Discantare Super Planum Cantum : new approaches to vocal polyphonic improvisation 1300-1470

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1 INTRODUCTION

This thesis is the result of some five years of research into historical improvised polyphony, particularly of the late medieval period (ca. 1300-1500). As it was undertaken within the framework of an artistic research PhD, it is largely practical in aim, and I will describe my experiences with polyphony as a teacher and an improviser, as well as a researcher and analyst. The paradoxes inherent in such an approach may seem obvious: what can actually be known about non-written musical traditions that died out long before the advent of recording technology; and how can one gain 'practical experience' with historical phenomena, especially such transient ones as musical improvisation?

I will argue that we *can* actually learn enough about these extinct musical idioms to be able to improvise in them, be it in our own, limited ways. The written remains of late-medieval musical culture, the treatises and compositions left to us, are often surprisingly rich in information on this topic. As such, the reader will note that substantial parts of this thesis will be devoted to what one could consider purely music-historical or -analytical matters: close reading of historical treatises and analysis of compositions. In these sections, I will use the traditional methods available to music historians, and also seek to contribute to the scholarly debate. This work is, however, also practice-oriented, and illuminates aspects of historical materials that have inspired the development of my practical experiments with improvised polyphony. As a result of these scholarly inquiries, I will formulate certain strategies or techniques to extemporise two- or three-voice polyphony. Most of these—I claim—anyone with a good ear and a reasonable command of their voice can use to produce one's own 'instant polyphony'.

I hope to show in this dissertation how we may re-utilise elements of the late-medieval teaching of polyphony, not just to gain an analytical understanding of this music, but an experiential one as well. Such experiences are obviously important for musicians performing late-medieval music, because they will help them to contextualise that repertoire. For music students, improvising polyphony is an effective way to develop musicianship skills, such as playing, singing and thinking polyphonically, intonation, and even sight-reading. I would

argue that experience in improvising polyphony is beneficial even for those dealing with the late-medieval repertoire in a theoretical way, such as historical musicologists and music theorists. As will be shown in Chapter 2, medieval musicians primarily conceived of polyphony not through notation but through sound and singing. Any informed analysis of medieval music, therefore, needs to take this 'primacy of sounding' into account. Analysts also will profit from understanding historical improvisational techniques in order to distinguish the specific 'authorial' features of historical compositions from those elements that simply are the *loci communes* of a style.

In this introductory chapter I will first give a brief description of the state of research into improvised polyphony, both among scholars (music historians and theorists) and practitioners (teachers and performers of early music). Second, I will discuss what I see as the relevance of my project and elucidate what questions I aim to answer specifically. Third, I will expose my methodology, focussing on its more 'unorthodox' practical and experimental aspects. I will attempt to answer the question what status could be given to such practical experiences in the scholarly debate, and what one can actually 're-enact' by improvising in a historical style.

1.1 Improvised Polyphony in Practice and Scholarship

A comprehensive survey of current scholarship on extempore polyphony is given in Chapter 2, for which reason—at present—I will provide only a short overview of its development. Occasional references to practices of polyphonic improvisation were already made by nineteenth-century music historians, such as François-Joseph Fétis (1784-1871) and Hugo Riemann (1849-1919).[1] The first serious attempt at describing these phenomena, however, was made by the Hungarian musicologist and music educator Ernst Ferand in his monumental work *Die Improvisation in der Musik* (Zürich, 1938).[2] Ferand (1887-1972) gave a follow-up on this book with a number of publications on historical improvisation, particularly of the Renaissance and early Baroque periods, among which his ever popular anthology *Improvisation in Nine Centuries of Western Music* (Cologne, 1961). Until the 1980s, however, these topics seem to have been only sparsely explored by other scholars of early music.[3]

Over the last thirty years, the amount of scholarship on the subject has literally exploded. Scholars have taken on extempore polyphony from a variety of angles: Historical musicologists, such as Rob Wegman and Philippe Canguilhem, have studied archival references, the history of musical establishments, and the schooling of choirboys, to draw a picture of these practices within their socio-cultural environment.[4] Scholars of music theory, such as Klaus-Jürgen Sachs and Peter Schubert, have identified contrapuntal techniques—taught by historical authors to improvise—in written compositions, pointing to the continuity between improvisation and composition in the craft of historical musicians.[5] Methods from ethnomusicology have enabled scholars such as Leo Treitler to identify features, like the use of 'patterns' and a

