

Performing Palestrina

From historical evidence to twenty-first century performance

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Abstract

This study examines the historical evidence of how the sacred vocal polyphony of Giovanni Pierluigi da Palestrina was performed during his years in Rome, from 1551 to 1594. It focuses primarily on gathering evidence from performance practice literature and presenting the prevailing views of scholars on the different aspects of performing the sacred vocal polyphony in the second half of the sixteenth century. The main purpose of the study is to offer the modern performer ideas to enrich performances today of Palestrina's polyphonic music.

The study sets out to describe the performances and performance practices of late sixteenth-century Rome by first placing Palestrina and the institutions he worked in into historical, political, socio-economic and ecclesiastical contexts. Thereafter, individual aspects of performance practice are discussed in depth. Most of these aspects, such as the size and voice distribution of the choirs, the use of instruments or the performing pitch, are generic to performance practice studies, but this study also features other aspects that play a less visible role. These include the manner of singing plainchant, the significance of the original notation, the transposition implied by the high clefs and *musica ficta*. The principal source of information in this study is the performance practice literature of the last 130 years, but primary sources also play a significant role in the discussions. The discussion of each aspect ends with a short summary of the findings and the practical implications for modern performance. Some of the practical implications are quite clear, while other aspects provide the performer with less clear implications, but still offer material for experimentation.

Overall, this study argues for more diversity in performing the vocal polyphony of Palestrina. There is no one single way in which Palestrina's music was performed in his time in Rome, but rather a multiplicity of approaches. This richness of means is not sufficiently reflected in modern performances. The role of historical evidence in this process should be one of emancipation. Historical evidence gives us a looking-glass through which we can better evaluate modern performances at the same time as it gives us ideas for new approaches.

Keywords: Palestrina, performance practice, sacred polyphony, Renaissance music, Rome, notation, tempo, pitch, *chiavette*, *musica ficta*, singing technique, diminution, chant, instruments.

Preface

In some ways, the *raison d'être* of this study is a wild goose chase. In a café discussion on Renaissance music, an acquaintance of mine mentioned that he had heard of a document describing how a papal singer in the sixteenth century had practised trills for a Palestrina mass all morning. Although at that time I probably let the thought pass without further comment, it later began to trouble me. I had been performing Renaissance polyphony, including the music of Palestrina, for a decade with a vocal ensemble and had never come across any trills in the music. I decided to set out on a quest for this document or a reference to it.

Instead of doing the sensible thing, which was to call my source and ask him where he had heard of the document, I set about browsing through literature on the performance practice of Palestrina's sacred music in Rome. On the one hand, I was delighted to find ample archival research, especially on the Papal choir. At the same time, I was surprised how few studies concentrated on performance practice. Yet, the scraps of information pertaining to performance practice seemed to offer new ideas for modern performances quite readily. Some of the information definitely challenged my understanding of the music and how it should be performed. I quickly became aware of the limitations of my knowledge of the music itself, the context in which it was performed and how it was performed in the sixteenth century.

As a practicing musician, I was all too well aware that knowledge in itself would not lead to radical changes in performance practices. After all, I had myself acquired an aural understanding of how Renaissance polyphony was supposed to be performed through recordings and concerts, and not through books. But I did realise that I would not go through the process unscathed: my tastes and routines would be challenged. I accepted this realisation with some trepidation and hoped the changes would not be all too radical.

When I set out on this journey, I was in the same situation as most of my professional colleagues: my understanding of Renaissance polyphony was acquired through the prevailing performance tradition. What we grow used to hearing becomes the norm for performance. Any knowledge of historical practices or context comes from fairly general sources, such as music histories, encyclopaedias and CD booklets. In the end, however, we believe what we hear and find plausible the performances that please us. We replicate the performance tradition we live in.

This tradition, however, is in constant flux. This is easy to observe, simply by comparing recordings from the last 50 years. A performance of Renaissance polyphony from the 1960s seems completely outdated to us. The performances we consider adequate would probably stem from the 1980s at the earliest. I hope this study can be part of the change we are presently undergoing. Artistically, the goal is not reconstruction. I do not believe we can or should even attempt to recreate the performances of Palestrina's lifetime. But I do believe that knowledge of the performance practices of the latter part of the sixteenth century can challenge our understanding of the music and give us ideas for modern performances.

This study is the theoretical basis for my doctoral work. The practical element involves putting the findings of my study into practice with an ensemble of eight to twelve singers, a process that has been on-going simultaneously with this study. At times these elements have brushed against each other, at other times, even collided. Understanding this study does not, however, require acquaintance with the musical content of my doctoral studies.

Above all, this study is written for the performer of Renaissance polyphony and the sacred music of Palestrina. It is ultimately a study in which knowledge, historical facts and the interpretation of these facts are instrumental: the aim is to provide material for singers and choral conductors who work with this music.

And what became of my chase for the mystery document? Nothing. I believe that my source had produced an amalgam of several different documents in his mind. Despite that, I offer him my heartfelt thanks. His misunderstanding led me on a path that otherwise I might have missed completely. Echoes of our encounter can possibly be heard in the discussion on improvisatory embellishment in Chapter Five.

Editorial principles

In writing the names and dates of composers, I have used *The New Grove Dictionary of Music and Musicians* as a guideline. Where Italian or Latin names of places or people have an established form in English, I have used these. Where no other source has been mentioned, the translations from Italian and Latin into English are mine.

Where spans of reigns or employment are concerned, I have used a form where the latter year is abbreviated. Thus, Sixtus IV (1471–84) refers to the duration of

Sixtus' reign, and Tomás Luis de Victoria (1571–73) refers to the span of Victoria's employment. Where a reign or employment period crosses a century, I have added an explanation, for example, Alexander VI (reigned 1492–1503). When the years are written in full, as in Giovanni Pierluigi da Palestrina (ca. 1525–1594), they define the birth and death years of the person. Where the year of birth of a person is known only approximately, I have marked the time frame with a slash. Thus, for example, Constanzo Festa (ca. 1485/90–1545) signifies that Festa was born between 1485 and 1490.

When a note name is written in upper case (for example, C), it refers generally to that note without any reference to a specific octave. If the octave is specified, I have used, for example, C, c, c¹, c², where c¹ is middle-c, c the octave below it, c² the octave above it, and so on.

Palestrina's given name was Giovanni and his family name Pierluigi. During his career he was known by numerous variations on these names, both in the vernacular and the Latin form (i.e. Joannes Petraloysio), as well as by different forms of the town from where his family came (see the discussion in footnote 1 in Chapter Two). In this study, I follow the prevalent modern practice of referring to the composer simply as Palestrina.

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I have had the excellent fortune of having two brilliant people reading and commenting on my texts all throughout the process. Kati Hämäläinen's expertise in performance practice studies and clarity of thought combined with Glenda Dawn

Goss's experience in Renaissance studies and academic writing have been of great help throughout the writing process. However, responsibility for any errors in the study is naturally mine.

Finally, a warm thought for my parents' financial support in the artistic element and the continuous support shown by my wife and daughters.

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I The Musician as Scholar – The Scholar as Musician

Background

Renaissance polyphony has been part of my life for the last 25 years. As a choral singer in my late teens and early twenties, I was fortunate enough to sing in choirs which performed more sixteenth-century music than was usual in similar ensembles. As a singer, I found the music pleasing and relatively effortless to sing: the music's calm, beautifully crafted lines and gentle pulse felt instinctively natural to me. These experiences led to several vocal ensembles established largely for the purpose of singing sixteenth-century sacred polyphony. One of these, Lumen Valo, founded in 1993, is still an important part of my professional life. Ensemble Petraloysio, formed expressly as part of the artistic element of my doctoral studies, has shown great promise and hopefully will play a major role on the early music scene in Finland.

The sacred music of Giovanni Pierluigi da Palestrina (1525/26–1594) has always played a part in the repertoire of my choirs and ensembles. His music is simply too important to be avoided. My relationship to his music is somewhat complicated: I have often been more strongly drawn to the works of Josquin des Prez, Orlande de Lassus or Claudio Monteverdi with their more direct text-music relationships. Yet something in the sleek, perfectly crafted lines and the purity of Palestrina's music kept me interested. Many doctoral students complain of having very little patience with their chosen subjects by the end of the dissertation process, but my affinity with and respect for Palestrina's music has grown steadily during these years. As this iconic figure of music history has gradually been turned into a living being for me, his music has simultaneously become more vibrant, more diverse – more human.

In October of 2009 I spent a month in Rome at the Villa Lante, the Finnish Institute for Classical Studies on the Gianicolo. Chapters 3 and 4 of this study are very much a reflection of that experience. Much of what I had read became more intelligible when tied to the physical spaces of Palestrina's life. Naturally, a great deal of sixteenth-century Rome has disappeared, but much of it has nevertheless been preserved. The Villa Lante itself has stood above the city from the time of the Sack of Rome. That Palestrina's music originated in a specific time and place is hardly an original insight, nor, in the strictest sense, is it even relevant to a study of

performance practice. However, it has been essential to me in coming to an understanding of Palestrina's life, music and the performance of his works.

Approach

I approach Palestrina and his sacred music¹ as well as the historical texts related to this topic from two points of view, which can never be completely separated. On the one hand, I am a scholar trying to keep a cool head and a critical distance, interested in knowledge for its own sake. But I am also a performer. My experience of singing and conducting influences my understanding of the texts I encounter, just as these texts then influence the way I perform the music. The original aim of this study was to find information that could challenge and inspire modern performances. In that sense the information is practical; this is a study for the performers of Palestrina's sacred music. My experience as a performer is present here, even though I have not wanted to let it dominate. I have wanted the roles of scholar and performer to join forces in my study and be as transparent as possible.

This document is only part of my doctoral studies in the Applied study program of the Doctor of Music (DocMus) unit of the Sibelius Academy. The artistic element of my project consisted of two concerts of Palestrina's sacred music with Ensemble Petraloysio, an all-male ensemble of eight to twelve singers, an organist, and, at times several other instrumentalists. The artistic project is not a scholarly presentation of my findings, but an attempt at an artistically credible reading of Palestrina's sacred music. Here, while in the research portion of the study the scholar uses the ears and eyes of a performer, so in the artistic project the performer will naturally be influenced by the scholar within. Yet this dialogue is not central to the thesis. I have chosen to show how the archival data can lead to practical considerations for performance; performers must make their own decisions about these considerations and how or whether they should be put into practice.

¹ Although the title of this work is *Performing Palestrina*, its focus is on Palestrina's sacred music. Palestrina wrote a considerable amount of secular music that will only be mentioned in passing. The performance practice of the secular works, especially the madrigals, would require an approach that would differ in many ways from the one presented in this study.

On writing history

In this course of this study I have attempted to answer the following questions: What do we know or what can we deduce from what we know about Roman performance practices of sacred music in the latter half of the sixteenth century? What practical implications does this information have? My focus is on the Roman musical institutions and the sacred music of Giovanni Pierluigi da Palestrina. In this realm performance practice is an area that has been, if not neglected, at best an auxiliary discipline in the literature on the major Catholic musical institutions in Rome. I assume this is because of the nature of the subject: at least some conjecture is demanded in reconstructing almost any aspect of sixteenth-century performance practice.

Ultimately, what this study attempts to do is to capture sound. Its subject is a physical phenomenon that existed over 500 years ago and then disappeared quite literally into thin air. The subject is an activity that left its imprint in the documentary records of the institutions where it took place. The documentary material is not the subject here, but rather a means to engage in this activity, to recapture those sounds. Because especially the archival material on the Vatican choirs has been meticulously studied by many generations of scholars from the nineteenth century on, my approach will be mainly through secondary sources. I will attempt to gather the often fleeting references to different aspects of performance practice from these studies to form a picture of what performances of sacred polyphony in late sixteenth-century Rome might have sounded like.

Such a task will necessarily raise questions about the writing of history, both in the epistemological and the practical sense, especially as the subject is as ephemeral and the historical evidence as sparse as it is in the case of performances of Palestrina's works. On the most general epistemological and historiological levels, the writings of Paul Ricoeur are especially perceptive and resonate on many levels.

Ricoeur presents his mediatory epistemological view of history in *Memoire, l'histoire, l'oubli* from 2000²: he does not believe historical knowledge can be definitive, but he does believe that there can be historical knowledge which can be called true. Ricoeur's history begins with memory; the shared memory of individuals in turn becomes collective memory. This collective memory is preserved in

² I used the English version *Memory, History, Forgetting*, translated by Kathleen Bailey and David Pellauer (2006).

testimony, common knowledge shared by the group (Dauenhauer 2005), and in archives, which include what Ricoeur calls traces of the past. In his discussion of the thinking of Marc Bloch, Ricoeur states that a trace of the past is “to historical knowledge what direct or instrumental observation is to the natural sciences” (Ricoeur 2006, 170). Ricoeur divides these traces into testimony and vestiges of the past (borrowed from Bloch). These vestiges can be unwritten testimonies, such as coins, funerary objects and architectural remains. These traces are imbedded in time. “In history, testimony is inscribed in the relation between past and present, in the movement of understanding the one by the other. Writing is thus the mediation of an essentially retrospective science, of a thinking ‘backwards’.” (Ricoeur 2006, 170.)

What then is proof in history according to Ricoeur? In his discussion of documentary proof, Ricoeur (2006, 176–179) poses two questions: What is proof of a document? What can be proved through documents? Ricoeur points to the role of the historian: “If a proof role can be attached to the consulted documents, it is because the historian comes to the archives with questions” (Ricoeur 2006, 177). This means that “documents do not speak unless someone asks them to verify, that is, to make true, some hypothesis” (Ricoeur 2006, 177). In this way a tripod base of historical knowledge is formed, consisting of trace, document and question.

This process leads to the next stage: what can be thought to have been proved? Ricoeur answers: “A fact, facts, capable of being asserted in the singular, discrete propositions, most often having to do with the mentioning of dates, places, proper names, verbs that name an action or state” (Ricoeur 2006, 178). He is quick to point out that one should not make the mistake of assuming that these facts are identical with what has really happened. The nature of historical fact is propositional: true and false in this sense can be substituted by refutable and verifiable. (Ricoeur 2006, 179.) This is also apparent in his discussion on source critique, or as Ricoeur puts it, the criticism of testimony: “Doubt is an instrument of knowledge that assesses the degree of likeliness of the chosen combination. Perhaps it would be better to speak of plausibility than of probability” (Ricoeur 2006, 173).

Ricoeur’s views seem to imply that while no definite knowledge of what really happened is available to us, we can construct a defensible view of past events through the testimony (written documents) and vestiges (unwritten clues) available to us. In this process the questions asked of the documents are crucial. The fact that the subject is immaterial does not, in the end, alter the process of interrogation or

the examination of the documents. Evidence of the sounds created through the singing of polyphony in the churches of sixteenth-century Rome remains in the documents and vestiges available to us. What this study attempts to do, in the Ricoeurian sense, is to create a defensible view of what those sounds might have been like.

On a more specific level, historical performance practice scholarship has a great deal in common with the microhistorical approach. This approach has been described and advocated, for example, in the studies and theoretical writings of Carlo Ginzburg. His writings offer a method of investigation which Ginzburg refers to as the conjectural method, outlined in his *Miti emblematici: morfologia e storia*, a collection of articles from 1986.³ The key article is “Clues: Roots of an Evidential Paradigm” (Ginzburg 1992, 96–125), whose central idea is that clues can be as relevant to historical studies as sources. Whilst sources are the results of conscious reflection, clues are subconscious traces left by people in their words, works or actions.⁴ Ginzburg refers to the methods of the Italian art historian Giovanni Morelli, the father of psychoanalysis Sigmund Freud and Sherlock Holmes, the fictive character of Arthur Conan Doyle’s novels. The respective methods used by these men were all formulated at the turn of the twentieth century. Morelli proposed a new method of attributing works of art based on concentrating on small, trivial details instead of the traditional stylistic features of each artist; Sherlock Holmes analysed minute physiological characteristics and made generalisations; and Sigmund Freud, in turn, found access to the hidden, subconscious matters of the mind in small details of patients’ words and gestures. (Ginzburg 1992, 96–101.)

These are examples of what Ginzburg calls the conjectural paradigm (for example, Ginzburg 1992, 116), a method that has always been a crucial part of human experience. Hunting and divination are both based on this method: broken twigs, tracks and excrement are clues for a hunter, while the movement of the heavenly bodies or animal entrails provides clues for the diviner. (Ginzburg 1992, 102–103.) This conjectural (or venatic, divinatory or semiotic) method forms an epistemological model and offers the possibility to forecast retrospectively, to deduce causes from their effects. (Ginzburg 1992, 117.) A prime example of this method is

³ I used the English translation by John and Anne Tedeschi, *Clues, Myths and the historical Method* (1992).

⁴ Matti Peltonen formulates this well in his foreword to the Finnish edition of Ginzburg’s *Il formaggio e i vermi: Il cosmo di un mugnaio del '500* (1976). (Ginzburg 2007, 17).

medicine, where one diagnoses causes (ailments) from effects (symptoms). And because these effects can take on different forms in different individuals, the process is necessarily qualitative, not quantitative, and also implies a certain degree of uncertainty.⁵

Although medicine is the *primus inter pares*, owing to its “prestige epistemologically and socially” (Ginzburg 1992, 118), amongst these conjectural disciplines, history, archaeology, astronomy, geology and palaeontology use the same method of forecasting retrospectively (Ginzburg 1992, 117, 123). Even if the indefinite nature of this method may be unsettling in academia, there seems to be no alternative. I believe that the methods necessitated by the complicated nature of humans in medicine translate quite well into the language of history: there seem to be cases where no other method will penetrate as well. As Ginzburg puts it: “Though reality may seem to be opaque, there are privileged zones – signs, clues – which allow us to penetrate it” (Ginzburg 1992, 123).

A good example of a Ginzburgian clue are the names Palestrina scribbled on his *Improperia*, preserved in Codice 59 of the Archivio Musicale Lateranese (Casimiri 1919, 18–19; see also Tables VII and VIII). His intention was probably either to remind himself of the singers he should choose for the parts or to inform the singers of his choice or to remind the singers which of them was to sing which line in the performance. For us, however, these names carry different meanings: we can infer that this piece was performed with solo voices; we can also surmise that some measure of deliberation was put into choosing a good combination by the *maestro di cappella*, Palestrina. Another example could be the fines levied on singers of the Papal Chapel for beginning a piece on a pitch that was uncomfortable for the other singers (see, for example, Sherr 1987, 454). The intention of the scribe was to document the sanction for a misdemeanour. In doing so, the scribe left us a clue to how pitch was chosen in the papal choir: apparently, it was chosen freely by an experienced singer.

