performance into a domain of knowledge within which the researcher, studying performances from the outside as it were, can exercise his or her theoretical expertise. For example, Cook argues that 'the study of music as performance is part and parcel of the shift within musicology as a whole towards reception history; performance is self-evidently a form of interpretation, *in just the same way as* are critical or historical writing about music, iconographic representations, or TV and film adaptations' [my italics] (Cook, 2007: 184). Any expert performer would object to such a formulation on the grounds that the embodied-aesthetic quest that drives a musical performances does not overlap in any significant sense with the features defining the kinds of interpretations mentioned by Cook: indeed, there is an all-important ontological disparity between musical performance and critical writings, film adaptations, etc. in that the former is an action, constituted by the *intentional* movements and gestures of the performer driven by artistic principles and aims, while the latter are not. Within the multiplicity of interpretative practices in relation to music, performance stands out as being inexorably connected to the actions of a human agent in a given space at a given time: whether heard live or on a recording, the sounds of a performance are causally related to the aesthetically driven activity of producing the sounds<sup>6</sup>. Research that aims to understand the sounds of a performance – and the physical movements generating the sounds – without consideration of the artistic processes of aesthetic judgment and choice informing them is bound to remain inconclusive in accounting for what happens in a musical performance. Hence, while the strategy of representing musical performance in terms of what is familiar for the musicologist might seem innocent, this practice has been marginalizing performance expertise and its vital role in the generation of knowledge about performances.

The pervasiveness of a textual ideology in studying and conceptualizing musical performance is also evident in the introduction of the term 'acoustic text' (Cook, 2007) to refer to recorded performances, which are regarded as the basic 'repository of evidence' (Leech-Wilkinson, 2001: 1) in Performance Studies. Firstly, the term conceals the aesthetic primacy of live performance as the golden standard in the art of music making within the tradition of Western classical

music, by insinuating that a performance is always crafted in the same way as a written text, and that the two activities have similar histories of becoming. Although the frequently articulated folk-psychological opposition between live and recorded musical performances has been critically disavowed by various scholars (Auslander, 1999; Fabian 2008; Johnson 2010) there is ample evidence indicating that for performing musicians there are significant phenomenological, aesthetic and indeed existential differences between the experiences of performing live and in the recording studio. It is, of course, correct to argue that the technological possibilities offered by the recording studio allow a performer to construct a performance from multiple-takes *after* reflecting upon and evaluating his or her artistic 'product' in the manner of a writer who reflects upon his or her drafts before finalizing the text. Nevertheless, in a live context on stage, which is where all recording musicians start out and develop as performers by cultural necessity, the kind of control a performer has over the performance that unfolds publicly in real time is fundamentally different from the control an author exercises over the final textual artefact that is publicly available. Secondly, and more importantly, the term 'acoustic text' obscures the fact that there is always the potential for failure in the actual making of a live performance unlike in the making of a text, which succeeds or fails according to public verdict following its completion and dissemination as a product. A textual conception of musical performance thus minimizes the value of the skill and expert knowledge involved in performance making, which at the professional level is one of the most complex and demanding tasks human beings accomplish, combining remarkable physical and mental achievement (Altenmüller and Gruhn, 2002; Clarke, 2002).

### **PRACTICE OF MUSICAL PERFORMANCE AS RESEARCH: CONCEPTUAL CONSIDERATIONS**

It is, therefore, a fortunate – and much desired – historical coincidence that various recent cultural and economic factors led to transformations in the structuring and operations of the Higher Education sector and in the funding strategies of Research Councils, creating favourable conditions for the introduction of expert performers into academia and the potential integration of their expert professional knowledge and artistic experience into traditional research cultures<sup>7</sup>. Currently, more and more universities and conservatories offer opportunities for performers to undertake research projects that are specifically structured around their artistic practice, and creative outputs in multimodal formats resulting from such undertakings (e.g. audio and/or audio–visual documentations and representations of the artistic processes and products) are increasingly regarded as valid research outcomes. In this connection, digital technologies offer unprecedented opportunities to the performer–researcher for incorporating his or her practice into the processes of documenting and disseminating his or her research work.