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[1] See Ernst Ferand, *Die Improvisation in der Musik. Eine entwicklungsgeschichtliche und psychologische Untersuchung* (Zürich: Rhein-Verlag, 1938), p. 127, n. 2, 6 and 7.
[2] Ferand, rather tellingly, had a career combining several 'practical' activities—such as music education, criticism, production and performance—with scholarship. See Ramona H. Matthews, 'Ferand, Ernest T.', *Grove Music Online* [accessed 16 August 2016].
[3] A positive re-appraisal of Ferands work may be seen in Philippe Canguilhem, 'Le Projet FABRICA: Oralité et écriture dans les pratiques polyphoniques du chant ecclésiastique (xvie – xxe siècles)', *Journal of the Alamire Foundation*, 2 (2010), pp. 272–281 (p. 272); Giuseppe Fiorentino, '"Con Ayuda de Nuestro Señor": Teaching Improvised Counterpoint in Sixteenth-Century Spain', in *New Perspectives on Early Music in Spain*, ed. by Tess Knighton and Emilio Ros-Fábregas, Iberian Early Music Studies 1 (Kassel: Edition Reichenberger, 2015), pp. 356–379 (p. 356).
[4] See Sections 2.2.1 and 2.2.2.
[5] See Chapters 3 and 4.

'framework', as structuring agents, which pre-modern musical traditions have in common with non-Western ones.[6] Finally, research on medieval and Ancient mnemotechnics, by literary historian Mary Carruthers in particular, has enabled Anna Maria Busse-Berger to explain certain features of medieval musical treatises that had not previously been well understood.[7] Perspectives from both ethnomusicology and 'art of memory' scholarship, moreover, have helped to resolve the false, modern opposition between memorisation and improvisation, as purely 'reproductive' and 'spontaneous' musical acts. In fact, as scholars of oral poetry also report, 'oral composition' requires a well-stocked memory, and performers of oral musical and poetic traditions are able to produce coherent results, consistent between different performances.[8]

It seems that performers of early music have been somewhat quicker to catch onto the improvisatory aspect of medieval and Renaissance music. The crucial and pioneering role of performers in the investigation of improvised polyphony was also recognised by Philippe Canguilhem, who stated that 'musicology has mostly ignored the numerous areas of research opened [by Ferand], while for some years early music groups such as Capilla Flamenca, Le Chant sur le Livre and the ensemble Obsidienne have gone directly to the sources to attempt to revive these practices, without their experiences being prepared, taken on, or accompanied by academic research.'[9] Among the groups mentioned by Canguilhem, Le Chant sur le Livre in particular has been at the avant-garde of the revival of improvised polyphony in Europe.[10] In addition to these, polyphonic

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[6] See Section 2.1.2 and 2.1.3.

[7] See Section 2.2.2. Mary Carruthers, *The Book of Memory: A Study of Memory in Medieval Culture*, Cambridge Studies in Medieval Literature (Cambridge: Cambridge University Press, 2008).

[8] See for instance John D. Niles, *Homo Narrans: The Poetics and Anthropology of Oral Literature* (University of Pennsylvania Press, 1999), p. 94.

[9] 'En effet, depuis la parution en 1956 de l'article fondamental d'Ernst Ferand, la musicologie dans sa grande majorité a continué d'ignorer les nombreuses pistes de recherches qu'il ouvrait, tandis que depuis quelques années, des groupes de musique ancienne tels que la Capilla Flamenca, l'ensemble Le Chant sur le Livre, ou l'ensemble Obsidienne sont allés directement aux sources pour tenter de faire revivre ces pratiques sans que leurs expériences soient préparées, relayées ou accompagnées par la recherche académique.' Canguilhem, 'Le Projet FABRICA: Oralité et écriture dans les pratiques polyphoniques du chant ecclésiastique (xvie – xxe siècles)', p 272. Translation by the author.