This method of forecasting retrospectively is central to the present study. The causes of the sound and the choices and deliberations that led to the sounds can in part be deduced from documents on singing. But in some cases the effects of the sound can only be found in signs and clues in documents that do not directly pertain to singing.

⁵ An excellent example is the popular TV series, “House, M.D.”, in which the good doctor and his assistants diagnose complicated, rare diseases from a multitude of symptoms.

The microhistorical approach advocated by Ginzburg has brought to light a world that is almost invisible at the macrohistorical level. By taking individuals or groups of individuals as their starting point, the proponents of microhistory have been able to reveal social and cultural connections not apparent on the scale of traditional history.

Ricoeur points out that the notion of scale is borrowed from cartography, architecture and optics (Ricoeur 2006, 210). When we move from one scale to another, there is a change in the level of information. An excellent example is *Google Earth*. If one types “St. Peter’s Rome” on the Google Earth search bar, the first information gleaned is where this point is on the globe. Gradually, the point is placed in southern Europe by the Mediterranean Sea; then it appears midway up the boot that is Italy; thereafter, in the city of Rome; then in the Vatican, until finally, the well-known building becomes apparent. Although in theory this is a continuum, in the end, one does not see the same things as larger or smaller; one sees different things. According to Ricoeur, this is true as well when a variation of scale is applied to history (Ricoeur 2006, 212).

Traditionally, history has been written from the general to the specific, from the top of the scale downwards. As Burke (2007, 3–4) points out, the traditional historical paradigm has been essentially concerned with politics and offered a view from above of the great deeds of great men based on official records. Thus, the lives of Renaissance composers have been punctuated with popes, positions and publications. Their persons and their everyday lives have been considered unimportant or unreachable, whereas their music and their public positions have a clear, independent existence. The microhistorical approach has challenged the traditional historical paradigm by reducing the scale of observation and submitting a broader range of documents to intensive study. As Giovanni Levi (2007, 101) puts it: “The unifying principle of all microhistorical research is the belief that microscopic observation will reveal factors previously unobserved.”

The question then arises, how does one write from the bottom upwards? Can the meticulous study of a small phenomenon lead to generalisations that make a larger social structure visible or more precisely defined, especially given that, at the bottom, the information in its uniqueness does “not meet the requirements for serial, quantitative history for which number and anonymity are important” (Ricoeur 2006, 213).

Giovanni Levi makes an important point in reminding that microhistorical studies do not appear in a void, but rather give new meanings to previously described phenomena and considers them within the traditional historical paradigm. Because of this existing context of study, “It is then possible to use these results [attained through alterations of the scale of observation] to draw far wider generalisations although the initial observations were made within relatively narrow dimensions [...]”. (Levi 2007, 102.) A similar observation is made by Sharpe (2007, 34) in discussing history written from below. He argues that isolated case studies and other similar studies can, when contextualised, avoid the pitfalls of what Ricoeur (2006, 213) describes as “falling back upon anecdotes and the history of events”.

In this study I hope to contextualise the ‘thick description’ (see, for example, Levi 2007, 102–104) of the Roman musical institutions, on the one hand, by painting a picture of religious, economic and political conditions of sixteenth-century Rome, and on the other hand, by presenting studies on the performance practices of the time that are not directly connected with the Roman institutions. Much of the material on the institutions and their practices is by nature microhistorical. This includes some of the earliest studies, such as Haberl’s (1888a and 1888b) and Casimiri’s (1935), as well as more recent investigations.

This process of contextualisation will hopefully place the Roman institutions in time and space; this means variations of scale from the most detailed events on the largest scale (i.e. the most detailed) to general events and those in church history, as well as those in the history of theology and ideas. I will not so much attempt to build the writing from the bottom upwards as to move freely between the variations of scale, depending on the question or hypothesis at hand.

There are special pitfalls in the historical study of performance practice that have been highlighted by many scholars. The major cause of these pitfalls is the scarcity of documentary material. In most cases, the scholar is working from a jigsaw puzzle with many or even most of the pieces missing and with some of the existing pieces misshapen. To form a coherent picture, some conjecture is usually necessary. And when we imagine the missing parts, two specific pitfalls threaten: on the one hand, inventing something that seems to fill in the gaps, and on the other hand, assuming that the rest of the picture is similar to what we see. A clumsy metaphor might be a jigsaw puzzle in which the existing pieces seem to form a jungle scene with a flash of orange near the middle. The inventor sees a tiger; the uniformist sees a tropical

forest with perhaps a ray of sun near the centre. As long as we do not have most of the pieces, both interpretations remain equally correct or incorrect.

Although Leech-Wilkinson's (2007) criticism is directed at scholars of medieval music, it is in many ways relevant to the scholarship on performance practice in the Renaissance period.⁶ Leech-Wilkinson (2007, 3) claims that we simply do not have enough hard evidence to arrive at definitive answers even to central questions of performing medieval music. Because of this lack of information, we invent; we reflect our personal beliefs, preferences, backgrounds and tastes on the material we have. Because this invention happens in small, conservative and reasonable steps, we do not notice that the end result can be an extremely radical interpretation from the limited material.

The other pitfall is the assumption of unity (see Kurtzman 2003, 347). From the material at our disposal we might readily infer that the practices outlined in our material were universal practices. Even though, as Taruskin (2010, 462) points out, making secure deductions from an absence is a dubious practice, it is a fairly common practice. In most cases blanks in the picture are filled in by assuming similar practices elsewhere. This can easily lead to a picture that is coherent, but too uniform.

A third pitfall is related to the previous two: even when we do have source material, it is not easy to interpret. We seldom understand the context of the writing and often tend to presume that the writing is descriptive, because our needs would be best served by descriptive and generalisable material, even when the text is strongly prescriptive. In addition, both the language as such, and the way it is used can be foreign to us. This all can lead, as Brown puts it, to using the sources to corroborate our guesses about what the early writers meant (Brown 1978, 165).

Even if these pitfalls are very difficult to avoid, remaining aware of them might help steer clear of their dangers. And in the end, if we want to glean information on historical performance practices, we have no other option but to try and form a picture from the material we have. I will try to argue why this process is worthwhile despite the obvious perils.

⁶ I am well aware of the potentially problematic nature of the concept of Renaissance music (see, for example, Taruskin 2010, 380–385). However, I believe there is a fairly general consensus that music of the Renaissance period, or the musical Renaissance, encompasses roughly the period between 1450 and 1600. The identification of such a musical period is in this study a practical tool, not an evaluative classification.

Rationale

The dominant practice today in performing sacred polyphony of the sixteenth century is surprisingly uniform. Most of the performances and recordings we hear are without instruments and sung by smallish ensembles varying from four to sixteen singers. The tempos are fairly similar, with a pulse (in duple time) of two beats per bar in the modern editions that these groups predominantly use. The choice of pitch is a little more varied, although it seems to depend mostly on the voice distribution in the group. Often the easiest way to tell one group from another is the sound of the group, not the way they approach the music.

Even if this characterisation is a little exaggerated, the uniformity of the performances is surprising. This is, after all, music whose notation divulges very little information about its performance. There are no sixteenth-century treatises specifically on how to perform sacred polyphony. Is there something inherent in the music that guides performers to similar solutions in the choice of tempo, character, pitch or ensemble? I believe there is, yet we cannot discount the explanation of a strong modern performance tradition that has moulded our understanding of how Renaissance polyphony should be performed.

This contemporary performance tradition is modern in the sense that we seem to believe that present-day, historically-informed performances of early music are in some decisive manner closer to performances at the time this music was created than, say, the performances of fifty years ago. Is our confidence in the authenticity of modern performances of Renaissance music justified? How do contemporary performances compare with those described in the fifteenth- and sixteenth-century sources? These are questions that this study attempts to answer insofar as they pertain to the Roman practices of sacred polyphony in the institutions where Palestrina worked during the latter half of the sixteenth century. The study should reveal which elements of contemporary practices are close to those of the sixteenth century and which differ the most.

A completely different question is whether the available knowledge about sixteenth-century performance practices, be it direct or implied, has any specific implications for twenty-first century performances. There is no moral obligation to perform musical compositions the way they were performed at the time of their conception. Because we live in a completely different world from the people who heard sacred

polyphony in 1575, even a performance identical to those in Rome that year would not be received in the same way. If we heard Palestrina's forces performing his music, we might just shrug our shoulders and find we really did not like it. After all, is this not what we often do when we hear recorded performances of composers playing or conducting their own works when the performance does not appeal to us?

Be that as it may, experience has shown that knowledge provided by historical studies of the way music was performed at the time it was created continuously moulds the modern performance tradition and gives it new direction. This is particularly the case when findings are disseminated through performance and are thus encountered aurally rather than through scholarship. But even traditional musicological scholarship can give new impetus to performance, although the time it takes the new findings to filter into musical practice is normally much longer.

And it is from this viewpoint of musical performance that I strongly defend historical performance practice study. While the scholar in me shares many of the doubts raised, for example, by Leech-Wilkinson (2007), the musician in me has experienced the benefits of these studies. The most important benefit is that historical studies of performance practice makes us aware of our dominant musical practices. As Taruskin (2010, 67) puts it in his defence of music history: "And perhaps even more important, it [putting ourselves in the position of contemporaries of the music] gives us a distanced perspective on our own contemporary world, a form of critical awareness we would otherwise never gain". Through the analysis of historical practices we become aware of the choices we have made and see alternatives to these choices.

The musician and historian still walk different paths, even when they exist within the same scholar-performer. Again I turn to Taruskin (2010, 159): "But whatever we learn from our own analyses and our own performances must obviously go far beyond the evidence of the sources into a realm where only artists dare tread, not historians". For the scholar-musician, there are two different kinds of evidence: historical evidence and empirical evidence.⁷ Either can be completely sufficient in its own field, yet offer little to the other (see Taruskin 2010, 159). But they do converse, with the historical evidence giving ideas for experimentation and the empirical evidence corroborating or challenging historical reconstructions. That throughout

⁷ As Brown (1978, 167) observes, the evidence for the ideal of singing Renaissance polyphony in the 1970s was more empirical than historical, i.e. performers chose the way of singing that seemed to produce the best results. I believe this is in general typical of performance. Thus any historically-informed performance will, almost by default, be an amalgam of historical and empirical knowledge.

the history of performance practice studies so many of its scholars have also been performers of the music seems to speak volumes for a special symbiosis between scholarship and performance in this discipline. At the same time, the end result should not be a shady amalgam of the two, but measured by scholarly criteria on the one hand and by musical criteria on the other.

Aspects of performance practice

What are the central aspects of performance practice? An analysis of seven articles on the performance practice of polyphony in the fifteenth and sixteenth centuries (Cavicchi 1977, Brown 1978, Lionnet 1987, Sherr 1987, Brown 1989, Reynolds 1989a and Dixon 1994) suggests some guidelines. All of these writers discuss whether the norm in performing Renaissance polyphony was solo or choral performance. The use of instruments is discussed by all but Sherr (1987), who focuses on the Papal Chapel, which had an exclusively *a cappella* tradition. The following subjects are discussed in at least three of the articles: ornamentation, size of the choirs and distribution of voices, singing (technique, timbre, style), context, pitch and text underlay; by contrast sopranos (falsettists, boys, castrati), pulse (tempo) and repertory are the subject of only two articles. *Musica ficta*, acoustics and the music (choirbooks, partbooks) used by the singers appear in only one of the articles.

All of these elements will be taken up in this study. In addition to a discussion of the choice of performing pitch, I will introduce the use of the high clefs or *chiavette* and their implications. There is also a sub-chapter on singing plainchant. This is relevant in the sense that, for example, *alternatim* masses require the use of chant as well as some of Palestrina's well-known works such as the *Impropria*.

Related literature

There are no monographs on the performance practices of Palestrina's sacred music. The closest to the subject of the present study are several articles on performing sacred polyphony in the time of Palestrina. Cavicchi (1977) briefly discusses several aspects of performance practice in Italian cathedrals in the latter half of the sixteenth century on a fairly general level. A similarly general discussion, although

pan-European in scope, can be found in Brown (1978; 1989) and Reynolds (1989b). A discussion of solo contra choral performance of polyphony in the Papal choir was initiated by Lionnet (1987), who proposed that polyphony was performed with solo voices during the early seventeenth century. Direct or indirect responses to Lionnet are Sherr (1987), Dixon (1994) and O'Regan (1996). Sherr lists references from the sixteenth century that both verify and refute solo performance at the Papal Chapel in the sixteenth century, whilst O'Regan proposes a compromise. Dixon's article includes, in addition to this discussion, an interesting reference to the ornamentation practice of Palestrina's time and its possible adaptation to sacred vocal polyphony.

The most important primary sources on the Papal choir and its practices are the *Diarii Sistine*, the chapel diaries, and the Constitution of the choir from 1545. The latter has been published (in Latin) in Haberl (1888a) and the diaries from the 1530s appear in Casimiri (1924; 1926). The diary from the year of Palestrina's death, 1594, has been published in Frey (1974) and shows that the practices described in the diaries of the 1530s and the Constitution were still very much part of the life of the papal choir in the 1590s. Archival studies on the Papal choir include similar references to performance practices: Haberl's classic study (1888a) provides information on the size of the Papal choir as well as the duties of its singers. Other studies of the Papal choir, especially those by Richard Sherr, also include aspects of performance practice. Sherr (1978) analyses the diary of a papal singer, Giovanni Antonio Merlo, and sheds light on both the repertory and the performance practices of the chapel. Sherr (1994a) illuminates the problems of the personnel in the Papal choir and gives the glamour usually afforded this ensemble a darker sheen. Sherr (1982 and 1997) considers some of the practices of the Papal Chapel in the early sixteenth century. Rodin (2012) places Josquin's Roman works in the context of the Cappella Sistina in a novel manner.

The choir of St. Peter's, known from 1513 as the Cappella Giulia is also well documented. In a similar way to the Constitution of the Papal choir, the Ordini (1600) lay out the responsibilities and privileges of St. Peter's choir. Rostirolla (1977) lists the musicians of St. Peter's in Palestrina's time, as well as giving consideration to the organs and the use of the organs at the basilica. Reynolds (1995) provides information on the music of St. Peter's before 1513 and is especially valuable for its discussion of the use of the organ at St. Peter's. Palestrina's other places of employment have featured less prominently in literature, but the basic facts are

readily available. Casimiri (1935) describes the forces at Palestrina's disposal in the Seminario Romano, as well as the role of music at the institute and its liturgy. Simi Bonini (1991) is a concise article on the archival data from the San Giovanni in Laterano and Santa Maria Maggiore during Palestrina's periods as *maestro di cappella*; its information is predominantly numerical. Pugliese (2006) lists the musicians, both singers and instrumentalists, who worked with Palestrina at the Villa d'Este. The more occasional tasks Palestrina performed with confraternities are described in O'Regan (1994a). Interesting comparisons to these institutions can be found in the descriptions of San Luigi dei Francesi in Lionnet (1986) and the Collegio Germanico in Dixon (1994).

The polyphonic repertory of the Papal Chapel and the Cappella Giulia is analysed in Haberl (1888b), Brauner (1984; 1990; 2004), Dean (1988; 2004), Roth (1998) and Janz (2000). Haberl lists the codices of the Papal Chapel (Cappella Sistina), with their contents, whilst a contemporary analysis of the codices is found in Janz (2000). Marvin (2002) lists all the extant manuscripts and early prints of Palestrina's works, including those in the library of the Vatican. Brauner, Dean and Roth all argue for the conservative nature of the choice of liturgical music at the Papal Chapel and the Cappella Giulia. Much of the music copied into the codices was already several decades old at the time of its copying, and many of the works seem to have remained in the repertoire for decades. As there are few sixteenth-century references to specific works performed in the liturgy, the codices of the Vatican choirs are the best source for knowing what the choirs sang.

Other articles that provide a larger view of aspects of performance practice in the fifteenth and sixteenth centuries are D'Accone (1976), an excellent source on the size of Italian choirs in the early sixteenth century; Reynolds (1989b), a concise summary of the elements of performance practice in Renaissance polyphony; and Reynolds (1989a), a lengthy depiction of the musical life of Rome in the sixteenth century, which considers the effects of the Counter-Reformation on the music of the religious institutions, as well as on many elements of performance practice. An interesting comparison to the practices of Rome can be found in Wright (1978), who describes the performance of polyphony at the Cathedral of Cambrai. Haar (1989) in turn is an analysis of the Bavarian chapel under Orlande de Lassus.

With regard to the aims and methods of this study, Jeffrey Kurtzman's (2003) monograph on the Monteverdi Vespers of 1610 is the closest parallel. Kurtzman's book, which I only came across after I had decided on the form and methods of my

own study, also attempts to give a general view of the different aspects of performance practice within a specific context. In Kurtzman's case this context is the performance of Monteverdi's *Vespers* in seventeenth-century Italy, but the aspects of performance practice Kurtzman discusses are quite similar to those examined here. Kurtzman's sources are predominantly theoretical treatises of the late sixteenth and early seventeenth century.

For two main reasons, I have adopted a different approach. First of all, I have felt that much of the secondary literature on music in Renaissance Rome includes a great deal of material that is relevant to performance practice. Yet the material from these studies in many different fields has seldom been approached from the point of performance practice, especially its practical implications. Thus the aim of this study is to bring together different pieces of information scattered throughout the extensive secondary literature on the period. Secondly, I believe that the relationship between theoretical treatises and performance practice is more problematic than many scholars seem to think. The normative nature of the writings makes it very difficult to judge whether the practice the theoreticians are describing is actually the norm or something very different from the norm – if there ever was only one norm with regard to performance. Thirdly, the secondary literature clearly guides the reading of the primary sources. Both the choice of passages from these sources, as well as their interpretation tends to follow earlier scholarship. To make this process more transparent, even when referring to the primary sources, I have tried to show which secondary sources led me to specific passages in the primary sources. When I have felt the reading of the primary sources to be problematic, I have tried to dig deeper into the context of the cited passage.

Individual aspects of performance practice have been the subject of many studies. The style and technique of singing in the sixteenth and early seventeenth centuries are described in Uberti (1981) and Wistreich (2000), to which Dyer's (2000) analysis of medieval singing technique gives an interesting background. Greenlee (1987) discusses the technique of florid singing. Potter (1997) and McGee (1985) give summaries of the historical evidence on singing. Wistreich's (1994) analysis of a Monteverdi letter from May 1627 gives insights into the thoughts of a leading composer on singing and Schiltz (2003) describes the connection between singing and acoustics in the writings of sixteenth-century theorists. Many of the sixteenth-

century texts these writers refer to are collected and translated in MacClintock (1982). Somewhat surprisingly, Manuel García's (1984) treatise on singing from the mid-1800s proves to be a starting point in the quest for sixteenth-century singing technique (see the discussion in 'Singing technique and sound' in chapter Five). Stark (2008) gives a balanced view of the historical development of singing as well as a glimpse into modern physiological studies on singing. Sundberg (2000) is a concise article on the physiological and physical aspects of singing.