The web-based, open-access, peer-reviewed online multimedia repository PRIMO (Practice as Research in Music Online), for example, makes it possible for performers to disseminate their research outputs in audio, video, graphics and/or multi-media formats to the wider research communities<sup>8</sup>.

Because the development of a cultural environment in Higher Education Institutions where the performer can undertake artistic practice of musical performance with an imperative to contribute knowledge and insight to Performance Studies is a very recent phenomenon, there are, as yet, no firmly established models and methodologies, and no discursive cohesion among the presentations of knowledge that is generated by this kind of research. Furthermore, as 'the latest (the last) scion in the family of knowledge in Western society, a descendant that is currently in a frank phase of growth through trial and error' (Coessens et al., 2009: 44), such research-driven artistic practice poses fundamental challenges to the basic paradigms of traditional research. Consequently, there are ongoing debates concerning the conditions under which performance can be regarded as research, the ways it establishes and advances knowledge in the discipline of Musicology, and the nature of the research outcomes.

Among the various terms that are used to describe research undertaken by practitioners and which involves practice as an integral part of its methodology and output, one in particular requires conceptual deconstructing since it complicates the relationship between practice and research by entailing their identity: this is 'practice as research'. In other words, when applying the term to musical performance, one would conceptually identify performance, and therefore the performing activity that produces the performance as product, as a research activity. Clearly, not all musical performance is *ipso facto* research: there is a distinction – an important distinction – between professional practice of musical performance, and the practice of musical performance as part of a research enquiry<sup>9</sup>. Is there any basis then on which a given musical performance can be identified as constituting a research activity? What could it mean to say of a musical performance as it unfolds – while performers make it and listeners listen to it – that it *is* a research activity, as distinct from a 'research-informed performance', for example, which is conceptually quite clear?

My position in this regard is that performing music in the Western classical tradition is *never, as it unfolds in real time, identical to a research activity*<sup>10</sup>. I do not make this assertion based on folk-psychological prejudices against traditional research that regard it as an objective, distanced, unemotional undertaking. On the contrary, I believe that both artistic practice and traditional research can be creative, passionate, and involve complex cognitive and affective processes as well as theorizing. Nevertheless, performing music does not – indeed cannot – involve any reflective component by the performer, at least not in the way we understand it to be a crucial aspect of any research activity: as a defining feature of research, reflection always offers the researcher the possibility to change, improve, transform, expand, and re-work his or her ideas and their manner of presentation *before* the research outcome is made publicly available.

This possibility is simply not present for the performer during the making of a live performance.

Even when the performance takes place as part of an ongoing research activity, *while it happens* it is bracketed as an artistic undertaking that is continually striving towards singularity and is concerned not with the creation, representation, dissemination of new insight, understanding or knowledge, but rather with the making of an affectively charged, hopefully magical, and transformational experience. While performing music, the performer's devotion is to the music and not to any research questions. It is important to note that other processes that are part of the totality of musical performance practice, such as the preparatory processes that take place in practice sessions and rehearsals, can indeed be identified as research activities in the sense that the temporal structuring of these processes allows the performer to interrupt the unidirectional flow of the music, to stop and reflect on what s/he has just played, and to experiment with the music. Nevertheless, the fact that performers think about what they do rigorously, that they experiment on a daily basis with the music they play, that they are involved in complex cognitive and affective operations and implicit theorizing, is not sufficient to render the resulting live performance a research activity; that there is expert knowledge and skill embodied in the activity of performance-making does not automatically qualify the performance as research. To hold such a view would all but collapse the distinction between research and virtually any other kind of activity that involves expertise and skill, and as such would not offer any substantial arguments to clarify the issues surrounding artistic activities integrated within research enquiries. For conceptual clarity, then, when musical performances and certain research imperatives meet in a broader set of activities by the practitioner-researchers, the totality of the undertakings can be referred to as 'practice-as-research (or practice-based research) in musical performance' rather than as 'musical performance-as-research'. Musical performance in the Western classical tradition as a real-time, embodied, unidirectional phenomenon can be integrated into a research activity only as artistic practice, and it is the particular dynamics between this practice and the reflective exploration and theorizing that shapes this particular kind of research.