[10] Le Chant sur le Livre does not have a website, but it can be heard performing here: <https://www.youtube.com/watch?v=d86iB7LVM98>, <https://www.youtube.com/watch?v=WZnBKEnS8UI>, and <https://www.youtube.com/watch?v=2xEV94dBjqI>. Capilla Flamenca was dissolved in 2014, with the passing of its artistic director, Dirk Snellings, see <https://en.wikipedia.org/wiki/Capilla_Flamenca>. For the ensemble Obsidienne see <http://www. obsidienne.fr/> [accessed 13 August 2016].

improvisations have been shown in performances and demonstrations by the ensembles Coclico (dir. Barnabé Janin), Currentes (dir. Jostein Gundersen), Ciaramella (Adam Gilbert e.a.), and The Scroll Ensemble (dir. James Hewitt).[11] Others, such as the Huelgas Ensemble (dir. Paul van Nevel), have shaped programmes around the phenomenon of improvised polyphony, but without actually improvising in them.[12] Festivals dedicated to improvisation in early music, including improvised polyphony, are the Festival de Musique Improvisée de Lausanne and the Leipziger Improvisationsfestival für Alte Musik.[13]

Besides performers, an important role in the modern 'revival' of historical improvisation has been played by music theory instructors at North American universities and European conservatoires, who—like Ferand—came to realise the pedagogical utility of these techniques.[14] Important contributions to our understanding of improvised counterpoint in the Renaissance, for instance, have been made by pedagogues such as Jean-Yves Haymoz (Haute École de Musique de Genève), Peter Schubert (McGill University, Montreal), Markus Jans (Schola Cantorum Basiliensis) and Ross Duffin (Case Western Reserve University, Cleveland). Most of these individuals are academics as well, and therefore eminently suited to mediate between the worlds of scholarship and pedagogical and musical practice. Unfortunately, the work of academically unaffiliated musicians, who may never publicise their experiences except through teaching and performance, is a lot harder to indentify. I will sometimes make reference to the 'unpublished' work of musicians when I know it from personal experience. It would, however, go beyond the scope of this thesis to provide a comprehensive history or ethnography of the modern revival of improvised polyphony.

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[11] See <http://coclico.oboka.org>, <http://www.currentes.com>, <http://www.naxos.com/person/ciaramella/33121.htm>, and <http://www.thescrollensemble.com> [accessed 16 August 2016].

[12] A recording of a concert of the Huelgas Ensemble dedicated to 'contrappunto alla mente' at the Utrecht Early Music Festival 2005 can be accessed at <http://archief.wereldomroep.nl/english/radioshow/franco-flemish-polyphony> [accessed 16 August 2016].

[13] See <http://www.fmil.org>, and <http://www.improfestival-leipzig.de> [accessed 16 August 2016].

[14] On Ferand's pedagogical motivations, see also Chapter 5.

1.2 Research Goals, Questions and Hypotheses

The aims of this research are first and foremost practical ones, concerned with teaching and improvising polyphony in the here and now, albeit in a historically informed way. My activities as a teacher focus mainly on repertoires before 1600, and, as such, I am primarily interested in techniques from this period. As will be shown in Chapter 5, practical approaches to polyphonic improvisation already exist for many repertoires of the pre-modern era: the organum of the Notre Dame school, fifteenth-century *cantare super librum*, and the 'contrappunto alla mente' of the sixteenth century. To develop a practice or pedagogy of improvisation in these styles, in other words, one does not have to start from scratch, but can build on already existing practices and ideas. However, this is not the case for the polyphony of the early fifteenth, and especially the fourteenth century, for which no such approach exists to date. One of the goals of my research, therefore, is to formulate strategies and techniques to extemporise polyphony in fourteenth- and early fifteenth-century styles, and to be able to teach this repertoire in an interactive, aural and improvisation-based way.

Over the course of the research process, these goals have crystallised into the following research questions:

1) *What historical information do we possess about the performance of extempore polyphony in the late-medieval period?*

2) *Which polyphonic techniques can I identify in fourteenth-century treatises and compositions that can be used to improvise against a plainchant?*

3) *What can I add to the current understanding of fifteenth-century improvisational techniques?*

4) *How can these and other findings from scholarship and experiments be effectively valorised in musical education?*

Partly in response to these questions, I have formulated the following hypotheses, in the form of short, affirmative statements, reflecting the basic assumptions and attitudes I originally brought to this research. I will return to these statements in my conclusion, to ask whether or not they have been validated by my research and experiences. When dealing with more specific music-analytical or -historical issues, I will clearly indicate which claims I am seeking to test in the chapter itself.