Sixteenth-century ornamentation technique and its sources were first analysed in Kuhn (1902). Ferand (1966) is a list of the known sources, both the instructional books and the collections of works with diminutions by the author. Horsley (1951) is an analysis of the sources. Erig (1979) features the music of Italian works with multiple diminutions from the turn of the seventeenth century. Two studies that marry theory and practice with aplomb are Brown (2002) and McGee (1985). Both include analyses of sixteenth-century sources and suggestions for performance. A larger view of the practice of improvised ornamentation as part of a larger aesthetic movement is given in Maniates (1979).

The use of instruments in sacred polyphony is discussed in several studies. Brown (1978) emphasises diversity in the performances of the sixteenth century. Reynolds (1989a) makes the general conclusion that the *a cappella* tradition weakened after 1500, whilst Reynolds (1989b) mostly describes the use of the organ in the liturgy. Reynolds (1995) discusses the use of the organ at St. Peter's. O'Regan's studies (1991; 1994; 1994; 2009) of the musical activities of several Roman institutions and Palestrina's freelance work shed light on the use of instruments in the liturgy. D'Accone (1976) finds relatively little documentation on instrumentalists hired by Italian churches in the sixteenth century, whilst Korrick (1990) approaches the question from an interesting point of view: the critical writings of the Reformers. An interesting description of the use of instruments in polyphony from the early seventeenth century is Agostino Agazzari's (2003) treatise from 1607. All the studies of specific musical institutions naturally consider the use of instruments.

The technique of adding *musica ficta* to notated music has been well analysed and described in Routley (1985), Berger (1989), Wegman (1997) and Bent (2012). Brown's (1976) article featuring lute and organ intabulations of Josquin's motets and the *musica ficta* incorporated into them provides valuable insight into sixteenth-century practices. For discussion of pitch, the standard work is Haynes (2002). The

method for defining the choice of pitch through analysis of the tessituras of the vocal parts in Fallows (1983) will be used to some extent in this study. The implications of the high clefs or *chiavette* are discussed in Parrott (1984) and Kreitner (1998). Johnstone (2006) provides an excellent summary of the rationale of *chiavette* and the transpositions they imply. Tempo is a subject surprisingly little discussed. Tactus, meaning both the essential measure of the music and the method of beating this measure, is analysed in depth in Bank (1972). Dahlhaus (1959 & 1960) clarified many aspects of tempo and tactus, and DeFord (1995 & 1996) has shown how diverse were the interpretations, especially of ternary passages, in the sixteenth century. Paine's (1988) article enforces this diversity, one may say even its confusion, through an analysis of the writings of Michael Praetorius on the subject. Two articles on absolute descriptions of tempo by Ephraim Segerman (1996a; 1996b) challenge many generally accepted views. Schiltz (2003) is one of the only studies to take acoustical aspects into account.

Several books of great interest to this study fall into the category of guidebooks for performers with an interest in the sixteenth-century sources. These scholarly guides include works such as Brown (2002), a concise work on ornamenting sixteenth-century music; McGee (1985), which covers both Renaissance and medieval music; and Smith (2011), in which the writer marries the practical plain of music-making with selected writings from theoretical treatises of the sixteenth century. Collections of articles for the performer of Renaissance music, such as Brown & Sadie (1989), Knighton & Fallows (1997) and Kite-Powell (2007) also offer much of interest for this study.

Palestrina's life is documented in several biographies. His early biographer, Giuseppe Baini (1828, two volumes), combined meticulous research with some less scholarly writing based on verbal tradition and a desire to portray the composer in a favourable light. Of the modern biographies, Bianchi's (1995) documents the composer's life in detail. Combined with the *Iconografica palestriniana* (Bianchi & Rostirolla 1994), which reproduces a great number of the documents relating to Palestrina, Bianchi's text forms the basis for the study of Palestrina. Discussion of Palestrina's works forms an important part of the composer's biographies by Fellerer (1960), Heinemann (1994) and Della Sciuca (2009). Interestingly, there is no biography of Palestrina in the English language more recent than Coates (1938). A useful tool in Palestrina scholarship is Marvin (2002), who catalogues all research on Palestrina up to the year 2002, as well as listing the location of early Palestrina

editions. Many articles complete the picture: Palestrina's relationship to the Oratory of the Santissima Trinitá dei Pellegrini is discussed in O'Regan (1991) and Bertini (1977). Bernstein (2006 & 2007) describes Palestrina as the publisher of his own music.

The music of Palestrina has thus far been most readily available in the Casimiri edition (1939–87) in 35 volumes. The new edition, Edizione Nazionale delle Opere di Giovanni Pierluigi da Palestrina, an ambitious undertaking that plans to publish all the music and documents pertaining to Palestrina, has so far reached its second volume. In addition to a score edited according to present conventions (modern clefs, barlines, halved note values), the edition includes a facsimile of the first edition and an interesting combination of original clefs and note values with no barlines, but in score format. The combination of facsimile and the last described edition are a novelty that will hopefully attract attention and entice performers to venture into the world of the notation of Palestrina's time.

The chapter on Rome in Palestrina's day relies on fairly general works on the subject, mainly in the English language. Besides Burckhardt's (2008) classic study on the civilization of the Italian Renaissance, originally published in 1860, Italian history and culture are admirably depicted in Hanlon (2000). A central source on daily life in the Italian Renaissance is Cohen and Cohen (2001). A good pan-European comparison with the Italian Renaissance is given in Hale's (1995) study on Europe in the Renaissance period. An innovative book that discusses the arts as part of the Renaissance culture and social structure of Italy is Burke (2000).

Rome is the subject of an endless series of books. The three main sources I have used are the classic study by Delumeau (in two volumes: 1957 & 1959) on the socio-economic conditions of Rome in the latter half of the sixteenth century, and two works on Renaissance Rome by Stinger (1998) and Partner (1979), both of whom are more interested in the events on a macrohistorical level. Reynolds (1989a) describes sixteenth-century Rome with an emphasis on its musical life.

The history of Rome in the Renaissance is inevitably also the history of its popes. The standard work is Ludwig von Pastor's (1950; 1955) *History of the Popes*, originally published from 1886 to 1930. A more approachable, but thorough work is Duffy (2006), who shows how the papacy of the Counter-Reformation gradually moved from the secular character of the early sixteenth-century papacy to a more spiritual leadership. Delumeau (1970), on the other hand, emphasises the role of the popes as secular sovereigns. Collins (2009) situates the papacy firmly in time and

place, making connections to general history and social structures, whilst O'Malley (2010) places the popes more squarely within the realm of the Catholic Church.

Palestrina's activity in Rome coincided with the Counter-Reformation. His professional and personal life was affected by the new theological ideas of the Council of Trent, its practical implications and the alterations in the religious atmosphere of the city. The influence of the council's discussions and the article on music in the liturgy in the church in general, and specifically Palestrina's, is discussed in Bianchi (1995), Della Sciucca (2009), Damilano (1977) and Monson (2006). Monson offers the clearest analysis of the myth of Palestrina as the saviour of church music. The practical liturgical alterations in post-Tridentine praxis can be found in Harper (2001).

Counter-Reformation Rome was not just curial Rome, the Rome of the head of the mighty Catholic Church, but also a city of lay piety. At the centre of this activity were the confraternities. A valuable, if perhaps a little too vividly coloured view of these is given in *Roma Sancta* of 1581 by the English Jesuit Gregory Martin (1969). The activity of the early Jesuits is described in great detail by O'Malley (1995), and the life of the captivating figure of San Filippo Neri appears in Ponnelle & Bordet (1937). Palestrina's possible connection with Neri's Oratory of the Santissima Trinitá dei Pellegrini is discussed in O'Regan (1991) and Bertini (1977). O'Regan (1994a) describes his contacts with other confraternities in Rome.

The quest for answers to how Palestrina's sacred music was performed in Rome during his time there will begin with a short excursion through the political, spiritual and economic situation of Palestrina's city (Chapter Two). This chapter is followed by an analysis of the musical institutions that employed Palestrina in Rome (Chapter Three). The elements of performance practice that become visible through these institutions will be analysed separately in the last chapter along with their implications for modern performance (Chapter Four).

II Palestrina's Rome

Giovanni Pierluigi, musician and composer, was known throughout his career as the man from Palestrina.¹ In the end, however, he was more a man from Rome than the historic town of Palestrina, which is situated approximately 30 kilometres east of Rome. He might even have been born in Rome, as the Roman census of 1526–27 features a Santo de Prenestina, the head of a household of twelve in the *rione* or district of Monti. Palestrina's father's name was either Santo or Sante, and it is possible that Giovanni was born whilst the family resided in Rome.² (Bianchi 1995, 7.)

Independent of whether Palestrina was born in Rome or in Palestrina, his family definitely stemmed from the latter, and there is documentation placing the composer's family and the young man himself in the town during the 1530s and 1540s. A year after his mother's death in 1536 (Bianchi 1995, 12), the records of the Santa Maria Maggiore of Rome show that one of the boy choristers placed in the custody of Giacomo Coppola, a singer-chaplain of the church, was Ioannem de pelestrina (Bianchi 1995, 14). As he is presumed to have been born either in 1525 or early 1526,³ Palestrina would seem to have spent his early teens in the eternal city.

Giovanni Pierluigi returned to the town of his ancestors by 1544, as he took up his first professional position as organist at the local cathedral in 1544 and married Lucrezia Gori in 1547. Two sons were born to the couple in Palestrina: Rodolfo in 1549 or 1550 and Angelo in 1551. (Bianchi 1995, 22–24.) The election of the bishop of Palestrina, Cardinal Giovanni Maria del Monte, as Pope Julius III in February 1551 opened doors that the young composer would in all likelihood not have dreamt

¹ In the documents pertaining to Palestrina cited in Bianchi (1995), his name is written in dozens of different ways. The basic Italian form is Giovanni Pierluigi da Palestrina and the Latin translation Ioannes (or Joannes) Petraloysio prenestinus (Pier = Petrus; Luigi = Aloysius or Aloisi). The multiple forms partly arise from different spellings of his name and partly from the different forms of the name of the town of Palestrina (Italian: Palestrina, Pellestrina, Pillestrina; Latin: Preneste, Penestre, Penevre) (Bianchi 1995, 3). Palestrina himself most often used the mixed form Giovanni Petraloysio, and only in one case did he refer to himself as the Palestrinian (Il Palestrino) (Lockwood, O' Regan & Owens 2001, 1937). A good idea of the variations on his name can be gleaned from the diaries of the Papal choir, which know him, for example, by the names Joannes de Palestrina, Jo. Pierloysio Prenestinus, Giovanni Pier Loisci and Gio. Pierloisci de Pelestrina (Haberl 1888a, 94-95; Frey 1974, 456, 459).

² This move could have been caused by a bout of plague that hit the town of Palestrina in late 1524 (Bianchi 1995, 8).

³ This assumption is mainly based on a document from the year of his death (1594): the obituary written on the page of a collection of Claude de Sermisy's motets by the singer Melchior Major. Major notes that Palestrina died at the age of 68 (*Vixit annis LXVIIJ*) (Lockwood et al. 2001, 938; Bianchi 1995, 255.)

of seeing opened. In September 1551 Palestrina was appointed *magister cantorum* of the Cappella Giulia, the choir of St. Peter's. (Bianchi 1995, 26–28.) From this point on, Rome was the city in which Palestrina lived and worked until his death in 1594 (see the Palestrina time line at the end of this Chapter).

What was this city like in the latter part of the sixteenth century? We know it was the city of the popes in the time of the Counter-Reformation; a city of brilliant palaces and churches; a city often brimming with pilgrims. But what was it like to live in that city? This chapter will attempt to capture some elements of the life of a bustling half-century in this city of stark contrasts. A wonderful metaphor for these contrasts was the marble slab that the fishmongers used to sell their fish at the fish-market (Augias 2008, 435). These prosaic slabs were originally from a loftier reality: ancient Roman temples. High and low, temporal and divine, beauty and filth lived side by side in the city of the popes.

City of the popes

Rome of the fifteenth and sixteenth centuries was above all the city of the popes. When the unified papacy returned to Rome after the Avignon papacy (1309–77) and the Great Schism of multiple popes between 1378 and 1417, Rome was a collection of small medieval villages on the banks of the Tiber. Between these villages cattle and sheep roamed, vines grew and the monuments of ancient Rome were used as shelters or as raw material for building. (Duffy 2006, 163–170, 168–175, 178.) The city walls, which in imperial times had given shelter to approximately a million inhabitants, in 1447 protected only 20,000 Romans (Hanlon 2000, 136). The city had no industry to speak of and its only function was as the capital of western Christendom (Duffy 2006, 178).

The fifteenth-century popes set about repairing the glory of Rome. Their vision was to build a Rome that was to be a new Jerusalem: to revive the glory of ancient Rome that had been lifted from its pagan status through the blood of the Christian martyrs. (Stinger 1998, 74–75, 177–178.) This humanistically-coloured religious vision was to be carried out through building new churches, new streets and new palaces that would evoke awe in visitors. Nicholas V (1447–55) formulated the vision in his famous deathbed speech: although the cultured could understand Rome's glory and authority through study of the antique, the uncultured masses needed

something that would appeal to the eye and make them accept the authority of the church through majestic buildings and art. (Duffy 2006, 180–181.) Even as the optimism and energy of the humanistic movement subsided in the sixteenth century, the vision remained: Rome saw a frenzy of building that brought wealth and prosperity to its citizens, especially in the latter part of the sixteenth century.

The popes who ruled between 1492 and 1555 probably represent the nadir of the spiritual side of the papacy: they ruled like worldly kings, had lovers, favoured their natural sons and daughters, waged and fought wars, were blatantly nepotistic and amassed huge fortunes for their families. At the same time, we do well to remember that they were in essence kings: they led the Papal States that encompassed present-day Lazio, Umbria, Emilia-Romagna and the Marches. The Papal States formed one of the major political forces in Italy. The popes played France and Spain, the two superpowers operating in Italy, against each other, in moves that often worked to their advantage, but at times led to catastrophes. All through the first half of the sixteenth century the population of Rome rode on these waves that sometimes brought wealth and glory, and at worst caused great havoc within the city itself.

Rome and the Papal States formed a state run by an elected monarch, the pope. As Delumeau (1970, 296) points out, the Papal States' centralised administration was as well organised as the administration of any other sixteenth-century European state. The pope's head of government was a cardinal-nephew who could be trusted in the scheming Roman curia.⁴ The cardinals, in turn, formed the pope's senate and by the end of the sixteenth century ran all things ecclesiastical and political through cardinal congregations. The cardinals, who numbered 18 in 1440 and 70 in 1590, were above all politicians: they came predominantly from the noble Italian families and had studied and practiced law, not theology. Especially in the early sixteenth century, the cardinals were prince-like: they were richer than the Roman barons and ran households with as many as 300 members, or more. (Hanlon 2000, 60–61, 106, 138; Delumeau 1957, 434, 44; Delumeau 1970, 293.)

Whilst the popes played king, a religious movement swept through Europe. It is evident that the early sixteenth-century popes had little understanding of the

⁴ Nepotism (from the Italian *nipotino*, nephew or grandson) was not only a tolerated, but also a theologically justified practice. The *in sanguinibus* of Micah 3:10 (in the King James version, "They build Zion up with *blood* and Jerusalem with iniquity.") of the Vulgate was translated by medieval theologians to mean building Zion with blood-relations, thus justifying nepotism at the very top of the ecclesiastical hierarchy. (Partner 1979, 11.) Even the Counter-Reformation popes continued this policy. Pope Paul III's (1534–39) first two cardinals were teenage grandsons, and Gregory XIII (1572–85) made his natural son governor of the Castel Sant'Angelo, the official responsible for the defence of the city (Duffy 2006, 209, 218).

seriousness of the Lutheran challenge. At first, they seem to have seen it as a squabble between the Dominican and Augustian orders; later they believed it could be brushed aside with the usual steps taken against heretics. Pope Leo X (1513–21) reacted to the challenge too late and with the wrong means: excommunicating Luther in 1520 only served to inflame the schism between the Protestants and the papacy. (O'Malley 2010, 182; Heininen 2004, 65–66.) As a result, by the mid-1530s England, Scandinavia and the Northern parts of Germany had eluded the grasp of the church, and Rome's position as the centre of western Christendom had taken a major blow (Stinger 1998, 325).

Another heavy blow to the papacy and its temporal aspirations was dealt in 1527. After Leo's nephew, Pope Clement VII (1523–34), had repeatedly shifted his alliances between France and Spain, he ended up on the wrong side at the wrong time, and almost 20,000 soldiers consisting of German, Spanish, and Italian forces attacked Rome in May 1527 (Chastel 1983, 26–27). The Romans were expecting a short siege resolved by a suitable ransom, but the soldiers, not having been paid wages for months and having lost their commander during the battle, wreaked havoc on the town for almost a year. In the initial week of pillaging, thousands lost their lives, women were raped and everything valuable was looted. Because many of the German lansquenets were ardent Lutherans, the sack had an unusual religious fervour to it, and clergy, nuns, churches and relics came in for especially harsh treatment. After the initial frenzy of violence, the soldiers turned their attention to ransom: anyone with wealth was forced to pay a ransom for their freedom, in many cases several times over. If they had no means, then they were fairly likely to be tortured and killed. Even though many of the soldiers fled the city to higher ground when an epidemic broke out, they returned to continue their pillaging in the autumn. In February 1528, when an agreement was finally reached, there were still over 10,000 soldiers left in the city. (Chastel 1983, 35, 91–92; Pastor 1956, 255, 260–261, 263–264.)

The terrors of the Sack combined with the loss of Protestant lands challenged the Catholic Church and its popes in a completely new way: the authority of the Church was under siege. Part of the critique was dogmatic, but many of the Protestant writers focused on the corruption and decadence of the papacy and of the Catholic Church. A popular interpretation of the Sack was to see it as God's just retribution for the worldliness of the papacy (Chastel 1983, 225). The Sack ended the Renaissance dreams of the papacy as a major political force, a new Roman empire.