Such a stance has significant implications regarding the appropriate forms and formats in which the findings of practice-based research can be (re)presented in that if a performance itself is not a research activity, then an audio or audio-visual recording of it does not constitute a research output. As part of a research enquiry any musical performance needs to be contextualized by means of pre- and/or post-performance reflection, meaning that the practitioner-researcher reflects on the relationship between the research questions being explored and the particular performance in question, and subsequently presents this reflection in a medium that is separate from the audio-(visually) documented performance, so that the knowledge, creativity and experience generated during and through the performance does not remain simply locked into it. Ongoing discussions about the nature this medium should assume is one of the divisive issues in

practice-as-research in music: on the one hand, some claim that a musical performance is its own argument in its specifically musical language and that no other medium should be required to establish the knowledge-bearing status of a musical performance. On the other hand, some argue that what is required is not a demonstration of the knowledge-bearing status of performance but of the processes of knowledge production in a form that allows other researchers to retrace its history of becoming. I have argued elsewhere (Doğantan-Dack, 2008) that because the foundations of knowledge production and research in the Western tradition prioritize reason and propositional knowledge over and above affect and know-how, all too often even the obvious fact that musical performance embodies expert knowledge has to be argued for and demonstrated with ample evidence<sup>11</sup>. When the performance is part of a research enquiry, it becomes even more urgent to demonstrate the processes of creativity and knowledge that form part of pre- and post-performance reflection in a medium that is different from the documented performance, such as a text, further audio-visual or multi-modal material so as to contribute to the research context. PRIMO, for example, requires a textual supplement that describes and gives a summary of the submitted item's content 'and an insight into its contribution to current research'<sup>12</sup>.

The reflective component of practice-based-research in musical performance further problematizes the discourse of Performance Studies by seeking to represent situated knowledge derived from the performer's perspective. The dominant disciplinary discourse is still very much the product of an attitude relentlessly pursued in the name of objective, scientific research since the beginnings of Musicology as an academic discipline, and as such it continues to largely shun away from expressions of the subjective, of the affective and the ephemeral. As Cumming has observed:

... the 'quest for certainty' can have interpreters [theorists] avoiding comment on any aspect of musical content for which they cannot find an empirical foundation. Comment on such things as sound quality and its signification, or the affective connotation of a phrase, do, for example, present a greater risk to an interpreter [theorist] who wishes to project the image of secure knowledge, because the factors informing aural judgments of this kind are not always readily accessible ... and they cannot be specified by reference to a score. (2000: 46)

Consequently, aesthetic value judgments in relation to musical performance – regarded too vague and subjective – remain outside the purview of Performance Studies. Studies that analyze and compare recorded performances invariably refrain from making assertions about the aesthetic quality of the performances being explored, and as such do not reveal knowledge about the very fundamentals of the performer's artistic activity, which is continuously driven by value judgments of one kind or another. For the performers, aesthetic evaluations motivate the acceptance or rejection of various musical possibilities that are entertained as an interpretation of a piece develops. The insider's view on what happens in a musical performance – and why – can only be articulated through a discourse that takes account of and thrives on the situatedness, the very

subjectivity of the aesthetic judgments made by the performer in relation to his or her performance. In the words of Cox, 'artistic research must be rigorous, but it cannot be simultaneously objective and artistically engaged. Yet another turn is required, a fundamental re-appraisal of the role and legitimacy of the interposed sensibilities of the researcher – one which perceives them as validating the research, rather than compromising it' (in Coessens et al., 2009: 10). One of the most significant contributions of practice-based research projects to contemporary Performance Studies is the increasing awareness they bring regarding the fundamental artistic principles, methods, practices and values that drive and sustain musical performance; indeed, an awareness that 'the relationship between studying performance and doing performance is integral' (Schechner, 2002: 1). Within the totality of all activities that define 'performance practice' in the Western classical tradition, it is in the processes of live public performance that the artistry of 'doing performance' is fully represented; and it is, therefore, in these processes that the fundamental principles of artistic performance should be explored.