A) *Like a dead language (e.g. Latin), a historical musical idiom can be 'spoken again', as long as there is enough material left to work from.*

B) *In order to learn how to extemporise, it is more useful to study the 'tricks' and colloquialisms of a style than the 'official' rules given by theorists.*

C) *Such* loci communes *must exist for fourteenth- and early fifteenth-century music, as they exist for all other repertoires of the Western canon.*

D) *Practical experiments with improvisation can assist scholarship on historical polyphony to ask the 'right' questions of the sources.*

E) *To truly 'know' a musical idiom means to be able to extemporise in it: Being able to recite Schiller is not the same as speaking German.*

F) *Vocal polyphonic improvisation is useful not only for acquiring stylistic knowledge but also for improving musicianship skills.*

1.3 Methodology

Before outlining my research methodology, I will return, first, to the methodological problems facing a project on historical improvisation that combines historical, music-analytical and experimental approaches. What is the status of the experiment in such research? Can one use it to verify hypotheses based on historical evidence? Do similar approaches already exist, and what is the best way to make such practical experiences part of the discourse? Finally, what am I really 'reconstructing' when I improvise in a historical style? This is essential, because important theoretical objections have been raised by scholars to claims of 'authenticity' for current performance practices of early music in general, and the possibility of reconstructing historical practices of musical improvisation in particular.[15]

1.3.1 Experiential Knowledge and Historical Scholarship

I was surprised to find that experiential knowledge, gained by 'doing it', already plays a role in academic scholarship on historical polyphony. In publications on improvisation, musicologists Peter Schubert and Timothy McGee explicitly refer to practical experiments with specific polyphonic techniques.[16] In both cases, an important part of the argument rests on being able to demonstrate these techniques in practice.[17] The same goes for John Milsom's experiments with 'forensic analysis', which involve the making of replicas of historical compositions, to see how these could have been made, and whether this would

[15] See for instance Richard Taruskin, 'The Authenticity Movement Can Become a Positivistic Purgatory, Literalistic and Dehumanizing', *Early Music*, 12 (1984), pp. 3–12. Thoughts on the (im)possibility of reconstructing past improvisatory practices can be found in Max Haas, 'Schwierigkeiten mit dem Begriff "Improvisation" im Mittelalter', *Basler Jahrbuch für historische Musikpraxis*, 31 (2007), pp. 13–24; Andreas Haug, ''Improvisation und Mittelalterliche Musik: 1983 bis 2008', *Basler Jahrbuch für historische Musikpraxis*, 31 (2007), pp. 25–33. For an in-depth discussion of the issue of modern performance of medieval music, its historical background, and interactions with scholarship see Daniel Leech-Wilkinson, *The Modern Invention of Medieval Music: Scholarship, Ideology, Performance* (Cambridge: Cambridge University Press, 2002).

[16] See Peter Schubert, 'From Improvisation to Composition Three 16th Century Case Studies', in *Improvising Early Music*, ed. by Dirk Moelants, Collected Writings of the Orpheus Institute (Leuven: Leuven University Press, 2014), pp. 93–130; Timothy J. McGee, 'Cantare All' Improviso. Improvising on Poetry in Late-Medieval Italy', in *Improvisation in the Arts of the Middle Ages and Renaissance* (Kalamazoo: Medieval Institute Publications, Western Michigan University, 2013), pp. 31–70 (pp. 61–63 and 70, n. 20).

[17] Peter Schubert, for instance, provides transcriptions of improvisations by Catherine Motuz, Steven Vande Moortele and himself, on p. 103 and 113-114.

have been 'difficult' for historical composers.[18] It turns out that even the most methodologically rigorous scholars of early music will occasionally base argumentations on their own experiences recreating past practices. Margaret Bent, for instance, has argued that in order to supply editorial accidentals in editions of fifteenth-century music, one needs experience in singing from the original mensural notation, as she evidently has herself.[19] Historians of music are also not alone in doing so; in the introduction to the second edition of *The Book of Memory* (2008), historian of literature Mary Carruthers, for instance, describes practising a medieval mnemonic technique while commuting between work and home on the Chicago elevated train.[20]

There is little doubt, however, that prevailing methodological norms in the humanities do not encourage scholars to shape their research around practical experiences. This is at least partly the raison-d'être for a doctoral programme like docARTES, which gives musicians the opportunity to develop research in and through their own artistic practice in a way that would not be possible in a department of musicology. I feel, however, that it is important—especially in the field of early music—for artistic researchers and musicologists not to lose sight of what is happening on the other side of the interdisciplinary divide. This is particularly necessary because historical musicologists often do argue practical points—occasionally even from personal experience—and many early music performers do actually have a historical axe or two to grind. How, then, can I make my findings from practical experience part of the discourse, not only among my fellow musicians, but in a scholarly context as well?