In Stinger's (1998, 325) view it also ended the optimistic humanistic era and a darker, more penitential Roman culture and theology took over.⁵

The tide turns

With the loss of political power dreams of Roman temporal might were stifled. At the same time, the spiritual winds blowing through Western Europe started to make themselves felt in Rome. The period between the Sack and the election of Paul IV in 1555 mark a period of contrasting trends. On the one hand, it saw a resurgence of Renaissance pomp and brilliance during the reign of Pope Paul III (1534–49). Yet the same pope was responsible for the internal reform of the church through the Council of Trent initiated during his papacy. It also saw the rise of conciliatory movements within the Catholic Church, as well as the founding of the Roman Inquisition. Lay piety and an anxiety for the salvation of the soul coloured the religious climate, in addition to new movements, such as the ones founded by Ignatius Loyola and Filippo Neri. (Duffy 2006, 209–214; Stinger 1998, 326–330.)

Especially interesting are the movements within the Catholic Church that were prepared to accept some of the criticism posed by the Protestants. The famous reform commission of 1536–37 led by a devout Venetian layman, Gasparo Contarini, blamed the papacy, the cardinals and the ecclesiastical hierarchy for the problems of the church, including the Protestant Reformation. It pointed out corrupt practices on all levels of the church. The report was suppressed, but many of the members of the reform commission continued to carry weight, and a group called the *spirituali* gathered around Contarini and Reginald Pole.⁶ This group emphasised salvation, personal religious experience and the gospels as the pure version of God's Word. Pole, who was made cardinal by Paul III, came within one vote of being elected pope in 1549 when Palestrina's first patron, Julius III, was chosen. This implies that the *spirituali* were not alone in their conciliatory views. (Duffy 2006, 211–212; Stinger 1998, 327–329.)

⁵ Stinger (1998, 325–326) makes a clever comparison between the Michelangelo frescoes of the Sistine Chapel. He sees the Last Judgement, completed in 1541, as stemming from a completely different culture than the ceiling paintings (1508–12) with their emphasis on creation and natural theology.

⁶ Michelangelo was on the fringe of the *spirituali* circle through his friendship with Vittoria Colonna, a Roman noble whom Michelangelo befriended during the late 1530s (Partner 1979, 217–218). Michelangelo seems to have shared many of Vittoria Colonna's religious views, which were close to those of Cardinal Pole.

A totally different attitude to the challenges of Lutheranism was adopted by Cardinal Giampietro Caraffa who was also a member of the reform commission. If Caraffa agreed on the need to purge corrupt practices in the church, he had no sympathy for the Lutherans. For him, any views that encompassed Lutheran ideas were simply heretic. Caraffa convinced Paul III to found a Roman Inquisition in 1542 after negotiations with Protestants led by Contarini had failed. Caraffa himself became one of the six inquisitors general and used his powers to set up a prison in Rome and even bought the locks and chains for it at his own expense. Caraffa and the agents of the inquisition kept a close eye on the *spirituali*, but did not move against them before Caraffa's election as Pope Paul IV in 1555. (Duffy 2006, 212; Partner 1979, 221.)

In the midst of these cross-currents, the reform of the church went on its official way at the Council of Trent, which convened after years of preparation in 1545. The Council, which lasted until 1563, convened in three periods (1545–47; 1551–52; 1559–63). Its answer to the challenge raised by the Protestants was clear: the central dogmatic teachings of the Catholic Church were uncompromisingly upheld, although the commission did streamline many teachings of late-medieval interpretation. At the same time, the Council took a great deal of criticism into account on the practical level. If the policy was fairly unflinching on the theological level, the Council demanded many practical reforms, especially as far as the clergy was concerned. The Church was to be, as Duffy (2006, 214) puts it, “better organised, more clerical and more vigilant”.

Creativity versus Conservation

As Duffy (2006, 217) points out, the popes of the Counter-Reformation form part of a dialectic between creativity and humanistic worldliness on the one hand and conservation and austere Counter-Reformation spirituality on the other. This is most apparent in a comparison between Paul III (1534–49) and Paul IV (1555–59). Paul III was in some ways firmly rooted in the humanistically-coloured thinking of the early sixteenth-century Renaissance. In his pluralism he could embrace both the reformers of the *spirituali* and the conservative Cardinal Caraffa. It is perhaps not just a coincidence that new movements like the Jesuits rose during Paul III's reign. Caraffa as Pope Paul IV was more conservative, cautious, reactive and suppressive.

Renewal for Paul IV was a question of returning to age-old traditions and the purity of dogma.

Between these two men was Julius III (1550-55), Palestrina's first papal patron. His reign is better remembered for his passion for onions and the elevation of a teenage protégé to cardinal than for political or spiritual leadership.⁷ Julius preferred spending time at his new residence, the Villa Giulia, hunting, attending the theatre and enjoying quiet luxury (O'Malley 2010, 203). The real shift in the Roman climate came with the election of Cardinal Caraffa as Paul IV in 1555. Partner (1979, 7–8) perhaps exaggerates a little in calling Paul IV “a self-deluding old bigot whose reign was a disaster for the court and a misery for the people”, but his papacy was certainly a time of trouble for many people. The Inquisition was at its peak, and the papacy of Paul IV was in many ways a reign of terror. Besides suspected heretics, the Inquisition also pursued sodomists; not even pilgrims were spared: visitors to Rome had to open their luggage to the agents of the Inquisition. The Inquisition's powers in cases of suspected heresy were limitless; its methods included torture and even capital punishment. (Partner 1979, 45; Delumeau 1957, 143.)

An especially sordid chapter is Paul's treatment of the Jewish community of Rome: it was closed up in a walled ghetto, its real property was confiscated and the men were forced to wear a yellow beret and the women a yellow cloth on top of their other clothing (Delumeau 1957, 487–488). Paul IV also published the Roman Index of Prohibited Books, initiated campaigns to imprison prostitutes and expel beggars and tramps and even had the time to fire any married men from his Papal choir. One of these men was Palestrina whose career in the choir came to an abrupt end only a little over a half year after its inception. Paul IV's war on Spain in 1556–57 was the main political mistake of his reign: in August 1557 the Spanish stood at Rome's gates and a new Sack seemed imminent. Rome was spared, but the Spanish troops terrorised the *campagna*, the countryside surrounding Rome, for a year. The Spanish presence in the *campagna* and a severe flood of the Tiber brought a famine in the winter of 1558. This time, Paul IV decided to banish not only beggars, but also agricultural workers, many of whom must have been refugees. At Paul's death in 1559 the people of Rome destroyed his statues, defiled the Caraffa arms and broke into the prison of the Inquisition and freed the prisoners. (Duffy 2006, 216–217; Partner 1979, 45.)

⁷ The boy had been picked up in the street in Parma by Julius. The relationship was close, and as Duffy (2006, 215) puts it, “the charitably disposed told themselves the boy might after all be simply his bastard son”.

The popes of the rest of the sixteenth century hovered between the two Pauls in character, policy and spirituality. Pius IV (1559–65) is best remembered for his administrative skills and overseeing the Council of Trent to its end. Amongst his nephews was Carlo Borromeo, the later Saint Carlo, who played a big role in implementing the decisions of the Council. Pius V (1566–72), on the other hand, was a man and a pope in the mould of Paul IV. An ex-inquisitor, he revived many of the policies of Paul IV, including strengthening the Inquisition and persecuting the Jews. Pius was a traditionalist, a strong enforcer of the decisions of the Council of Trent and an encourager of the Inquisition. He founded the Congregation of the Index, which controlled the index of forbidden books, and his persecution of the Jews matched Paul IV's. His attitude towards sexuality seems to have been especially strict: he imposed more severe punishments for sodomy and clerical contacts with women, expelled prostitutes from Rome and had to be talked out of making adultery a capital offence. (Collins 2009, 365–366.)

By 1572 much had changed in the Catholic Church and the Papal States. Military threats had subsided after a long, restless period: Spain held Italy in its power, and the Turkish forces that had threatened Europe for the best part of a century had been decisively beaten at the battle of Lepanto in 1571 by forces of the pope, Spain and Venice. The more liberal views within the Church had lost, and, as Collins (2009, 367) formulates it, “authority, centralisation, uniformity and control were in the ascendancy. Resistance to change and opposition to novelty became instinctive, leaving the Church apparently strengthened, but ill-adapted to face the intellectual changes that lay ahead in ‘the age of science’”.

Gregory XIII (1572–85), another of Palestrina's strong patrons, who was Pius's successor, was again a pope more in accordance with the model of Paul III. His name was immortalised in the calendar reform of 1582 when ten days were dropped, and the new Gregorian calendar with its new calculations for leap years replaced the old Julian calendar.⁸ Gregory had been a delegate at the last period of the Council of Trent and was dedicated to implementing its decrees. (O'Malley 2010, 213.) Gregory's influence was strongest in making Rome an educational centre: the former law professor founded the Gregorian University in 1572 and was a strong patron of the Jesuit institutions (Collegio Romano, Collegio Germanico, the English College). The architectural transformation of the city continued during Gregory's reign, and

⁸ The new calendar was adopted only slowly in the non-Catholic countries. For example, Britain and its colonies did not embrace it until 1752 and Greece only in 1923 (O'Malley 2010, 213).

new sanctuaries on early Roman Christian sites were the pope's special pride. (Duffy 2006, 218; O'Malley 2010, 214; Collins 2009, 373.)

As Duffy's idea of the dialectic nature of the Counter-Reformation papacy would suggest, the more worldly Gregory was succeeded by a stricter and more austere pope. Sixtus V (1585–90) was a protégé of Paul IV, a Franciscan friar and a respected theologian who despised the worldliness and lavishness of his predecessor. Sixtus seems to have had an energy probably matched in the sixteenth century only by the amazing warrior-pope Julius II (1503–13). Sixtus wanted to purge Rome of poor morals; he also waged war on street violence in the city and banditry in the *campagna*. He encouraged the Catholic heads of state to fight the Reformation with weapons. And above all, he systematically worked to weaken the power of the cardinals and strengthen papal supremacy. Sixtus restricted the number of cardinals to 70 and divided them into fifteen congregations, six of them concerned with affairs of the Papal States and nine with spiritual matters. By dividing the cardinals into congregations, Sixtus diminished the influence of the Cardinal Consistory, changing the role of cardinals from senators to high public servants. (Duffy 2006, 218–222.)

At the same time, Sixtus set about changing the face of the city in a way that Nicholas V, the great visionary of the fifteenth century, would have been proud of. Sixtus wanted Rome to reflect the spiritual magnificence of the papacy. He planned new roads to the major basilicas. He claimed Rome's pagan past for Christianity by crowning obelisks and columns with crosses, rebuilt the Lateran palace and oversaw the building of St. Peter's close to its completion. In addition Sixtus had the time to found the Vatican Press, have new aqueducts built, organise the draining of marshes, regulate food prices and encourage the wool and silk industries. Despite his ambitious building programs, Sixtus even managed to accumulate for the church the amazing sum of 5,000,000 ducats, which he left his successors for the defence of Rome. His only real failure seems to have been his own revision of the Latin bible, the Vulgate, which had to be retracted from circulation after his death in 1590. (Duffy 2006, 219–220; O'Malley 2010, 215–216.)

After the iron reign of Sixtus V, there followed two papacies cut short by premature deaths. The last important pope of the sixteenth century was Clement VIII (1592–1605). Clement's main contribution to foreign politics was coming to terms with the King of France, Henry IV. This development weakened the stronghold Spain had held over the papacy, but it came at a cost: Clement had to accept the Edict of Nantes, which granted tolerance to Protestants. Clement also

negotiated a peace treaty between France and Spain that led to the Peace of Vervins in 1598. (Duffy 2006, 226.) In his interior politics Clement continued the battle against banditry that Sixtus V had waged, as well as the building programme that emphasised Rome's Christian history (Collins 2009, 374). The darker side of Clement's reign is visible in the role that he played in the executions for heresy of the miller Domenico Scandella alias Menocchio in 1599 and the philosopher Giordano Bruno in 1600 (Ginzburg 2007, 218; Hale 1995, 474).

New orders and lay piety

The spirituality of Rome in the mid-1500s was not only a matter of dogmatic disputes on the curial or conciliar level, but was also a question of a rising lay piety. The monastic orders were perceived to be wealthy and avaricious, unable to meet the demands of a more spiritual priesthood. New lay confraternities gathered laity and clergy, citizens of all social classes and of both genders and provided a forum for new lay piety. (Collins 2009, 351; Cohen 2001, 67.) The new religious movements within the church emphasised personal experience and works of charity. The early Jesuits who arrived in Rome with Ignatius Loyola were a far cry from the watchdogs of dogma, the preachers of the faith in the New World or the organisers of education as they were later predominantly seen to be. Loyola and his company first and foremost formed a society that concentrated on man's personal relationship to God. Their initiation process bears similarities to psychotherapy, for example, in the sense that new members had to go through a four-week process called the Spiritual exercises under the spiritual guidance of a senior member who had himself, in turn, gone through them with a senior Jesuit. (O'Malley 1995, 37–50.)

For the Romans, the most visible role of the Jesuits was probably education. The early Jesuits were well-educated theologians and were given licence to teach theology and all other disciplines by Pope Paul III in the 1540s. The Collegio Romano was founded in 1551, Collegio Germanico a year later, the Collegio Hungarico and the English College in 1579. All the colleges were intended to produce well-educated priests to preach the faith both in the Catholic countries as well as Protestant lands and the New World. When the Seminario Romano was opened in 1565, it was all but natural that Pope Pius V placed it in the hands of the Jesuits. (see O'Malley 1995, 200–242.) Palestrina's ties to the institution were two-fold: he acted

as the music master of the seminary between 1566 and 1571, and his two elder sons were students at the seminary during the same period (Casimiri 1935, 17–19).

Rome's most beloved saint, Filippo Neri, in turn, continued an Italian tradition of charismatic preachers in the vein of Giacomo Savonarola who had brought Florence to its knees in the late fifteenth century with his sermons on imminent catastrophes unless the Florentines repent before God. Neri's message was softer and closer to the tradition of mysticism, but his delivery just as efficient.⁹ In addition to touching people with Neri's sermons, Neri's Congregation of the Oratory, a society of secular priests, reached out to a larger audience through music, especially *laude* in the vernacular (Ponnelle and Bordet 1937, 266–267). Palestrina's role in Neri's Congregation has been much discussed, but the evidence speaks more for an occasional connection rather than a regular one (see Bertini 1977).

Charitable work, such as the running of hospitals or refuges for orphans or ex-prostitutes, the accommodation of poor pilgrims, the caring for and freeing of prisoners, was an important activity of many of the numerous Roman confraternities. In addition, the confraternities encouraged their members to take part in weekly communion (the norm before 1550 was once a year), gather together to hold services and processions and regular prayer. Many of the confraternities used music as an important means to touch the religious emotions of their members and even to entice new members, and thus offered a dramatic increase in freelance work for musicians. Palestrina did freelance work for the three of Rome's largest confraternities, the Santissimo Crocefisso in San Marcello, Santissima Trinità and the Gonfalone. Many of these events were processions that played a major role in the life of the confraternities. Especially imposing were the processions of Holy Thursday and Corpus Christi. (O'Regan 1994, 556–557; Cohen 2001, 67.) A list of members shows that Palestrina was a member of the Santissima Trinità in 1578, but it is not clear whether this was regular membership or a technical requirement for wearing the confraternity's habit in the procession. (O'Regan 1994, 566).

Besides running most of the Roman hospitals, the confraternities played a major role in catering to a group of people who provided a steady flow of income for the city: the pilgrims. Especially in the sacred years (every 25 years), pilgrims flooded into the city to make their pilgrimage, visit the seven traditional places of worship and receive indulgences from the pope. The Holy year 1575 saw up to 400,000

⁹ Descriptions of Neri's moments of absence in company and the physical symptoms he sometimes experienced in mid-sermon (see Ponnelle 1937, 115–116) seem indicative of epileptic seizures.

pilgrims visit Rome and the year 1600 somewhere between 500,000 and a million visitors (Delumeau 1957, 172; Hanlon 2000, 143). In 1575, the Trinità de' Pellegrini alone gave shelter to almost 145,000 pilgrims, distributed over 350,000 meals and took care of 21,000 convalescents (Ponnelle 1937, 325). The pilgrims are certainly one explanation for Rome's numerous hotels: in the late sixteenth century Rome had the most hotels per capita of any European city (Delumeau 1957, 137). The pilgrims added to the golden age of Roman piety in which the number of clerics rose substantially, new churches were built and confraternities grew in membership and stature (Hanlon 2000, 130–132).

When discussing the theological climate of Rome, it is important to understand that religion, faith and theological language were very much part of the life of everyman. A good comparison might be the way the language of psychology has become part of the way people express themselves in the western world. This language is ubiquitous and a means of organising thoughts and events into understandable forms, much as the language of theology penetrated the culture of the sixteenth century. A high-end example of a layman's theological thinking is Michelangelo's work in the Sistine Chapel: if Graham-Dixon (2009) is correct in his analysis of the paintings, Michelangelo's grasp of theology was striking by modern standards. Michelangelo's work in the Sistine Chapel certainly reflects the shift in theology from the fifteenth-century emphasis on creation and God as the master architect to Christocentric devotion and salvation of the soul (Burke 2000, 186–187).

On another level, religion was penetrated by magical thinking. Miracles were still ordinary in the late sixteenth century, and the veneration of saints was a fundamental part of everyday life (Hanlon 2000, 116). Relics were the object of passionate adoration and pictures of saints and the Holy Virgin were believed to have magical powers.¹⁰ According to Burckhardt (2008, 296), the devotion to relics gave way to adoration of the Virgin Mary in the sixteenth century. Both this shift and

¹⁰ St. Sebastian and St. Rocco were believed to be protectors against the plague, which in part explains their popularity as subjects for works of art (Burke 2000, 167). Many of the saints had specific functions: Saint Ivo protected lawyers, Saint Nicholas, sailors, Saint Margaret, childbirth, and Saint Christoph, travellers (Cohen 2001, 103). On the other hand, special materials, such as coral, provided protections against diseases (Currie 2006, 61).

the magical power of paintings are visible in the choices of subjects of the art works preserved from the Renaissance.¹¹

Respect for the magical was not limited to religion. Astrology was an essential part of the world-view of Renaissance man. The seven planets reflected the seven heavens and influenced the seven days of the week and the seven parts of the human body. With death and catastrophe never too far away, fate, *fortuna*, dictated the life of the individual, while the study of the stars helped to foresee the future and avoid days of ill fortune. Paul III (1534–49) is claimed never to have held a consistory without the help of astrologers in settling the time of a meeting. Other means of cheating fate were alchemy, magic and witchcraft, all of which feature in the literature of the time. (Burckhardt 2008, 310–311; Burke 2000, 183–185, 187–192.)