## THE ALCHEMY PROJECT

Questions relating to the nature and experience of performing live have rarely been asked in Performance Studies, which built its epistemological as well ontological foundations on recorded performances. 'Musicology's perpetually absent objects' (Abbate, 2004: 514), live performances nevertheless continue to be the touchstone in the artistic practice of performance making in the Western classical tradition. The artistry of a performer that is revealed during a live performance is culturally highly valued since on stage s/he has to achieve a successful performance in an environment that is doubly constrained by the inherent indeterminacy of the event and the necessity of uninterrupted flow, mobilizing a remarkable range of skills and experiences. In cultural terms, it is particularly important to articulate the significance of live musical performance as the ultimate norm in classical music practice when performances recorded and edited in the studio provide the context for an overwhelming majority of musical experiences. The practice-based research project titled *Alchemy in the Spotlight: Qualitative Transformations in Chamber Music Performance*, funded by the AHRC<sup>13</sup>, and directed by this author is the first research undertaking to explore live performance from the perspective of professional performers<sup>14</sup>.

The Alchemy project concerns investigating the individual and collective cognitive and affective processes involved in performing live in public in the context of a professional piano trio, which has been specifically established for this project (Marmara Piano Trio)<sup>15</sup>. The practices of the piano trio in rehearsals, workshops and live performances are central in addressing the research questions posed. One of the aims of the project is to identify and explore the magic that performers sometimes experience during a live performance. In formal terms,

performance magic is related to certain qualitative transformations, referring to certain processes that are peculiar to live performance contexts as distinct from the processes involved in rehearsals and practice sessions. During a live performance, the cognitive/affective world of the performers and consequently the interpretation of the music they perform often undergo certain qualitative transformations. These transformations are related to such phenomena as increasing expressive freedom, increasing affective involvement, unplanned creative interpretative choices, and certain alterations in time-consciousness, which turns the ordinary into something special on stage: a process of alchemy. The Alchemy project explores the conditions of emergence of such transformations in the context of a professional piano trio preparing and performing selected works from the Classical, Romantic and Contemporary repertoire; it compares and contrasts the processes that take place in rehearsals/practice sessions with those that unfold during a live performance. Existing research on chamber music practice focuses on the preparatory processes rather than the live event itself<sup>16</sup>. However, because live performance is characterized by an inherent indeterminacy such that the individual and collaborative cognitive–affective processes involved in the preparatory phase do not lead to those that shape the live event through the logic of linear causality, it is not possible to understand all that happens in a live performance by reference to the preparatory processes alone. There is, in this sense, a qualitative difference between preparatory processes and the performance itself. Neuroscientist Damasio articulates this difference as a passage over a threshold:

I have always been intrigued by the specific moment when, as we sit waiting in the audience, the door to the stage opens and a performer steps into the light; or, to take the other perspective, the moment when a performer who awaits in semidarkness sees the same door open, revealing the lights, the stage, the audience. I realized some years ago that the moving quality of this moment, whichever point of view one takes, comes from its embodiment of an instance of birth, of passage through a threshold that separates a protected but limiting shelter from the possibility and risk of a world beyond and ahead. (1999: 3)

One of the most significant hypotheses of the Alchemy project is that the intentional processes that performers undertake to achieve positive qualitative transformations during a live performance do not invariably lead to such transformations, which may or may not take place during the actual event; consequently, investigating them is contingent on making them happen in the first place. Rather than planning and predicting them, performers can only take risks and wish for them to happen. In this sense, the professional practice of live performance is the only valid instrument of research for exploring the qualitative transformations in question.

The Alchemy project challenges some of the received and established notions about music performance within contemporary Performance Studies. One of these concerns the way live performance has been conceptualized. Accordingly, the purpose of all preparatory processes is to get the musicians ready for the final

stage of public performance, where an interpretation that is fixed in its details during the practice sessions and rehearsals is unfolded for an audience. Indeed, it is in part this conception that has led researchers who aim to understand how performers work to focus exclusively on the processes involved in practice sessions and rehearsals, and to neglect issues relating to performing live in public. Performers, however, do continue to learn on stage, which can be regarded as their workplace, and it is the new knowledge thus acquired that becomes the basis for future superior performances. In other words, there is a kind of expert musical knowledge that simply cannot be acquired in the practice room. Pianist Sviatoslav Richter, for instance, is known to have said that it was only at his fourth public performance of Mozart's Piano Sonata in A minor that he achieved what he considered a satisfactory interpretation (in Neuhaus, 1993: 206). The Alchemy project aims to articulate this knowledge and to change the dominant conception of live performance by arguing that from the performer's perspective, it represents only an intermediary arrival point in the unfolding 'life' of a piece of music in 'the hands' of performers, so to speak, rather than a final, fixed state.