In an essay entitled 'Performance Practice, Experimental Archaeology, and the Problem of the Respectability of Results' (2003), musicologist Randall

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[18] See John Milsom, 'Hard Composing; Hard Performing; Hard Listening', *Early Music*, 41.1 (2013), pp. 108–112.

[19] See Margaret Bent, *Counterpoint, Composition, and Musica Ficta* (New York, London: Routledge, 2002), pp. 201–202. '(...) the answers to many of these questions follow naturally from the experience of reading and singing from original notation (...) We need at least to learn (by doing it) to *simulate* that experience, so that in using modern scores we can make allowance for their inherent distortions (...)' I can testify from personal experience, in a workshop taught by Bent in 2011, that she is an outstanding sight-reader of early mensural notation.

[20] See Carruthers, pp. xiii–xiv. 'I spent several months, while commuting to work in Chicago on the elevated train, memorizing psalms with the method Hugh [of St. Victor] described (...) Many people have asked me over the years if memory arts really work. The answer to that is yes – if you know how to use them.' It appears that this experiment played an important role in shaping one of the central theses of Carruther's book, namely that the utility of such techniques lies in the 'retrieval' rather than in the 'storing' of memories.

Rosenfeld has argued for adopting methods from experimental archaeology in experiments with historical improvisation. Experimental archaeology is a sub-discipline in which archaeologists devise practical experiments to test the validity of assumptions made about past human behaviour and artefacts.[21] Classic examples of such experiments include replicating tools and vehicles and testing the efficiency of different ways of using them. The benefit of adopting this method, according to Rosenfeld, is that it 'offers a way to use critically controlled performances as evidence in the scholarly literature—evidence supplemental to that of more traditional sources, evidence which can be used when there is nothing from more traditional sources.'[22] Many musicians—myself included—may be quick to object to such an exclusively utilitarian and ancillary conception of a part of their musical practice. It may be worthwhile, however, to reflect on the methodological principles laid out by Rosenfeld, to see whether they can indeed be helpful for practice-based research on historical improvisation.

The first of these guidelines is that one must only use 'original materials' which would have been available to historical practitioners. [23] However, what exactly is the 'material' of music? Being trained as a composer, I am used to thinking of elements like chords, melodies and rhythms as 'musical materials', and one can definitely attempt to use only those 'original' to the historical style one improvises in. However, are these not the 'techniques' one uses to improvise, with one's instrument or voice as 'material'? Or, in my own case, should I regard the *cantus prius factus* as the 'basic material' of my improvisation? In both cases problems arise: if one may use only period instruments for exploring methods of historical improvisation, what about vocal music? Also, does John Milsom, for instance, invalidate his demonstration of a historical method of composition, by using *Happy Birthday* as a cantus firmus?[24] I would argue that non-period instruments and tunes can actually serve as well as 'original' ones, depending on what one seeks to demonstrate. The usefulness of this criterion, therefore, depends entirely on what one defines as 'material' in the context of the particular

[21] See for instance Mark G. Plew, 'Experimental Archaeology', in *The Oxford Compendium to Archaeology*, ed. by Brian. M. Fagan and Charlotte Beck (Oxford, New York, 1996), pp. 564–565.
[22] Randall A. Rosenfeld, 'Performance Practice, Experimental Archaeology, and the Problem of the Respectability of Results', in *Improvisation in the Arts of the Middle Ages and Renaissance*, ed. by Timothy J. McGee (Kalamazoo: Medieval Institute Publications, Western Michigan University, 2003), pp. 71–79 (p. 84).
[23] These are listed in ibid., pp. 81-82.
[24] See Milsom, p. 109.

experiment. In my own experiments, I will employ mostly 'original' chant melodies, as well as period methods of improvisation. Other aspects of these performances, like vocal technique or phrasing, are immaterial to what I want to demonstrate, and I claim no 'authenticity' in these respects.

The second principle mentioned by Rosenfeld is that the participants should not be 'inexpert, incompetent or inexperienced' with historical techniques. The only way to achieve this, in my experience, is by lengthy collaboration between researchers and their collaborators. This will not only blur the line between experiment and preparation, but also between 'experimenter' and 'experimental subject', in a way that does not seem consistent with the 'critically controlled' experimental process proposed by Rosenfeld.[25] It seems to me, therefore, that the criterion of expertise and experience should also be extended to 'experimenters', who will not be able to properly guide, prepare or assess their experiments without being a competent improvisers themselves.