The theology of the Counter-Reformation was more systematic and its application was controlled more strictly than the theology of the early sixteenth century. The emphasis moved from creation and the intrinsic value of man to the final judgement and the need for God's grace in the salvation of the soul. As a reflection of God's magnitude, the Church and its teachings were to be obeyed without question. Doctrine was redefined by both the Catholic Church and the new Protestant movements, and rational elements replaced many magical elements. The effects of the new thinking spread only slowly, but the foundations had been laid. (Hale 1995, 471.)

A new, growing world challenged traditional world-views. Ptolomaic maps with Jerusalem as their centre were replaced by maps with new cartographical projections and aided in understanding the geographical space in which sixteenth-century man lived. At the same time the discovery of the Americas was making itself felt both through the riches imported from the lands, as well as through new knowledge of foreign cultures and lands. It might not be a coincidence that the universe was expanding outwards during the same time: Nicholas Copernicus, Tycho Brahe and Johannes Kepler were all laying the foundations of modern astronomy during the sixteenth century. (Hale 1995, 15–27, 532–533, 569 –573.)

¹¹ Burke's (2000, 165–167) analysis of the sacred subjects of 99 preserved Italian paintings from 1480 to 1539 features 53 Marian paintings, 26 with Christ as their subject and 20 paintings of saints. The dominant saints are St. John the Baptist, St. Sebastian, St. Francis and St. Catherine of Alexandria. It is interesting to note that the disposition of subjects in Palestrina's first five books of motets approximately half a century later is very similar: of roughly 170 motets, 32 are Marian motets, 32 are dedicated to saints (St. Peter, St. Paul, St. John the Baptist and St. Andrew being the most common) and approximately 30 have Christ as their subject (see Bianchi 1995, 607–655).

A new medium made spreading new ideas easier and quicker than ever before. Printing had spread to all of Europe and Italy had become one of its centres: the first Italian press was founded in 1465. Around the year 1500 there were 73 presses in Italy, while Germany had 51, France 39 and Spain 24 (Hale 1995, 6; Hanlon 2000, 43). Hale (1995, 274) estimates that between Gutenberg's first press in the mid-fifteenth century and the year 1500, approximately 28,000 editions had been printed. For the first time, books were available to the larger public: a pamphlet of twenty pages cost only as much as a loaf of bread and a New Testament cost a labourer's daily earnings in France in the 1530s. During the sixteenth century reading became a popular pastime. Especially popular were devotional books and guidebooks that might educate the reader in foreign languages and lands, refine them in civil manners or offer guidance for artists or the recently married. As books became more and more common, such self-evident features of modern life such as public libraries and bookshelves appeared on the scene in cities. (Hale 1995, 159, 181, 274–275, 301, 366, 439; Cohen 2001, 129.)

Although the new visions of the world found in new publications did not supplant the traditional God-centred world-view for everyman, many adaptations of the new scientific thinking did play a role in everyday life. The economic adaptations of mathematics made Arabic numerals, double-ledger bookkeeping, loans, maritime insurance and letters of exchange part of the financial world of the sixteenth century. Autopsies and the study of anatomy allowed medicine to take a major step forward. Mechanical clocks became more and more common and changed the way men construed time.¹² In the visual arts, pictorial perspective owed a great deal to mathematics and, along with better and more common mirrors, played its part in changing the way men and women saw themselves. (Burke 2000, 182–183; Hale 1995, 546–549; Hanlon 2000, 43.)

It is worth pointing out that also the dissemination of music went through a radical sea-change with the advent of music printing. Italy, and especially Venice, was the birthplace of music printing and the most powerful centre of music publishing in the sixteenth century. According to Bernstein (2007, 232), there are almost 4,000 surviving Venetian music editions from the sixteenth century, a figure unparalleled in Europe. Although the majority of these editions were collections of madrigals, even sacred polyphony could command a much larger audience than

¹² Although mechanical clocks increased the awareness of the hours, lesser units of time were not yet commonly used. Instead of minutes a sixteenth-century Roman might have referred to the length of a prayer, for example an Ave Maria or a Miserere. (Cohen 2001, 165–168.)

before the advent of music printing. As Taruskin (2010, 694) puts it: “music travelled faster, farther, and in greater volume than before”. Palestrina went to great pains to ensure the publication of his sacred works. Although his central motivation seems not have been so much a broad accessibility of his works as securing his position in Rome, the fact that so many of Palestrina’s works appeared in print during his lifetime certainly played a role in ensuring his later fame. (Bernstein 2007, 232–234.)

The Romans

Sixteenth-century Rome was more than the capital of the Catholic Church: it was one of the major European urban centres. When Palestrina began his professional career in 1551, Rome had already recovered from the Sack of 1527 and was growing quickly. With approximately 45,000 inhabitants, Rome was still only narrowly amongst the ten biggest cities in Italy. Naples and Venice had populations three to four times greater than Rome. The eternal city was on par with cities like Verona, Mantua and Brescia (Burke 2000, 226). On a European scale, however, Rome was a major city: Burke (2000, 226) estimates that there were no more than 20 towns with a population of more than 25,000. The latter half of the sixteenth century was a time of growth for Rome: by the time of Palestrina’s death in 1594, the population of Rome had more than doubled from 1551 (Hanlon 2000, 33).¹³

The most accurate information on the Roman population comes from the pre-Sack census of 1526–27. According to the census, the population of Rome was 53,987 inhabitants who lived in 9,324 houses. The census gives demographical data for only some of the inhabitants, but it can be assumed that these are fairly representative of the whole. Nationality is given in the case of 3,495 heads of households. Of these, fewer than a fifth were from Rome or its vicinity. Almost two-thirds were from other parts of Italy and one-fifth was non-Italian. Of the last group, the largest denominations were from Spain, France and Germany. (Delumeau 1957, 199.) According to the census, the majority of the population (63%) lived in the

¹³ The growth of Rome’s population was mirrored on a pan-Italian scale. The Black Death of 1347 killed up to half of the population in the bigger cities, and Italy’s population dropped by three million during the fourteenth century to approximately eight million. By 1600 the Italian population had risen to over thirteen million. From being sparsely populated in 1400, Italy had gone to being overly full two centuries later. (Cohen 2001, 7.)

seven quarters inside the loop of the Tiber River. The census also reveals the professions of 3,177 inhabitants. Amongst these, tailors, hotel- and inn-keepers, as well as construction business professionals predominated. (Delumeau 1957, 371–372.)

The Sack of 1527 decimated the Roman population, and the flood of 1530, as well as the bad harvests of 1533 and 1538–39, furthered the decline. In 1530, the population was approximately 30,000; roughly 45,000 in 1545; and 50,000 in 1560. (Partner 1979, 82–83.) Yet at the end of the sixteenth century, the population had risen to approximately 100,000. This growth came predominantly from the Roman *campagna*, which was plagued by high taxation, famine, epidemics, malaria, bandits and bad harvests. (Delumeau 1957, 220, 281.) After the peace treaty of Cateau-Cambrésis between the French and the Spanish in 1559, which ended the wars between the two opponents in Italy, funds were freed from warring to urban development. The great construction projects of the latter part of the sixteenth century provided employment for the new city-dwellers. (Partner 1979, 83.)

The most spectacular element of this building boom was the construction of new churches and palaces. According to Delumeau (1957, 358), 54 Roman churches were built or completely renovated during the sixteenth century, in addition to approximately 60 palaces and 20 aristocratic villas. It is fair to say, as Delumeau (1957, 223–228) states, that no other European city changed as much as Rome in the sixteenth century. An idea of the number of workers needed for such results can be gleaned from Delumeau's (1957, 366) report of 800 workers toiling day and night on St. Peter's cupola in 1589–90.

Economy

The Italian and Roman economies of the latter half of the sixteenth century were buoyant. Riches poured in from the recently discovered New World to Europe, and a great deal of the trade ran through the Mediterranean. Italy was the main producer of luxury articles in Europe, and Italian artisans were held in high esteem. Rome's typical industries were luxury and service industries that served above all the papal court and visitors to the holy city. Jewellers, silversmiths and painters provided the curia with luxury items, bankers ran the finances of the papacy, innkeepers provided accommodation for the pilgrims and other visitors to the city, and building

professionals fulfilled the demands of the pope, his cardinals and other well-to-do Romans. After the peace of Cateau-Cambésis in 1559, the Spanish held dominion over most of Italy, and the last four decades of the century were mainly peaceful. Peace, almost frenetic construction, silver from the Americas and vast numbers of pilgrims and tourists brought considerable new wealth to Rome. (Partner 1979, 47–48; Hanlon 2000, 76–101.)

Despite these riches, the Roman economy of the latter half of the sixteenth century seems to have been based on loans: everyone was in debt. This included the papacy, the richest baronial families and the cardinals. According to Delumeau (1959, 495–498), a staggering number of Romans (5,942) were imprisoned for debts between January 1582 and January 1583. This would have been approximately six percent of the population of the city! One of the confraternities, the *Compagnie della Carità*, specialised in freeing prisoners incarcerated for debts.

The main reasons for the Romans' high debts were the rise in the cost of living and an economy built on loans, owing to a chronic shortage of coins, the only form of cash (Cohen 2001, 266). Both factors are visible on both the macro- and micro-economic levels. The ambitious urban development of Rome, the new churches, as well as the papal bureaucracy did not come without costs for the papacy. Sixtus V used over a million scudi on construction projects during his papacy; and the building of St. Peter's had cost over a million scudi by 1585. The papal expenditures were 1.3 million scudi in 1576 and 1.4 million in 1590 (Delumeau 1957, 758).¹⁴ Especially costly were the wars: Paul IV's war against the Spanish forces in 1556–57 cost the papacy 1.5 million scudi, and the war against the Turks in 1570–73 in turn, 335,000 scudi (Delumeau 1959, 761).

For an ordinary Roman, the growth of the city and the accumulation of wealth meant more work, new housing and better infrastructure. At the same time, economic growth and the flow of silver from South America resulted in an annual inflation of four to five per cent. Prices rose sharply during the last decades of the sixteenth century, and in Rome this rise was higher than in other major Italian cities. If the index for essential products like wheat, oil, firewood and meat was 100 in 1570, it was almost 127 in the 1590s. Between 1570 and 1609 the price of wheat rose almost 80 per cent and the price of oil, 50 per cent. Fluctuations in the price of wheat reflected its availability: years of poor harvests and banditry could almost

¹⁴ The upkeep of the Papal Chapel, which included not only the Papal choir but also the entire department necessary for worship in the papal palace, cost the papacy 10,000 scudi in 1570. Even after cuts in the 1580s, the running of the chapel still required 8,400 scudi in 1590. (Delumeau 1959, 758)

double the price of the cereal that was a central element of the Roman diet. (Hanlon 2000, 87; Delumeau 1959, 625, 743, 747.)

The distribution of wealth was by no means even. In fact, the distance between rich and poor only grew during the sixteenth century. This happened not just economically, but also physically: only rich families could afford the carriages that became a mark of wealth and set the rich apart from other Romans. Other marks of wealth were palaces and immense dowries. At the other end of the scale, the rise in the cost of living played an important part in the rise in the number of beggars in the city, and the problem was aggravated by the growing number of peasants moving into Rome from the *campagna*, a region afflicted with banditry, poor harvests and steep taxation. (Delumeau 1957, 443–446; Partner 1979, 73, 97.)

Social classes

According to Burke (2000, 194), sixteenth-century Italians were more aware of their social status than previous generations had been. The medieval division of men into three classes (soldier, priest and farmer) had become outdated by the urbanisation of Italy. With nobles moving into cities from their castles the different classes came into more contact with each other, and the new middle class modelled itself on the customs and ideals of the nobles (Burckhardt 2008, 217–218). This contact was made all the more clear by the fact that, as a rule, the different classes were mixed throughout Rome. Many of the finest palaces were erected in traditional worker's quarters. (Partner 1979, 84.) Burke (2000, 194) suggests that the medieval class division was replaced by a division into rich, middle and poor, noble and non-noble, citizen and non-citizen or guild member and non-member.

More than social classes, Italians identified themselves and were defined as members of a family. Families were patriarchal, and the head of the family, the *capo*, was often in charge of 20 to 30 family members. The ideal was a big family in the mould of the noble families in their palazzo. Men often married late, and marriage was seen as an arrangement between two families.¹⁵ The rise of one member of the family to clerical status, for example, raised the social status of the whole family.

¹⁵ The average age for marriage for women in the sixteenth century was between seventeen and twenty-five and for men, between twenty-five and thirty-two. City-dwellers tended to marry later than people in the countryside; upper-class men married considerably later than men from the lower classes. (Cohen 2001, 202.) Palestrina's marriage at twenty-one or twenty-two made him a young bridegroom.

(Hanlon 2000, 23–25.) Although movement between social classes was not easy, it was possible.

Education rarely helped social ascent. Until the late sixteenth century, schooling was reserved mainly for boys, and only girls from the richest families received an education through private tutors or in convents. Most boys, however, did receive some schooling, either in schools run by the Church, the city or independent teachers. The ground rule was that the lower the social standing, the less schooling was seen to be necessary. For the middle classes, the Italian school paved the way to a life in commerce: it taught its students reading and writing in their mother tongue and practical mathematics. The Latin school, on the other hand, prepared the sons of the higher classes for studies at university, where tuition was in Latin. The Latin school taught its pupils a refined literary Latin needed for correspondence and elocution, both skills highly valued in the courts of the princes and the Church. (Cohen 2001, 135–140; Brown 2006, 141–142.)

The educational situation changed radically in the second half of the sixteenth century. The new orders, especially the Jesuits, ran schools that opened up ecclesiastical careers for young men, and not only from the privileged families. Palestrina's two older sons, Rodolfo and Angelo, received a musical as well as a general education at the Seminario Romano, where their father worked as a music master. Palestrina's youngest son, Iginio, seems to have had the longest education of the Pierluigi boys, as he apparently held a degree in law, though no documents about Iginio's education exist. (Bianchi 1995, 101, 143, 192.)

It was not only birth and education that placed a sixteenth-century man in society: he could rise above his birth if he was blessed with *virtù*, a nobility of spirit and action, which often referred to a special skill or capacity. This *virtù* brought fame on not only the man himself, but also on his family and potential patrons. In their quest for magnificence, princes, cardinals and popes sought to surround themselves with men of brilliance, whether their special talent was for the arts, letters or science. This saw the social status of artists rise considerably during the sixteenth century and men like Michelangelo were sought after by the mightiest of patrons and accepted as men to sit at their tables. (Burke 2000, 76–83, 198–199; Hanlon 2000, 38, 44; Aronberg Lavin 2005, 115, 139, 146, 185, 191.) Musicians were seldom afforded the same kind of social status as the best-known writers or visual artists, but special skills in composition or performance could open doors to the halls of the mightiest of men.

Yet in a time of discoveries of far-away lands, books on strange cultures, maps of Europe and the world and of urbanisation, parochialism was still the reality for most sixteenth-century Italians. As Hale (1995, 87) points out, most men and women rarely travelled more than twenty kilometres from their homes. *Campanilismo*, derived from the word *campanile* for bell tower, describes the life of the majority: their lives were led from birth to death within sight of the bell tower of the local church. Palestrina was a man whose works appeared in print as far away as England and Germany during his lifetime; he was a man who negotiated for positions in Mantua and Vienna and dedicated a collection to King Philip II of Spain. Yet Palestrina apparently never travelled further than Loreto. The axis of his life was between Palestrina and Rome. (Hale 1995, 87–88; Bianchi 1995, 167, 221; Marvin 2002, 1–10; O’Regan 1994, 553, 564.)

Effects on musical practices

Knowing exactly how the political, religious or socio-economic fluctuations affected the performance of liturgical music in Rome in the latter half of the sixteenth century is no longer possible. However, some clear consequences are indicated.

The peace and prosperity Rome enjoyed after the peace of Cateau-Cambrésis in 1559 played a major role in changing musical practices. One definite change brought about through prosperity was the building of new churches. Compared to the older churches, these new houses of worship were spacious and uncluttered by relics, tombs and statues. These new spaces combined with a rise in lay piety and the strengthening role of the confraternities created the need for a new style of liturgical music. The new religious movements and confraternities saw music as a way to attract both potential patrons and lay members. Music was still tied to the liturgy, but there was definitely a more pronounced emphasis on performance.

These new demands were met in several ways. Firstly, it seems apparent that the polychoral style that had flourished in Venice for several decades served these new demands exquisitely. Bigger spaces were easier to fill with choirs spread around the church. The contrapuntal finesse of the music was less important than a clear surface and chordality. Instruments gave the music a power difficult to achieve with voices only. Secondly, there is a clear gradual development from traditional imitative compositional techniques to a more homophonic style even in non-polychoral music.

The centrality and clarity of the text served both the demands of the post-conciliar Church and the lay piety movement. In part this meant streamlining the polyphonic repertory; in part, it required new forms suitable for less informal ecclesiastical use, such as the *laude*. The performances of polyphonic pieces by soloists and accompanying instruments, most often the organ, gradually created a musical form of its own that blossomed by the end of the sixteenth century. It is not unreasonable to assume that these changes could also have changed the preferred manner of singing: on the one hand, sonority in both solo work and singing with instruments would have been in demand, and on the other, the essential skill of ornamenting the solo lines would have gained more importance.

The growing affluence in Rome meant that there were more possibilities for freelance work for musicians, and musicians became more visible, which would in all likelihood have made their status higher. Instrumentalists featured more frequently in performances of liturgical music and combinations of instrumentalists and singers became almost the norm in the major feasts of the confraternities and gradually also in the chapels, with the exception of music-making in the papal palace, which stayed true to its *a cappella* tradition. It is also worth noting that in a town as small as sixteenth-century Rome, the musicians came into constant contact with each other. And although the influx of musicians especially from north of the Alps diminished considerably after 1550, Roman chapels were a melting pot of musicians from different parts of Italy and Europe. This was important, as hearing and performing music seems to have been the primary manner of dissemination, despite the growing market in printed music.

The liturgical renewals that followed the Council of Trent were influential in creating the need for new liturgical music that conformed to the new texts and liturgy. This meant an upheaval in the conservative repertory of the Roman chapel choirs and provided an opening for the new generation, which included Palestrina. Although much of the new liturgical music was still fairly conservative in nature, there was a marked change from complex imitative structures to more homophonic music. The demand for texts to be intelligible in liturgical music played a role in this development.

In sum, religious, ecclesiastical, political and economic factors affected both the music that was composed in the latter half of the sixteenth century and the manner in which it was performed. This study is focused on the latter, but it will also to some extent reflect the changes in liturgical music. Before moving on to an analysis of the

different elements of performance practice relevant to Palestrina's sacred polyphony, we will take a look at the institutions at which Palestrina worked to form a clearer picture of the context of his work and his compositions.