In this connection, the project provides further support for the hypothesis that a musical performance is not identical to a research activity. One of the research findings of the Alchemy project is that the way performers attain new knowledge about performance making on stage, that is the way they continue to learn through live performance, does not fit the model that represents learning or the coming to know in traditional research.

The origins of this model go back to Plato's *Allegory of the Cave*: the prisoner who can break away from his/her chains of ignorance in the darkness of the cave and undertakes the difficult journey to the outer world and towards the light, ultimately *beholds* the Platonic Forms, that is the essence of each and every phenomena. It is at this moment of visual beholding that s/he comes to know reality<sup>17</sup>. This is a conceptual manner of knowing in that the internal structuring and outer form of the Idea or Platonic Form is clearly 'grasped'. Nightingale argues (2004) that this kind of culminating vision represents the basis of what we understand by theorizing in the West; in fact, originally, the word *theoria* was used in ancient Greece to refer either to the activity of an audience watching a spectacle or the spectacle gazed at. There are indeed many examples from the history of music theory, for example, that confirm the model. Schenker, for instance, has famously declared that he did not invent the *Urfinie* but was given a vision of it<sup>18</sup>. Similarly, nineteenth-century music theorist Fétis recounted, at the beginning of his *Traité* (1849), how the nature of the tonal system was revealed to him in a flash of intellectual synthesis while sitting under a tree in the woods.

The Platonic model for acquiring knowledge does not fit what happens when performance magic takes place during a live event: learning through live musical performance is rather similar to what Tekippe has called 'primordial knowing' (1996), which can be modeled on mystical experiences of becoming-one-with or,

perhaps, rites of passage. The metaphor of ‘alchemy’ aptly describes this kind of experience without necessarily invoking any mystical dimensions. As in alchemy, during a live performance, the performer at his or her best turns the ordinary into something highly valued, and in the process gets transformed himself/herself. The experience has the peculiar quality of triggering in the performers and audiences alike a powerful affective way of knowing: while in conceptual knowing, the subject beholds the object of knowledge in a clear and distinct manner (*à la* Descartes), in primordial knowing, the passing of the threshold from not-knowing to knowing takes place as the subject merges with the object so as to grasp it from within, as it were. And in this sense, primordial knowing moves beyond traditional concepts of knowledge and understanding associated with research, into *wisdom*, which involves acting with just the right aesthetic decisions at the right moment during the live event so as to produce performance magic.

The Alchemy project also provides data corroborated with ample anecdotal evidence that the conditions of emergence of qualitative transformations are bound up with the social dimension of the live performance. For many performers, going on stage is a highly charged positive – and at times euphoric – affective experience; the famous tenor Enrico Caruso, for example, is known to have said that ‘he could achieve the correct mental state in order to sing his top Cs convincingly when he was in the presence of an audience’ (Davidson, 1997: 215). There is, in this sense, a distinct social ontology to live performance. Although the performer’s artistic skills and capabilities are the most important determining factors for the emergence of high-quality performances, the magic does not emerge only out of the performer’s own resources but also requires audience presence as in a live context. This is why many performers feel that the recording studio, while offering a safer environment for performance making, also takes away the magic of the live event that thrives on the inspiration the artist draws from his or her listening audience on stage<sup>19</sup>. Another aspect of the live event that is seldom mentioned is the impact of the performance space on the performance making both acoustically and socially: according to the findings of the Alchemy project, mechanisms of knowledge production – in the sense of practising alchemy and magic on stage – start functioning if and when performers succeed in making subtle expressive adjustments that could not have been rehearsed in order to interact with the performance space so as to ‘draw’ the audience into their music making.