Among the more useful principles cited is the idea that practitioners should be informed about and sympathetic to the aim of the experiment. It may be very difficult indeed, for instance, to obtain good results with musicians who do not see the point of improvising in a certain style, or who do not believe a positive outcome can be achieved. Helpful, also, is the idea that parameters and limits to the experiment should be well defined; I have found it useful, for instance, to state precisely what genre or style we are seeking to imitate. This has the benefit of establishing clear stylistic norms, determining which type of progressions and ornaments are 'in' and which ones are 'out', for instance. Furthermore, I am of the opinion that this is a way for me to assess the 'success' or 'failure' of such an experiment, a point to which I will return shortly.

In sum, I agree with Rosenfeld that experimental archaeology can be a useful analogy for the role of experiments with performance practice in music studies. However, there is an essential difference between the artefacts and practices with which experimental archaeology is concerned, and a complex, artistic operation such as musical performance; this methodology can thus not simply be adopted wholesale for such experiments. A vital point to consider is that not only the physique, but also the life-style, culture and mental processes of

[25] For my approach towards this process, see Section 5.2.1.

modern subjects differ significantly from those of their historical counterparts.[26] Such differences may not play a decisive role in utilitarian, object-bound operations, such as operating stone tools or baking bread, but they certainly do in those involving higher mental processes as well as socio-cultural and aesthetic attitudes.

What, then, am I really able to demonstrate in experiments with medieval improvisatory techniques? The most credible and reliable way to proceed, it seems to me, is to transcribe the results of an improvisation and compare it with historical compositions, as I will do in Chapter 3. Obviously, this means limiting the comparison to 'musical texts', considering only those parameters that survive in the notation of the historic examples: rhythm, (relative) pitch, and—secondarily—counterpoint. I do not claim, in other words, that my experiments lead to 'sound authentic' results—to borrow a term from philosopher Peter Kivy—because the sonic aspect of medieval music is lost and ultimately inaccessible to us.[27] What I can however seek to demonstrate is that extemporisations using certain techniques produce musical texts similar to repertoire examples. This type of comparison is justifiable, because, as we will see in Chapter 2, historical authors do not sharply divide between composition and improvisation, and it can be assumed the same techniques would have been used in both. My experiments are also reproducible because other practitioners can use the same techniques and compare their results with mine. Even readers who do not have the time to replicate my experiments may readily understand how a musical example was obtained with a certain technique and judge for themselves whether my inferences seem credible or not.

[26] This is a significant consideration in connection with certain aspects of medieval musical pedagogy, such as the comprehensive memorisation of texts and tables, which are completely alien to us (see Section 2.2.2).

[27] Peter Kivy, *Authenticities: Philosophical Reflections on Musical Performance* (Ithaca, London: Cornell University Press, 1995), pp. 47–79.This may appear to be less of a problem for instrumental music, but here too there are uncertainties to consider, particularly in the areas of instrument construction and playing technique; and to my mind an even bigger problem with reconstructing medieval instrumental improvisational practices is the scarcity of sources of instrumental music dating from before the fifteenth century. On the issue of singing versus playing in improvisation see Section 5.3.2.

1.3.2 Methodological Approach

After these considerations, I will now outline the methodology used in this project. The three main components of my research are, first, the analysis of historical materials (compositions and treatise texts); second, practical experiments based on observations from these materials; and, third, the valorisation of these practices, mainly in music education. Needless to say, these approaches are connected in different, multidirectional ways. For example, I can 'put to the test' a hypothesis based on historical materials in improvisations, but results from such experiments may also change the questions I ask of these documents, and lead to the modification of my initial hypothesis. These different elements, as well as their interactions, are shown schematically in Figure 1.1.