Palestrina's Timeline

1525	Born in Rome or Palestrina (possibly in early 1526)
1537	Boy chorister in Rome
1544	Organist and teacher of choristers at San Agapito, Palestrina
1547	Marriage to Lucrezia Gori
1549/1550	Son Rodolfo born
1551	Son Angelo born
1551	Move to Rome: <i>magister cantorum</i> of St. Peter's choir, Rome
1554	First publication: <i>First Book of Masses</i>
1555	Singer in the Papal choir; expulsion September 1555 <i>Maestro di cappella</i> of San Giovanni in Laterano
1557	Receives the rights of a Roman citizen
1558	Son Iginio born
1561	Maestro of Santa Maria Maggiore
1564	Maestro of Cardinal d'Este's musicians
1565	Title of pontifical composer, <i>modulator pontificus</i>
1566	Maestro of the Seminario Romano
1567–71	Maestro of Cardinal d'Este's musicians
1568–87	Correspondence with Duke Guglielmo of Mantua
1569	Buys house on Via dei Giubbonari, Rome
1571	Maestro di cappella of St. Peter's
1572	Son Rodolfo dies
1574	Buys house on the Piazza dei Scarpellini, Rome
1575	Son Angelo dies
1577	Undertakes chant reform
1580	Wife Lucrezia dies; Palestrina plans to enter the priesthood
1581	Marries widow Victoria Dormoli; active role in her fur and wine businesses
1584	Founding of La Confraternita dei musici di Roma
1580s–90s	Flurry of publications
1593	Plans a move to Palestrina as <i>maestro di cappella</i> at San Agapito
1594	Dies on February 2

III Palestrina at Work

Palestrina was only around 25 years old in 1551 when he was appointed music master of the boys (*magister puerorum*) of the choir of St. Peter's, Cappella Giulia. From 1551 Palestrina worked in Rome until his death in 1594 (see Palestrina's Time Line at the end of Chapter Two). He served at four of the most prestigious chapels, a theological seminary and in the private service of a cardinal. At his death, Palestrina had worked in Rome for 43 years and was considered the most important figure in its musical life. The entry in the Papal Chapel diary on his day of death, the second of February 1594, reads:

“On this morning master Giovanni Pier Loisci, an excellent musician and our companion and the maestro of St. Peter's passed from this life to a better one. 24 hours later he was carried into the said church, escorted not only by all the musicians of Rome, but also by a great crowd.”¹

Palestrina's main tasks at the chapels were to train the boy choristers and make sure the musical liturgical apparatus of the chapels ran smoothly. Although Palestrina was not always under obligation to compose for the chapels he worked for, it is apparent he did so and was the main reason for his growing fame during his time in Rome. An analysis of these musical institutions will shed light on the kinds of ensembles for which Palestrina composed, as well as on the characteristics and idiosyncrasies of Roman liturgical musical practices.

Most of the institutions Palestrina worked for are well documented. This is especially clear in the case of the Papal Chapel, which has been under close scholarly scrutiny for over a century, ever since Franz Xavier Haberl's (1888a; 1888b) classical studies of the chapel's history and its repertory. Palestrina's time at the Cappella Giulia (1551–54 and 1571–94) has also been thoroughly studied mainly by Italian scholars, while the chapels of Santa Maria Maggiore and San Giovanni in Laterano have received less attention, as have Palestrina's work at the Seminario Romano and in the service of Cardinal d'Este, although the main facts are easily available.

The availability of information on the Papal Chapel and the Cappella Giulia had until fairly recently led to these institutions and their choirs being thought of as

¹ *Questa mattina il sig. Giovanni Pier Loisci eccelentissimo musico nostro Compagno et mastro di Cappella in san Pietro passò di questa a miglior vita et a 24 hore fu portato in detta chiesa accompagnato non solo da tutti li musici di Roma, ma anco una moltitudine de populo...*(Frey 1974, 456).

typical of late sixteenth-century Rome.² Studies of the other Roman chapels in recent decades, for example, by Lionnet (1987), Dixon (1994), O'Regan (1994; 1995) and Lightbourne (2004), have shown that most sixteenth-century polyphony in Rome would have been sung by smaller groups than the lists of singers in the largest institutions would lead one to assume. This view is confirmed by a closer look at the institutions for which Palestrina worked.

This closer look not only reveals the diversity of the performing bodies but also gives us a glimpse into the context of Palestrina's sacred music, both on a liturgical and a practical level. It also reveals the conservative nature of the main Roman institutions and thus sheds light on the demands placed on a composer and the ideals he would have grown up with. Closer acquaintance with the practices of the chapels also gives us an idea of the daily schedules of the singers, the repertory they sang, the instruments the choirs had at their disposal and the physical surroundings in which they performed. All these features give us a context into which we can place Palestrina's music and its performance in Rome in the latter half of the sixteenth century.

The *schola cantorum* and the Papal Chapel

To understand the character of the Roman chapels, it is worth taking a brief look at their history. The most prestigious choir was the Papal choir, which was the pope's own liturgical choir. The older Roman choirs suffered from neglect during the papacy's absence from Rome, and the choir of St. Peter's remained in a miserable state until the mid-fifteenth century. The choir of St. Peter's blossomed in the sixteenth century, as it was given more means, as well as an important educational role. These two were to a great extent the role models on which the other major Roman chapels were organised. They also attracted the best singers and composers, and their repertory set an example for the other chapels.

² One of the first scholars to focus in on this error was Lionnet (1987, 3), who pointed out that the typical early seventeenth-century Roman chapel consisted of four sopranos, two altos, two tenors and two basses. More recent literature (Dixon 1994; O'Regan 1994a & 1995; Lightbourne 2004) has shown that these figures correspond well with the amount of singers of most Roman chapels in the latter half of the sixteenth century.

All the Roman chapels can be thought to have been modelled on two paragons: the Roman *schola cantorum* and the Papal choir. The *schola* dates back to first half of the first millennium, while the Papal choir was born during the Avignon papacy in the early fourteenth century.

According to Otten (1912), as early as the papacy of Silvester I (314–35), there was a group of singers called the *schola cantorum*. The first pope to institutionalise the position of the singers was Hilarius II (461–68), who apparently housed his singers within the papal palace at San Giovanni in Laterano (Haberl 1888a, 3). During the reign of Gregory the Great (reigned 590–604), besides being a liturgical institution, the *schola* also became a school for boys and young men and supplied singers for the two main Roman churches, St. Peter's and San Giovanni in Laterano (Haberl 1888a, 4). The *schola* of Gregorius was a cloister-like hierarchical society of monks, boys and lay clerks (*clericos seculares*).

By the tenth century, along with being a school for singers, the *schola* was clearly the pope's liturgical choir and had been moved to the former Benedictine cloisters at St. Peter's. A monastic lifestyle remained an integral part of the *schola's* character until the Avignon papacy. (Haberl 1888a, 5, 8–9, 16.) The only existing information on the size of the *schola cantorum* can be found in a document between the *schola* and San Giovanni in Laterano from 1232. The contract mentions that the *primicerius* or the leader of the *schola* was to take part in the festivities of John the Baptist with ten singers. (Haberl 1888a, 14.) Haberl assumed that this meant the entire *schola*.

In addition to providing music for the papal services and training choristers, another objective of the *schola* was to oversee the purity of Gregorian chant. As early as the eighth century its singers were sent to what is now France and Switzerland to teach pure chant (1888a, 7). On the other hand, Haberl (1888a, 12) cites an eighth-century document that describes the Roman singers as being as skilled in organum as their French counterparts. Haberl (1888a, 13) suspects that the singers of the Roman *schola cantorum* mastered improvised counterpoint (*cantus super librum*) and the *faux bourdon* style, in which two voices move parallel to the melody. Reynolds (1995, 130) even believes that the *schola* might have been the first polyphonic ensemble in the Western church.

The Roman *schola cantorum* seems to have survived almost the entire Avignon papacy (1305–1378). It was, however, abolished by 1370, when Pope Urban V

transferred the funds allotted for the *schola*'s upkeep to the choir of San Giovanni in Laterano instead (Casimiri 1924, 197-199).

If the Roman *schola* had educational objectives, the personal choir of the Avignon popes, the *capella papale*, was founded solely as a ceremonial, liturgical ensemble. In his *Vitae Paparum Avionem*, Stephanus Baluzius (1928, 230, 233) mentions that Benedict XII had 12 singers to perform the daily canonical hours.³ These singers lived together and had no assignments other than to serve the pope. Reynolds (1984, 76) dates the birth of the *capella papale* to 1334 and sees it as a complementary ensemble to a larger choir (*la grande chapelle*) consisting mainly of French singers and founded earlier in the Avignon papacy (see also Otten 1912).

On the return of the papacy to Rome, it is not clear whether Gregory XI (1370–78) and Urban VI (1378–89) brought the entirety of the predominantly Franco-Flemish singers of the Papal choir with them. The fact that the choir of the first post-schismatic pope, Martin V (1417–31),⁴ consisted mainly of French and Flemish singers, suggests that the papal chorus of the Avignon popes travelled to Rome with the papacy. (Haberl 1888, 24.)

The *schola cantorum*'s long Roman tradition and the modern influences introduced by the Franco-Flemish singers of the Papal choir formed the basis of the Papal choir of the fifteenth and sixteenth centuries. Especially in the fifteenth century, there was a strong presence of French and Flemish singers at the Papal Chapel.⁵ With the change of the political tide at the turn of the sixteenth century, the Northern influence weakened, and Italian and Spanish singers became more prevalent in the choir.

Palestrina's time proper in the Papal Chapel proved to be much shorter than he would have expected when Pope Julius gave him a place in the choir early in 1555.

³ Haberl (1888a) refers to Baluzius on page 23.

⁴ After the election of Urban VI in 1378, many of the cardinals were quickly disillusioned by the whimsical pope. Ultimately, this led to the choice of a competing pope, Clement VII (1378–94). In the following decades, division ruled: for a time the church had three competing popes. Although competing popes are not at all rare in the history of the papacy (see, for example, List of Popes 1911), this period is serious enough to qualify as the Great Schism in the western church. The division finally ended in 1417 with the choice of Martin V. (Salembier 1912.)

⁵ Two of the greatest musicians of their times, Guillaume Dufay and Josquin des Prez were both members of the Papal choir in the fifteenth century: Dufay sang in the choir in the 1420s and 1430s and Josquin in the 1480s and 1490s (Dean 1988, 481-485; Roth 2004, 134, note 51; Rodin 2012, 5).

“On Sunday, 13th of January a new singer, Joannes de palestrina, was admitted by mandate of His Highness Julius without audition and according to the *motu proprio* we received, without the approval of the singers” (Haberl 1888, 94).⁶

The fact that Palestrina was named by papal fiat and avoided the audition would have irked the singers of the Papal choir, who normally had total say in the audition process (see Chapters II – IV of the 1545 Constitution, Haberl 1888a).⁷ Pope Julius died in March 1555 and was succeeded by Marcellus II whose papacy only lasted one month.⁸ His successor, Paul IV (1555-59), who, as Cardinal Carafa had organised and led the Italian Inquisition, enforced the rule on celibacy⁹ in the chapel and dismissed Palestrina and two other married singers in his *motu proprio* of July 30, 1555.¹⁰ As compensation, Palestrina received a monthly pension of 5 scudi, 87 baiocchi, almost two-thirds of the regular monthly wages of the papal singers. (Sherr 1994a, 628; Bianchi 1995, 61.)¹¹

The choir of St. Peter’s

When the papacy returned to Rome from Avignon in the late fourteenth century, the personal choir of the popes, the Papal choir (or Papal Chapel) provided music only for the canonical hours and masses of the papal palace, as well as the papal services in other Roman churches.¹² At the same time, the regular liturgical music of St.

⁶ *Dominica 13. Jan. fuit ad missus in nobum cantorem Joannes de palestrina de mandatu Smi. D. Julii absque ulo examine et secundum motum proprium, quod habebamus et absque consensu cantorum ingresus fuit.*

⁷ Perhaps repercussions of these sentiments were still felt in 1585 when a move to make Palestrina the permanent (musical) *maestro di cappella* of the choir was rebuffed by fairly harsh means (Bianchi 1995, 206-208). The practice of naming singers into the Papal choir by *motu proprio* certainly did not die out with this incident: Annibaldi (2011, 15–17) shows that during the seventeenth century over half of the singers actually bypassed the audition system thanks to papal intervention.

⁸ Marcellus is probably best known by the Palestrina mass that bears his name. Marcellus summoned the singers and reprimanded them for their choice of music and for not showing the right emotion in the Good Friday Mass. According to Pastor (1950, 305-306), this event left a lasting mark on Palestrina and the naming of his famous Mass (published in the II Book of Masses in 1567) was a sign of its importance.

⁹ Traditionally, the singers of the Papal Chapel were in Holy Orders. From around the turn of the sixteenth century singers who were laymen and even married singers had been accepted into the choir. (Sherr 1994a, 621, 628, note 30-31.)

¹⁰ The *motu proprio* also refers to poor voices (“*propter imbecillitatem vocem*”) as grounds for dismissal (Bianchi 1995, 61). The fact that Palestrina was appointed without audition might support the claim. On the other hand, as Ackermann (2005, 10) points out, the pension these singers were given seems fairly liberal if they were dismissed primarily because of poor skills. In any case, the main reason for dismissing these three was their marital status (Sherr 1994a, 621).

¹¹ In 1565, Palestrina’s pension from the Papal Chapel was raised to nine scudi and he received the title of *modulator pontificus*, pontifical composer, for supplying the chapel with compositions for its use (Ackermann, 2005, 9; Bianchi 1995, 93).

¹² The choir is known by many names. It has carried the name of the main chapel of the papal palace, the Cappella Sistina, since the late fifteenth century. For reasons of clarity, I will call it the Papal choir.

Peter's suffered from neglect. During the Great Schism (1378–1417), the singers at St. Peter's were Italian priests (Reynolds 1995, 17). On festive days, the choir was often reinforced with hired singers, especially, after the Schism, with singers from the Papal Chapel (Reynolds 1995, 24). With the unified papacy the choir of St. Peter's gradually began to grow, but during the whole of the fifteenth century, the size of the choir fluctuated according to how important each pope felt the choir to be.

In the early fifteenth century the canonical hours and masses were apparently mostly sung by the chaplains and a few hired singers, probably from the Papal choir, who would receive a meal in compensation for their work from the Chapter of St. Peter's (Reynolds 1995, 21). The reign of Nicholas V in the mid-1400s saw the choir grow in size, a new administration take form, the arrival of northern singers, and the singers started to receive regular pay for their services. In the jubilee year 1450, the choir consisted at best of 12 singers, yet a far cry from the three singers of 1448. (Reynolds 1995, 34–35, table 5.) Of great importance for the future of the choir was Nicholas's decision to grant the singers of St. Peter's the same priority to benefices that the papal singers enjoyed (Reynolds 1995, 39). Between 1455 and 1480 the choir grew and diminished according to the financial situation of the popes and natural catastrophes, such as flooding and the outbreak of the plague (Reynolds 1995, 46–47).¹³

In 1480, after enlarging the Papal choir, Pope Sixtus IV turned his attention to the services of St. Peter's. Sixtus granted the chapter the power to form a choir of ten singers to perform the liturgy in the same manner as in the Papal Chapels, i.e. to sing the daily services of the canonical hours and mass. It seems Sixtus's aims were to some extent met: in 1485 the choir had nine singers, in 1491 ten singers and in 1497 eight singers (D'Accone 1976, 606). The choir did not have an educational role except perhaps as a stepping stone into the Papal choir: fourteen singers moved from St. Peter's to the Papal Chapel between 1460 and 1490 (Reynolds 1995, table 9). Of the singers of this period, approximately one half were Italian, and the other half consisted of French, Flemish and German singers (Reynolds 1995, table 5). The high regard for the northern singers is apparent in their wages: not until the 1480s were the Italian singers paid the same salary as their foreign colleagues (Reynolds 1995, 55).

¹³ The Tolfa alum mines in the Papal States, which were opened in the 1460s, secured the papal treasury an estimated 100 000 ducats per annum. Part of this income went far in securing the papal patronage of music and the visual arts. (Reynolds 1995, 46–47.)

The choir of St. Peter's acquired a completely new status in 1513, when Pope Julius II founded the Cappella Giulia with the papal bull *In altissimo militantis Ecclesiae*. In addition to being the liturgical choir of St. Peter's, the choir became an educational institution. According to Julius's plans, the choir was to have twelve Italian boys in training.¹⁴ The aim was to reduce the dependency of the Roman choirs on Franco-Flemish and Spanish singers. Julius's numerical objective was actually never met during the sixteenth century: at best the number of boys reached seven in 1571. When Palestrina entered the service of the choir in 1551, there were four boys. (Rostirolla 1977, 105, 150–151; Reynolds 1989a, 79.)

Palestrina served the Cappella Giulia during two sojourns: between 1551 and 1555 and from 1571 to his death in 1594. He was first appointed to be the music master of the boy choristers (*magister puerorum*). We can also infer that the young musician was highly appreciated, as in January 1552 his title is *magister capellae*, referring to a stronger position in the organisation. (Rostirolla 1977, 112–114.)¹⁵ Palestrina returned to the chapel in 1571 at the death of the previous maestro Pietro Giovanni Animuccia (ca. 1520–1571) (Bianchi 1995, 133). In his second period, Palestrina not only took responsibility for the training of the boys and the smooth running of the musical-liturgical apparatus, but was also expected to write new music for the use of the chapel (Ordini 1600, 18).

The Papal Chapel and the Cappella Giulia set an example that was followed by the other major chapels. On the one hand, their primary task was to ensure that the canonical hours and mass were sung daily. But from the 1530s on, several Roman chapels followed the lead of the Cappella Giulia in training boy choristers. In these chapels, the boys either constituted the whole soprano group or sang with one or two male falsettists or castrati, while professional adult choristers sang the alto, tenor and bass voices.

¹⁴ As Reynolds (1995, 131–138) points out, there had been boys in the choir of St. Peter's even before the founding of the Cappella Giulia. The function of the new choir was specifically to train Italian boys so that the dependence on Franco-Flemish singers could be reduced. The singers from the North had, besides a superior training, more experience of singing polyphony as the liturgical use of polyphony was more common in the Franco-Flemish cathedrals (Reynolds 1995, 131–138).

¹⁵ In a description of Rome in the journal of a German pilgrim from 1554, Matthaues Rot (*Itinerarium romanicum anno Domini 1554*, quoted in Bianchi 1995, 53 and Pastor 1963, 293–294) praises the music of two churches: St. Peter's and San Giovanni in Laterano. St. Peter's was obviously in the hands of Palestrina; the maestro of San Giovanni in that year was Palestrina's illustrious contemporary, Orlande de Lassus (1530/32–1594) (Bianchi 1995, 53).