## CONCLUSION

Because a live musical performance resists translation into a conceptual object of understanding in the absence of a tangible phenomenon that could represent it, a necessary starting point for any research, whether traditional or practice-based, on live performance is a recorded documentation of it, which nevertheless is not

sufficient to provide a full picture of the vanished event. Given that the artistic features of live performance making are so closely related to social factors, it becomes imperative to represent and disseminate the findings of this kind of practice-based research project on live music making by multimodal means in that it is not possible to document the complex social and cultural web that surrounds the event monomodally, through, say, only an audio–visual recording of the performance, or only a written reflective account of it. In this endeavour, the performer–researcher would take the value of the live event for him or her as a starting point and thereby move beyond the interests of merely gaining new knowledge and understanding into an area where artistic engagement with and commitment to the ‘object’ of research, namely the live performance, necessitates an interested and subjectively valorized positioning of him- or herself as a researcher. One of the greatest challenges for contemporary Performance Studies is to recognize and theorize the situated expert knowledge live musical performance generates and to honour it as the epistemological foundation of the discipline. As Rink has commented, ‘Performance Studies as a discipline within Musicology will continue to thrive only to the extent that performers – as artists and artist-researchers – come to assume greater priority within the discipline’ (2004: 41) and are recognized as authorities in the generation of knowledge about musical performances. Towards this aim, the ever-expanding potentials for multimodal discourses offer unprecedented opportunities to expert performers, who wish to undertake practice-based research projects with the aim of producing dissertations and theses in academic contexts. I believe it is through such projects that it will be possible to put to rest the remnants of the textual ideology in musical performance research, by putting forward the insider’s view through multimodal means, where the performer’s artistry and scholarship meet in aural-discursive, multimodal discourses that would be listened to and read both as artistic practice and research.

## NOTES

1. The first commercially available cylinder recording was produced in the USA in 1890 (Day, 2000: 2).
2. Schenker’s (1868–1935) musical analyses are an exception in that while also containing textual commentaries, they are essentially presented in the form of graphs that employ traditional music notational signs.
3. Various scholars probed the nature of recordings as musicological documents. Trezise, for example, questions the validity of assuming familiarity with the performances of a musician only through their recordings (Trezise, 2008), while Fabian convincingly argues that recordings in the classical genre can indeed be regarded as documents of interpretative styles of performers (Fabian, 2008). Rumsey draws attention to the fact that in the context of recorded music ‘fidelity to an original’ is a problematic concept (Rumsey, 2008).
4. The term ‘text-based ideology’ refers to the received set of musicological values that regards the essence of musical meaning to reside in the notated musical score, which is conceived as functioning similarly to a literary text. According to such an ideology, understanding music is a textual, i.e. score-based endeavour. However, while it implies a monomodal conception of music, a textual ideology does not necessarily result in a monomodal presentation and dissemination of musicological knowledge in the form of written texts: it is perfectly possible for a text-based ideology in the sense defined above to employ multimodal means to present and disseminate knowledge. In reality, music notation, which has been part of written music theoretical discourse for centuries, is a system of graphic signs

and in this sense always introduces an element of multimodality to the written text. The term 'textual ideology', therefore, refers to a conceptual approach.

5. For a review of the history of empirical studies of musical performance, see Gabriellson (1999).
6. Levinson writes that there is a:

well-entrenched process/product ambiguity in regard to the concept of a performance. On the one hand, there is the activity of producing sounds for an audience, on the other hand, there are the sounds that are produced. (1987: 378)

As I have argued elsewhere, although:

sound-recording technology is often regarded as having broken the singular, causal ties between the performer and her performance in the listener's experience by abstracting the acoustical features of a performance from its original place, time and social context of occurrence, as the direct and immediate consequence of the performer's actions, a performance – whether live or recorded – is always indissolubly linked to its maker. Research in sound perception and cognition provides substantial evidence that images of sound and sound production are closely linked such that actions of the performers that produce the musical sounds are represented as part of the musical sounds themselves in the listener's experience. (Doğantan-Dack, 2008: 298)

7. For a brief history of the 'institutional validation of practice as research' see PARIP website at URL: [http://www.bris.ac.uk/parip/t\\_ap.htm](http://www.bris.ac.uk/parip/t_ap.htm). PARIP (Practice as Research in Performance) was a five-year project directed by Kershaw and the Department of Drama: Theatre, Film, Television at the University of Bristol and funded by the AHRC (Arts and Humanities Research Council of the UK).