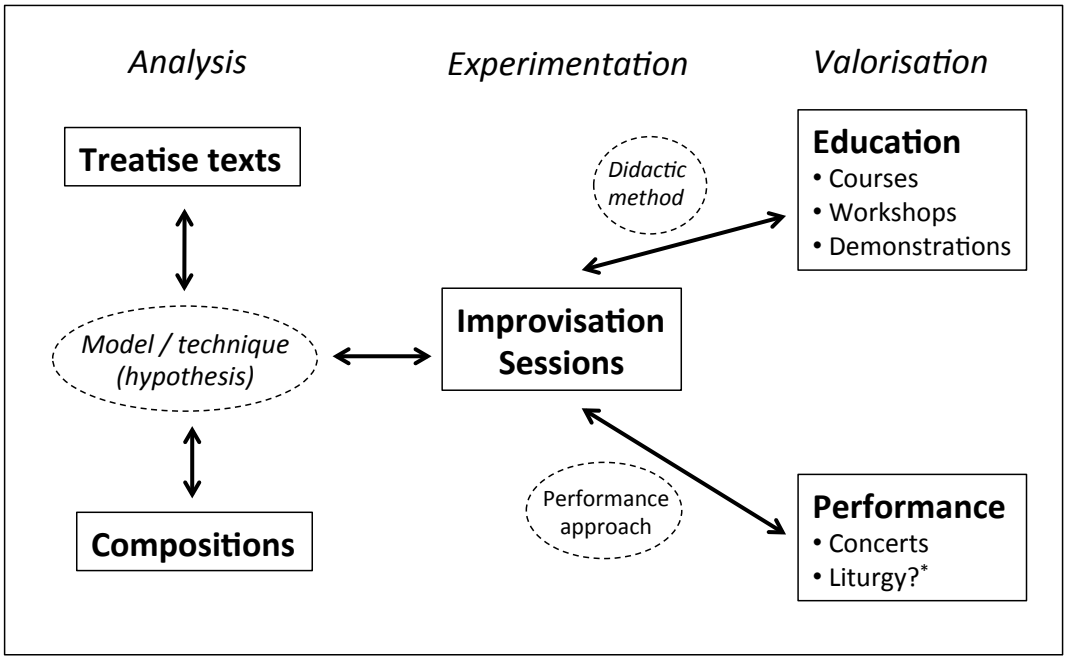

Figure 1.1 Diagram of research methodology.

The reader may observe how, through different stages of 'distillation', an approach based on observations from historical sources may be used to develop new didactic methods and performance approaches, eventually to be used in the classroom or a performance venue. Inversely, practical insights from

* On the issue of performing in the liturgy see note 497.

experimentation and teaching may be used to ask new, perhaps more relevant, questions of the historical materials under investigation. The combination of analytical, practical and pedagogical elements will vary from chapter to chapter: Chapter 2, for instance, is essentially a literature review, and here I will draw on my experiential knowledge only to compare it with the narratives music historians have proposed about improvised polyphony; in contrast, Chapter 5, which deals with the pedagogical application of polyphonic improvisation, has an entirely practical aim, and will not involve much discussion of historical or music-analytical matters. The chapters on fourteenth- and fifteenth-century polyphonic techniques, Chapters 3 and 4, will combine analytic-historical with experimental and, to a lesser degree, pedagogical approaches.

In closing, I would like to state that all my practical experiments have been conducted vocally. This is not only because I am a vocalist myself, but also because I will be dealing almost exclusively with sacred, chant-based polyphony, which in my opinion benefits most from a cappella performance. Liturgical vocal music is also the repertoire most closely related to descriptions of polyphony in late-medieval treatises, that—as we will see—are concerned chiefly with teaching to sing or compose polyphony against a chant melody. Because this thesis will not focus on the embellishment of notated or memorised melodies, I will employ the term 'improvisation' only for the extempore singing of a part in polyphony, which may be florid or simple. Finally, the fact that my experiments are based directly on observations from historical materials means that I will not address certain practices that may be familiar to modern audiences from concerts and recordings, such as the 'bourdons' routinely used by early music groups in performances of chant, but which have no clear basis in the sources from the late medieval period.[28]

[28] This kind of performance – which I personally find rather beautiful and mesmerising – can often be heard, for instance, in the recordings of the Ensemble Organum (dir. Marcel Pérès). It involves the singing of chant with a (moving) drone, presumably inspired by the 'ison' (ισοκράτημα) in Byzantine chant. As noted by Luca Ricossa, however, putting a drone under a chant is exactly the opposite of what happens in *organum purum*, where notes of the chant itself are sustained. See Luca Ricossa, Organum', in *Guide de la musique du Moyen Âge*, ed. by Françoise Ferrand (Paris: Fayard, 1999), p. 230.