The chapels of San Giovanni in Laterano and Santa Maria Maggiore

When Palestrina was dismissed from the Papal choir in 1555, he found employment as the *maestro di cappella* of San Giovanni in Laterano. The oldest basilica in Christendom, San Giovanni was before the Avignon papacy served by the Roman *schola cantorum*, which had one of its two schools in the vicinity of the basilica. In 1370, the *schola* was abolished and its funds transferred to the upkeep of the choir of San Giovanni (Casimiri 1924, 197–199). The choir was remodelled on the structure of the Cappella Giulia in 1535. This meant that the choir was given a pedagogical role in addition to its liturgical responsibilities: boys were trained in music as well as in Italian and Latin in the same way as at the Cappella Giulia. The aim was to lessen the need for foreign (predominantly Flemish and Spanish) musicians on which the musical institutions of Rome were so heavily dependent. A papal *breve* from Pope Paul III (1534–49) in 1543 gave the choir sufficient financial means to organise itself on the lines of the Papal Chapel and the Cappella Giulia. (Reynolds 1989a, 68; Bianchi 1995, 65.)

In October 1555, when Palestrina joined San Giovanni in Laterano as *maestro di cappella*, the choir consisted of two altos, two tenors, two basses and three boy sopranos. The size of the choir seems to have been fairly constant throughout the sixteenth century: when Annibale Stabile (ca. 1535–1595) joined the chapel in 1575 as its maestro, the choir consisted of two boys, one adult soprano, two altos, two tenors and one bass (Lightbourne 2004, 273). It was the policy of the chapel to strengthen the choir with extra singers on the major feasts of the year: Holy Week, the processions of Saint Mark and Corpus Christi and the three feasts of special importance to the chapel, i.e. the feasts of the evangelist Saint John, Saint John the Baptist and the dedication of the basilica.¹⁶ (Simi Bonini 1991, 66–67.)

The chapel enjoyed a succession of fine *maestri di cappella*. Among Palestrina's predecessors were Rubino Mallapert (ca. 1535–38 and 1548–49), Paolo Animuccia (1550–52), Orlande de Lassus 1553 and Bernardhino Lupacchino (1553–55) (Reynolds 1989a, 69).

After leaving the Lateran basilica in 1560, Palestrina returned as maestro to the place where he received his musical training. Palestrina was one of the first

¹⁶ According to Lightbourne (2004, 274), in Stabile's time in the mid-1570s the typical amount of additional singers was two to three.

generation of Italian boys to be trained at the Santa Maria Maggiore, where he is listed as a boy chorister in 1537; the chapel had been organised as a training institute only that year. (Bianchi 1995, 14; Reynolds 1989a, 68.) At the Santa Maria Maggiore, Palestrina was preceded by Franco-Flemish maestri: Rubino Mallapert 1538–39; Robert 1540; Firmin Lebel 1540; and Adrien Valent 1553–61 (Reynolds 1989a, 68).¹⁷

The choir of the Santa Maria Maggiore was not as dependent on boy sopranos as San Giovanni in Laterano. According to Simi Bonini (1991, 76–78), between 1561 and 1563 the choir consisted of three adult sopranos (falsettists), three altos, two tenors and two basses, in addition to three to four boy sopranos. With the exception of the falsettists, these figures seem typical of the institution: in the 1590s the choir consisted of four boy sopranos and usually two altos, two tenors and two basses (Lightbourne 2004, 276–277).¹⁸ Both San Giovanni and Santa Maria in Laterano continually had organists on their pay roll (Simi Bonini 1991, 75, 78).

The Roman chapel choir: More guild than monastic institution

The singers in the chapels were professionals with a healthy confidence in their value.¹⁹ In the sixteenth century, the chapels still carried traces of the monastic societies they had been in the first millennium: they were close-knit units of mainly unmarried men, and many of the singers were ordained priests. But ultimately the choirs were more reminiscent of guilds, groups of professionals who knew their skills were in demand. Although there was no official musician's guild, the choirs of the Vatican were especially well organised and to a large degree ran themselves.²⁰

The duties and rights of the singers of the Papal choir and the Cappella Giulia are defined in two important documents: the Constitution of the Papal choir from 1545 and the *Ordini* of the Cappella Giulia from 1600. They describe the musical tasks of

¹⁷ The shift from northern maestri to native Italians is one defining characteristic of the Roman musical scene in the latter half of the sixteenth century. The are diverse reasons for this, the most important being political and educational: Spanish political dominion in Italy cut off the flow of Franco-Flemish musicians, and the generation of musicians trained by the Italian chapels came of age. (Reynolds 1989a, 68–72.)

¹⁸ Also the choir of Santa Maria Maggiore recruited enforcements on major festal days. Lightbourne (2004, 279) reports of up to eight extra singers and instrumentalists being hired in the 1590s.

¹⁹ O'Regan (1994, 553) estimates that up to the 1590s there were approximately 65 professional singers employed at one time by the Roman chapels.

²⁰ The society of musicians, La Confraternita dei musici di Roma, founded in 1584, was in theory a religious confraternity, but it took upon itself some social obligations that were typical of the guilds (see Summers 2006).

the singers in detail, as well as the procedures for almost every step of the singers' lives in the choir, from the audition process to death.²¹

One of the salient features of the Papal choir actually was its independence. Until 1586, the *primerius* of the chapel, with the title *maestro di cappella*, was an official of the papal curia, usually a bishop. The role of the *maestro di cappella* was, however, clearly defined, and the college of singers was responsible for practically all artistic and administrative matters: the singers elected the new choir members, meted out punishment for possible misdemeanours and decided on the distribution of benefices. The singers were chosen for life, which meant that the powers of the administrative *maestro di cappella* did not include the possibility of dismissing singers. (Sherr 2004, 188–193.) The position of *maestro di cappella* only passed into the hands of the singers in 1587, even though the singers opposed the reform.²²

Whereas the Papal Chapel only began electing a musician *maestro* in the 1580s, the Cappella Giulia had had one since 1513, when it started training boy choristers.²³ It seems that early in the sixteenth century, the role of the *maestro* was above all teaching music to the boy choristers. In time, composing music for the chapel, as well as the general responsibility for managing the liturgical music became integral elements of the *maestro's* duties.

Chapter 74 of the *Ordini* of the choir of St. Peter's from 1600 defines the tasks of the *maestro* in the following way:

...while it is impossible to give exact rules for his position, he shall occupy himself often in composing music and in teaching the boy choristers, as well as the scholar clerics. Above all, it is necessary, in order to maintain good order, for the *maestro* to be present. The more he is present, the better he fulfils his obligations and the divine cult can be served smoothly without the danger of errors or scandals, in the best of order. (*Ordini* 1600, 18.)²⁴

At the Papal Chapel, the musician *maestro* of the late sixteenth century was responsible above all for the musical activity of the college, as well as for discipline

²¹ The Latin text of the 1545 Constitution is available in Haberl 1888 and the *Ordini* as an appendix of the Note d'Archivio per la storia musicale. Nuova serie, 4, 1986 (see also Rostirolla 1986).

²² The singers objected that the *maestro* was traditionally not a specialist in music, nor did he need to be one (Sherr 1978, 91). Conservative attitudes seem to have been an important characteristic of the college of singers. This in itself would not have been a novelty; Dix (2007, 365–366) notes that the Roman schola of the eighth century was conservative in its choice of music for the Mass.

²³ Among Palestrina's predecessors at St. Peter's were Jacob Arcadelt, Robin Mallapert, Domenico Maria Ferrabosco and Francois Roussel (Bianchi 1995, 36).

²⁴ ...se bene non si può dare certa regola nel suo servitio, dovendosi egli occupar molte volte nel far compositioni, & di continuo nell' insegnar così alli cantorini, come gli à gli altri Chierici scolari; tuttavia essendo necessario, che per il buon governo delle cose, il capo vi se trovi presente; però se gli raccorda, che quanto più spesso egli assisterà con la sua presenza in Choro, tanto più sodisfarà all'obbligo suo, & tanto maggior edificatione darà di se, & il culto Divino si potrà tanto più render sicuro di camminare senza pericolo d'errori, & scandali, & con miglior ordine.

within the college. He also selected the music for the papal ceremonies.²⁵ Other administrative positions in the choir included the dean (*decano*), who was the highest administrative official; the *abbas* (or *camerlengo*) responsible for finance; and the *puntatore* in charge of fining the singers for breaches against the rules spelled out in the choir's constitution.²⁶ (Lionnet 1987, 4.)

The collegiate (or guild-like) nature of the Papal choir is also indicated by the emphasis on seniority. This is apparent, for example, in the chapters of the Constitution on the ceremony performed after a new singer had given his vow, on carrying choirbooks to and from the pedestal and on paying respects to a deceased singer. Lionnet (1987, 5) adds seating plans, the responsibility of the senior singer of each vocal part for his colleagues and the hierarchy by which the next most senior member was always next in line in case of the most senior being absent.

The singers of the Papal choir were in many ways privileged amongst the professional singers of the Roman chapels. Firstly, their wages were superior to the singers of the other choirs: the papal singers' monthly wages in the latter half of the sixteenth century were nine scudi. The singers of the Cappella Giulia were paid four scudi before 1578, when their wages rose to seven scudi per month. The singers of San Giovanni in Laterano had to make do with four scudi per month. (Sherr 1982, 250; Rostirolla 1977, 131; Simi Bonini 1991, 73–75.)²⁷

Secondly, the papal singers had the best chances for gratuities. The singers were compensated beyond their monthly wages for extraordinary services, such as the creation or funeral of a cardinal, as well as services during the greatest feasts of the church year. In 1594, each singer received an extra four scudi d'oro for services during Christmas time and two for Easter services (Frey 1974). Annually, the singers could expect to receive between 10 and 20 scudi in gratuities. The singers of St. Peter's were also fairly well off in gratuities: the diaries of the Cappella Giulia show, for example, that the bass singer Francesco Brino received 17 scudi in gratuities in 1571 (Rostirolla 1977, 250, document 44).

Thirdly, the singers of the Papal Chapel had a wealth of benefices at their disposal. Benefices (from the Latin *beneficium*) were clerical positions funded by local parishes or cloisters that the pope could donate to a favoured cleric, bureaucrat

²⁵ The *altus hebdomarius* was responsible for choosing the polyphony to be sung in the other services (Sherr 1987, 452). The *altus* refers to an alto singer and the *hebdomarius* to the position being changed each week ("weekly alto" or "alto of the week").

²⁶ From 1535 the *puntatore* kept record of these fines (*Libri dei punti*). These records of fines gradually became the Diary of the choir (*Diarii Sistini*). (Lionnet 1987, 4.)

²⁷ O'Regan (1994, 568) estimates the basic cost of living in Rome in the 1580s to have been approximately three scudi per month.

or singer. The recipient could then hold the position *in commendam* by hiring a substitute to do the work expected. The substitute was then paid only a part of the income secured through benefice, and the recipient thereby supplemented his normal wages. (For more detailed descriptions of the *beneficium* system, see Reynolds 1984; Starr 1992; Starr 2004.) The *praxis beneficorum* has a strong tie with the history of the Papal choir: as early as 1444, Pope Eugene IV established the right of the choir members to benefices and even gave them precedence in the distribution of new benefices (Lowinsky 1968, 339). The practice of inheriting benefices within the Papal choir was also established in the fifteenth century:²⁸ on the death of a singer, his benefices were divided amongst the members of the choir (Starr 2004, 183-184). This practice was still very much the norm in the mid-sixteenth century (Sherr 2004, 193; see also Starr 2004, 185, note 39).²⁹ The singers of the choir of St. Peter's also enjoyed the same kind of privilege of inheriting benefices, although their pool of benefices was not as plentiful as the Papal Chapel's (Reynolds 1995, 39).

Fourthly, a position in the Papal Chapel was for life. The singers could choose to remain in the status of *giubilati* in Rome after 25 years in the chapel. They were not expected to work any longer, but still kept their rights both to monthly wages as well as to gratuities (Lionnet 1987, 3-4). In 1565 there were five pensioned singers on the payroll, and in 1594 there were two (Sherr 1994a, 614; Frey 1974). This was a major benefit, as losing one's voice in later life seems not to have been all that unusual (see Sherr 1994a, 612, 614).

It even seems that a position in a Vatican choir meant fewer workdays than in the smaller chapels: both the Papal Chapel and the Cappella Giulia seem to have moved in the latter half of the sixteenth century to a division of the choir into two groups, which alternated on ferial days, with the whole choir present only on Sundays and festal days (Lionnet 1987, 5; O'Regan 1996, 153; Marvin 2002, 8).³⁰ This would have left the singers with more freedom for solo work, for example, or composing.³¹

²⁸ This practice was affirmed by a papal bull in 1492: Innocent VIII's *Etsi Romanus Pontifex*.

²⁹ Giovanni Antonio Marlo, who sang in the choir between 1551 and 1588, noted in his diary (see Sherr 1978, 83-84) that he received ca. 40 ducats yearly from his benefice in Calabria.

³⁰ Annibaldi (2011, 24, note 25) claims that each voice part was divided into two alternating groups only in the 1640s. At the same time, Annibaldi states that the number of weekdays off for each singer increased from one to three in the latter part of the sixteenth century. I take this to mean that the systematic alternation was created only after a time of rotation had been realised through other means.

³¹ Of the 1594 Papal choir, at least Alessandro Merlo and Giovanni Luca Conforti were known as virtuoso singers and Giovanni Maria Nanini as one of the most important composers of the generation after Palestrina.

The duties of the singers

Both the 1545 Constitution of the Papal choir and the *Ordini* of the Cappella Giulia from 1600 clearly define what the daily obligations of the choristers were. Chapters 43 to 59 of the Constitution and Chapters 19 to 25 of the *Ordini* describe both daily and extraordinary canonical hours and masses. As to a great degree they reflect the reality of all the Roman chapel choirs, it is worth taking a closer look at how they describe the duties of the singers. Chapter 43 of the Constitution paints a vivid picture of the singers' mornings.

Chapter 43

The Divine Office celebrated in the chapel by the singers and the college

In the morning, when the bells of St. Peter's have rung for the last time, the bell-ringers of the chapel begin ringing their bells. Whilst the bells are ringing, all the singers need to enter the Chapel of St. Paul, where they need first to pray to God and then dress themselves in their habits. After this, the soprano-in-charge for the week begins Our Father in silence and after that the *Domine labia mea aperies* in a soft voice. If a singer has not arrived by the end of the Gloria of the first psalm of the Prima, he shall be fined the sum of three baiocchi.³²

In the Renaissance period the Catholic Church had two main forms of worship: the mass and the canonical hours or the *Officium*. According to the Constitution and the *Ordini*, the Papal choir was to sing the canonical hours and the daily mass. The canonical hours in the sixteenth century were sung in the following manner (Harper 2001, 45; Taitto 1992, 19–21):

³² *Caput XLIII. De divino officio celebrando in dicta Capella per eosdem cantores et collegium. Imprimis Clerici campanarii in mane per horam post ultimum sonum campanae Sancti Petri tenentur sonare campanellam Palatii, et tempore sonitus campanellae praedictae omnes cantores obligati sunt intrare capellam Sancti Pauli, et primitus ante Deum orare, et facta oratione suis cottis se induere, ac unus sopranorum hebdomadarios cantorum incipere secretae Pater noster, et deinde alta voce Domine labia mea aperies et caetera. Et si tunc aliquis cantorum non interesset in principio officii in capella, videlicet in fine Gloria Patri et caetera primi psalmi, punctabitur in baiocis tribus.*

The sixteenth-century Roman coinage was fairly complicated. The Constitution of the Papal choir features references to the following coins: Julius (also giulio), ducat (ducatu), baiocco, carolinus (carlino) and quadrinus (quattrino). The ducat was replaced by the scudo d'oro in 1530. By 1540 the scudo was divided into two different coins, the scudo d'oro and the scudo di moneta.

1 scudo d'oro = 11 giulii

1 ducat = 1 scudo di moneta = 10 giulii (carlini) = 100 baiocchi

1 quattrino = 1/4 baiocco (until 1591)

(Benigni 1911; Dean 2004, 138; Reynolds 1995, 35.)

As the monthly wages of the papal singers between 1540 and 1586 were scudi (di moneta), three baiocchi would thus be approximately the equivalent of one tenth of the daily wage.

Matins (matutinum)	night time
Lauds (laudes)	sun rise
Prime (prima)	6 am
Terce (tertia)	9 am
Sext (sexta)	noon
None (nona)	3 pm
Vespers (Vesperas)	the time of lighting the lamps
Compline (completorium)	before going to bed

The Papal choir and the choir of St. Peter's sang Matins and Lauds only on some of the major feasts. They normally began their day with Prime, and mass was sung directly after Terce. Sext was sung at noon, and None, Vespers and Compline were sung one after the other after the evening bells of St. Peter's were rung. Absent singers were fined; in fact, the rationale for listing the obligations of the choristers seems to have been to create a system of exact fines.³³ According to Bianchi (1995, 81), the choir of Santa Maria Maggiore sang the daily hours: Matins, Prime, Terce, Sext, None, Vespers and Compline. Mass was sung on Sundays and festal days.³⁴

In the pre-Tridentine form of the canonical hours (before the 1560s) the choirs sang the following parts of the liturgy of the hours (Harper 2001, 76–77):

Prime, Terce, Sext, None: hymn and psalms
 Vespers: psalms, hymn and Cantic (Magnificat)
 Compline: psalms, hymn and Cantic (Nunc dimittis)

During the mass the choir sang settings of the Ordinary texts Kyrie, Gloria, Credo, Sanctus (with Benedictus) and Agnus Dei. It also sang the following parts of the Proper: the Introit, Gradual, Alleluia, Sequence, Offertory and Communion. (Harper 2001, 115-120.)

The choirs sang three styles of repertory: chant, improvised counterpoint and polyphony. The majority of the daily liturgy would have been sung in chant. Improvised counterpoint was especially used in the singing of psalms of the Holy Office. Polyphony was seen as the most festal style of singing and the Ordinary of the Mass was sung in polyphony at least during the major feasts, and in the case of the Vatican choirs, during all papal masses. A polyphonic motet on the appropriate Proper text was normally sung after the Offertory. (Cummings 1981, 45; Lionnet

³³ The fines of the Cappella Giulia were a little lower than those of the Papal choir, but the *Ordini* differentiates fees for absences on ferial and festal days, which the Constitution does not do.