8. PRIMO is developed and managed by the Institute of Musical Research, University of London, with technical support from the University of London Computer Centre and from JISC (Joint Information Systems Committee). For more information on PRIMO visit URL: <http://primo.sas.ac.uk>

9. In a comprehensive review of a conference organised by NAMHE (National Association for Music in Higher Education) in 2004 and titled 'Practice as Research: Towards Consensus', Bayley points out that:

there are different roles in which performance can function but evidence from the inappropriate submissions in RAE [Research Assessment Exercise] 2001, commented upon in the overview report, suggested that not everyone knew where to draw the line between performance as research and performance as professional practice. (NAMHE 2004: 8)

10. I make this assertion in reference to Western classical music performance practice since in the performance tradition of other musical genres such as jazz, the improvisatory element introduces components that are similar to composing music and thereby changes the creative relationship of the performer to the unfolding music and his or her reflective stance.

11. 'To challenge the disciplinary status quo, which is deeply rooted in this tradition giving priority to discursive knowledge, and to reclaim for performance studies the long-neglected epistemological primacy of the act of music making require using the tools of that very tradition, namely arguing and convincing. It will indeed take much discoursing to establish the fact that the possibility of any musicological knowledge about music is contingent upon the existence of a musical way of knowing that originates in music making' (Doğantan-Dack, 2008: 302).

12. See 'About PRIMO' in <http://primo.sas.ac.uk>. Approaching this issue from a pragmatic perspective, Ritterman argues that evidently:

if one chooses to present one's practice-based research without supporting documentation – leaving the work to 'speak for itself' – this puts a high premium on the 'musical ears' and range of experience of assessors. Few musicians can rely on having their work publicly reviewed in ways that provide informed and perceptive comment on its distinctive or original aspects. So it seems only reasonable that artists submitting examples of their practice in any competitive funding exercise would wish to take the precaution of making the case for themselves. (2006)

13. The AHRC (Arts and Humanities Research Council) funds postgraduate training and research in the arts and humanities, from archaeology and English literature to design and dance. The quality and range of research supported not only provides social and cultural benefits but also contributes to the economic success of the UK. For further information on the AHRC, visit URL: <http://www.ahrc.ac.uk>

14. The project website, designed by Boyd Davis (Head of the Lansdown Centre for Electronic Arts, and Reader in Interactive Media, Middlesex University) and maintained by Middlesex University can be visited at URL: <http://wwwmdx.ac.uk/alchemy>

15. For more information on the Marmara Piano Trio, visit URL: <http://www.marmaratrio.com>

16. For example: (i) Gruson L (1988) Rehearsal skill and musical competence: does practice make perfect? In: J Sloboda (ed.) *Generative Processes in Music: The Psychology of Performance, Improvisation and Composition*. Oxford: Clarendon Press, pp. 91–112; (ii) Hallam S (1995) Professional musicians' approaches to the learning and interpretation of music. *Psychology of Music* 23: 111–128; (iii) Weeks P (1996) A rehearsal of a Beethoven passage: an analysis of correction talk. *Research on Language and Social Interaction* 29/3: 247–290; (iv) Davidson J and King EC (2004) Strategies for ensemble practice. In: A Williamon (ed.) *Musical Excellence: Strategies and Techniques to Enhance Performance*. Oxford: Oxford University Press, pp. 105–122; (v) Ginsborg J, Chaffin R and Nicholson G (2006) Shared performance cues in singing and conducting: a content analysis of talk during practice. *Psychology of Music* 34/2: 167–192.

17. Some of the ideas in this and the following paragraph were first presented in a conference paper titled 'Practice and Theory: Ways of Knowing Music', 8th Conference on Systems Research in the Arts, Baden-Baden, Germany, August 2007.

18. In Schenkerian music analysis, Urlinie, or the fundamental line, refers to the particular melodic pattern that takes place at the hierarchical background of every tonal piece of music, holding the surface elaborations of it together.

19. Canadian pianist Glenn Gould (1932–1982) was an exception in this connection as he preferred practising his art in the recording studio exclusively after retiring from the stage permanently at the age of 32.

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