³⁴ The lesser Roman chapels sang only parts of the daily office. For example, the Seminario Romano only sang the Mass and Vespers daily. On ferial days, this was taken care of by four hired singers. On Sundays and festal days, the whole seminary took part in the singing of the Mass and Vespers, as well singing the Litanies of the Blessed Virgin every Sunday and Matins and Compline on some major feasts. (Casimiri 1935, 4–13.) In the 1590s, the choir of San Luigi dei Francesi sang morning Mass, Vespers and the evening Angelus daily (Lionnet 1986, 15).

1987, 11; Brauner 2004, 170–172.) Two general rules could be that the smaller the choir, the less often it sang polyphony; and the greater the feast, the more likely it was that polyphonic singing was heard. It is important to remember that polyphony was an aspect of liturgical practice. As Rodin (2012, 17) puts it: “polyphony was both tethered to the liturgy and, when all is said and done, ornamental”.³⁵

The polyphonic repertory

The major source for the repertory of the main chapels is naturally the music of these chapels that has survived. The Vatican choirbooks in particular preserve at least an important part of the repertory of the Vatican choirs. Polyphony plays a central role in the choirbooks. For example, during the reign of Palestrina’s first important patron, Pope Julius III (1550–55), two codices prepared for the Papal Chapel, CS154 and CS155, both contain four polyphonic masses by such composers as Josquin des Prez (ca. 1450/1455–1521), Cristóbal Morales (ca. 1550–1555) and Jacques Arcadelt (ca. 1507–1568), all of whom had been previous members or were then present members of the chapel (Haberl 1888b, 41, 66).

Palestrina’s works do not appear in great number in the codices of the Vatican choirs before the 1580s. The surviving Papal Chapel choirbooks from before 1580 include seven masses and two motets. Between 1580 and the end of the sixteenth century, fourteen masses, fourteen motets and two magnificats by Palestrina were copied into the Papal Chapel manuscripts. (Marvin 2002, 113–128.) In addition, the papal chapel acquired all of Palestrina’s published collections of sacred music after 1580 (Marvin 2002, 13–48). The Cappella Giulia codices similarly show the growing importance of Palestrina’s music during the 1580s: at least the hymns for the church year, 16 magnificats, a requiem, two responsories and the *First Book of Motets* were copied during that decade (Rostirolla 1977, 141–144). The main reason for this sea-change was the post-Tridentine liturgical reform: the new Breviary (1568) and Missal (1570) rendered much of the repertoire of the Vatican choirs obsolete. New hymns, motets and even masses were needed.³⁶ Because Palestrina had had a master

³⁵ An idea of the role and importance of the papal singers can be gleaned from Annibaldi (2011), who argues that celebrating the Mass was a means (through transubstantiation) to ensure the presence of Christ in the residence of his vicar on earth, the pope.

³⁶ After the reform, Palestrina published six books of motets (between 1569 and 1584), five books of masses (between 1570 and 1594), a book of lamentations in 1588, a book of hymns for the Church year in 1589, a book of magnificats in 1591, and two books of litanies and offertories in 1593 (see, for example,

plan to publish as many of his works as possible during his career, his compositions were accessible at a time of demand.³⁷

Lists of works that were sung at specific services are almost non-existent. The first such list of polyphony that comes from the papal chapel is from the year 1616. The *punctatore* of that year, Carlo Vanni, drew up a list of the works sung at the papal ceremonies.³⁸ A total of 116 compositions, the list includes music for mass (Mass propriums and motets) and for the Divine Office (psalms, hymns, antiphons, canticles). Palestrina dominates the list: of the 116 works mentioned, 52 are by Palestrina. The age of some of the repertory is striking. Along with works by composers of the time, there are six works by Cristóbal de Morales (who died in 1553), two by Constanzio Festa (d.1545), one by Jacquet (d.1559) and even one by Josquin, whose motet *Qui habitat* must have been over a century old in 1616. (Lionnet 1987, 11, 13–14.)

One characteristic of the repertory of Roman chapel choirs was its conservative nature. Much of the music in use in the chapels was several decades old, in some instances, closer to a century in age. This is apparent not only in Vanni's list, but also in the polyphonic repertory mentioned in the diary of papal singer Giovanni Antonio Merlo from the late 1560s. Merlo lists works by Jean Mouton, who died in 1522, Loyset Compère (d. 1518), Robert Févin (d. ca. 1518), as well as Constanzo Festa and Loyset Piéton, both of whom died in 1545. Thus most of the pieces Merlo mentioned would have been several decades old, and some of them were over fifty years old. (Sherr 1978, 91–93.)

A list of works made of the Cappella Giulia repertory of the 1560s by a French tenor of the chapel, Simon Prince, is more extensive and yet points to exactly the same tendencies in Merlo's short list. Almost half of the 295 works identified in Prince's list by Dean (1988) are by the three central composers of the papal chapel in

Marvin 2002; Dean 1988, 487). The importance of Palestrina as saviour of church music was greatly exaggerated in early seventeenth-century writings. For balanced views on the decrees on music of the Council of Trent and the role of *Missa Papae Marcelli* in the 1560s, see, Monson (2006) and Mischiati (1977), respectively.

³⁷ See Bernstein (2007) for a balanced discussion of Palestrina's aims in publishing his music. I agree with her conclusion that Palestrina's publishing activities were not intended to make money or garner fame: for that his publications were too expensive and directed at too limited a target group for that. As a result, in his lifetime and in the decades following his death, Palestrina was respected above all by his colleagues within the church and was best known in Rome. In his *A Plaine and Easie Introduction* (1597), Thomas Morley lists suitable Italian models for the art of composing motets: Ferrabosco, Marenzio, Vecchi, Venturi...but no Palestrina (MacClintock 1982, 98). Henry Peacham, writing in *The Compleat Gentleman* (1622), presents an exhaustive list of composers of the latter part of the sixteenth century (the greatest three being William Byrd, Ludovico de Victoria and Orlando di Lasso), but does not mention Palestrina (MacClintock 1982, 98).

³⁸ Vanni was a boy chorister in the Cappella Giulia and was trained by Palestrina between 1575 and 1578 (Rostirolla 1977, 217).

the early sixteenth century: Elzéar Genet alias Carpentras (ca. 1470–1548), Constanzo Festa (ca. 1485/90–1545) and Cristóbal de Morales. Their compositions represent strictly liturgical polyphony: magnificats, passions, lamentations and hymns. The other main body of works, consisting of masses and motets, is of Franco-Flemish origin, and includes works by Claude de Sermisy, Josquin and Jean Mouton, among others. The majority of the works in use at the Cappella Giulia would also have been several decades old, in some cases well over fifty years old. (Dean 1988, 482.) The practical and conservative nature of the Vatican choirs is a natural consequence of their work: performing the Office and mass daily and training choirboys left little room for mastering new material. In fact, documentation on choir rehearsals is rare. This can, of course, imply that rehearsals were not events worth recording, but it may as well indicate that rehearsals were not an ordinary occurrence.³⁹

The Seminario Romano

Palestrina left the Santa Maria Maggiore in 1566 and took up the position of music master at the new seminary, Seminario Romano. Although the position still combined education and liturgy, the emphasis was now definitely on the former.

One of the most important practical reforms of the Council of Trent was the founding of theological seminaries intended to raise the educational level of the clergy. The training of the clergy was to be carried out in these special colleges “designed to produce a better-educated, more moral and professionally conscious clergy (Duffy 2006, 214).” As a consequence of this programme, the Seminario Romano was founded in 1564. Pope Pius IV (1559–65) placed the seminary in the hands of Cardinal Savello, who in turn involved the Jesuits who undertook the management of the seminary. The seminary was opened to roughly 80 students in February 1565. (O’Malley 1995, 161, 236.)⁴⁰

³⁹ In the 1594 *Diari Sistinei* (Frey 1974), the *puntatore* has recorded three rehearsals that took place on the Monday, Tuesday and Wednesday before Palm Sunday. These rehearsals were preparation for the Office of the holy week (*si cominciò a provar le lamentationi per la settimana santa*; the rehearsals for the lamentations of the Holy week began, writes the diarist on 28.3.1594). The Thursday, Friday and Saturday before Palm Sunday were reserved for the confessions and communion of the singers and the chapel closed down for these days. (Frey 1974, 466–467.)

⁴⁰ Placing the seminary in the hands of the Jesuits was not uncontroversial. The Roman clergy resented having young Roman priests trained by foreigners, who formed a major part of the early Jesuits. The pope taxing the clergy to fund the Seminario would not have helped, either. (O’Malley 1995, 236.)

The Seminario Romano was modelled on the existing Jesuit colleges: the Collegio Romano, founded in 1551 and the Collegio Germanico, founded in 1552. The seminarians lived at the Seminario and took classes in subjects other than theology at the Collegio Romano. The students mainly came from the lowest social classes and were a handful for the Jesuit fathers, who complained that the seminarians were anything but suitable material for the priesthood. In 1568 the Jesuits even asked the pope to be relieved of their obligation to the Seminario Romano. (O'Malley 1995, 130, 197, 236–237.)

Whether the seminarians were as unruly as the Jesuits claimed, they were at least immersed in music. According to the statutes of the institution, in addition to their studies in letters, philosophy, theology and grammar, all students studied music daily.⁴¹ They were to sing one hour of polyphony (*canto figurato*) each day and, time permitting, a half-hour of chant (*canto fermo*). The daily portion of polyphony was to be between three and four motets. (Casimiri 1935, 4–8.) In addition to training the seminarians in music, the seminary provided music for a daily mass and Vespers. On ferial days, the services were sung by hired singers, but on festal days the whole seminary participated in the music making.

Palestrina was the first maestro of the Seminario Romano (1566–71). His two sons, Rodolfo and Angelo, are listed as seminarians in 1569. (Casimiri 1935, 17–19.) Some of the seminary students lived at the seminary, and Bianchi (1995, 105) believes that Palestrina's sons belonged to this group.⁴²

Freelance work

As O'Regan (1994) has shown, Palestrina did occasional freelance work for Roman confraternities, as well as some Roman churches throughout his Roman years. Most of this work was done for the three largest Roman confraternities, Arciconfraternita del Santissimo Crocifisso, Arciconfraternita della Santissima Trinità dei Pellegrini

⁴¹ The curriculum of the Seminary was modelled after the Colleges founded in the 1550s. Gregory Martin (1969, 164) described in 1581 the curriculum of the Collegio Romano as including, besides theology, “the Hebrew tong, the Greeke tong, Al maner of Philosophie, Al the Mathematicals, Cosmographie, Logike, Rhetorike, Pöetrie, Grammar”.

⁴² Despite the complaints of the Jesuits, it seems that the seminary did succeed in educating at least Rodolfo Pierluigi. After the premature death of Rodolfo, who was to be employed at Mantua, Bishop Odescalchi wrote the Duke of Mantua a message lamenting the death of the young musician. In it he describes the 22 year-old Rodolfo as proficient in logics, philosophy, Latin and Greek, as well as a master of many instruments. (Bianchi 1995, 143.)

and Arciconfraternita del Gonfalone. In most cases, Palestrina assembled the musicians, chose the music and took care of all the practical details necessary to provide a polyphonic choir for processions on Holy Thursday and Corpus Christi. On occasion, Palestrina also provided the music for Lent and Holy week for SS. Trinità. In 1576 the choir he assembled to sing Lenten Friday devotions and Holy Week Tenebrae Offices consisted of eight singers and an organist; in 1578 the number of singers may at best have been twelve. (O'Regan 1994a, 553–564.) There is evidence that the singers that Palestrina recruited for freelance work in the early 1550s and the 1570s came from his own choir, Cappella Giulia (O'Regan 1994a, 558, 566).

Palestrina's most important work outside his duties as the maestro of the Roman chapels and the Seminario Romano was a period in the service of Cardinal Ippolito II d'Este, the son of Duke Alfonso I of Ferrara and Lucrezia Borgia.⁴³ Cardinal d'Este was a great patron of the arts: Benvenuto Cellini was his goldsmith, Titian painted for him, and the poet Torquato Tasso spent time in his household. He was patron to Nicola Vicentino, the musician famous for his publication *L'antica musica ridotta alla moderna prattica* (1555). But the most famous beneficiary of the Cardinal's patronage of the arts is Palestrina, who was the Cardinal's maestro from the beginning of August 1567 to the end of March 1571. (Pugliese 2006, 81–82; Coffin 1960, 5.)

Palestrina and his musicians provided music both for the Cardinal's palace in Rome and the luxurious Villa d'Este in Tivoli. The Cardinal had been appointed Governor of Tivoli in 1550 by Pope Julius III for supporting the Pope's election and built a palace-like villa in Tivoli with a magnificent garden (Coffin 1960, 5). The musicians would have been in demand for both musical entertainment in the villa and in the gardens, as well as for the liturgical music in the villa's small chapel, or possibly in the church of Santa Maria Maggiore, which stands next to the Tivoli palace.

Palestrina had approximately a dozen musicians, singers and instrumentalists, at his disposal during his years in the Cardinal's service. According to Pugliese (2006, 111), in 1570 the Cardinal employed two trombones, one *cornetto*, one *viola*, a lute and an organ, as well as seven other musicians, two of whom are specifically identified as singers. The five remaining musicians could well have been either singers or instrumentalists, or both. In any case, it is clear that Palestrina was used

⁴³ Lucrezia Borgia was the natural daughter of Pope Alexander IV and the sister of Cesare Borgia, the paragon of Machiavelli's Prince.

to performing with combinations of singers and instrumentalists, and some of the works were quite certainly his own.

It is also worth noting that this was not Palestrina's only commitment outside his work for the Roman chapels or confraternities. It is apparent that he provided music for the festivities of Prince Giacomo Buoncompagni, the natural son of Pope Gregory XIII (Pugliese 2006, 82; Bianchi 1995, 182; Pastor 1955, 29). While other such commitments are not known, there are no real grounds to rule out their possibility, especially in the 1560s, when Palestrina was struggling to make ends meet with a growing family and fairly poor wages from his employers.

Where they sang: Acoustical considerations

When we think of Palestrina's music being performed in Roman churches, we are easily led to thinking about huge spaces with long reverberation times. But most of the singing by the sixteenth-century Roman chapel choirs took place in fairly small chapels with only the major festal liturgies taking place at the high altars of the most spacious churches. Indeed, it is easy to see how the construction of new, larger and less cluttered churches in the second half of the sixteenth century caused a change in musical style (to polychorality) and led to a growth in the numbers of singers and instrumentalists used during bigger feasts (see 'Instruments' in Chapter V).

In the sixteenth century, the Papal choir sang mostly in the pope's private chapel in the Vatican palace, the *Capella Sancti Pauli* or *Capella Paolina*, consecrated in 1540. Prior to the Pauline chapel, which began to be used in 1545, the pope's private chapel was the *Capella Sancti Nicolai* (Sherr 1982, 250), which was only 6.6 x 4 metres in size (Vatican guide 2007, 101). The Pauline chapel, perhaps best known for the Michelangelo frescos from the 1540s,⁴⁴ is also a relatively small space, roughly 10 x 8 metres without the choir.

Papal masses and Vespers were sung in the bigger Cappella Sistina. Although considerably larger than the Cappella Paolina, the Cappella Sistina is hardly a huge space: it measures 13.4 metres in width, 40.9 metres in length and 20.7 metres in height (Vatican guide 2007, 111). The singers were placed in a *cantoria*, a niche in the wall on the left-hand side (when viewed from the altar). The marble screen

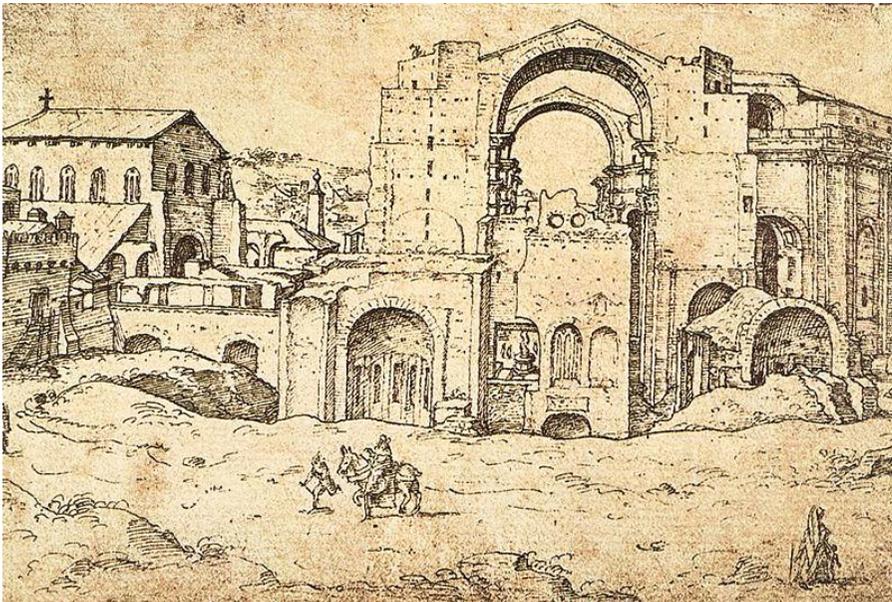
⁴⁴ The Conversion of Paul and the Crucifixion of Peter.

separating the officiating clergy from the congregation was originally adjoined to the *cantoria* but it was moved further backwards in the sixteenth century (Vatican guide 2007, 111). The *cantoria* was apparently not ideal: the singers were detached from the proceedings at the altar and from the pope, the niche was too small for the sixteenth-century choir and the acoustics were somewhat problematic (Sherr 1994b, 117).⁴⁵ A famous 1578 engraving by Étienne Dupérac shows the singers crowded in the *cantoria*, quite detached from the altar. It is probably fair to say that singing from the *cantoria* would not have produced the cathedral acoustics we often associate with Renaissance polyphony.

⁴⁵ The size of the *cantoria* is roughly three to four metres in depth, five metres in width and three in height. Its floor is at a little over two metres from the floor of the chapel and the *cantoria* protrudes about a metre from the side wall. It is easy to understand that for especially the singers who were in the back rows the acoustical environment would hardly have been ideal.

mid-fourteenth century plans to renovate Old St. Peter's to accommodate more pilgrims and make more space for the clergy in the cluttered church were never completed, and by the beginning of the sixteenth century the basilica was in a perilous state. (Partridge 1996, 43, 50.) In 1513 the Vespers on Christmas day had to be moved to the Sistine Chapel because of the dangerous condition of the church (Rostirolla 1977, 104).

By this time the construction of a new church had begun. The cornerstone of what subsequently became the St. Peter's we know today was laid in 1506. From that moment, St. Peter's became a gigantic construction site for over a century.⁴⁶ As the construction of the new basilica moved forward, the old church was gradually demolished. With the death of Julius II in 1513 and the church's architect, Bramante, in 1514, work stagnated. New plans were drawn up by Raphael, Peruzzi and Sangallo the younger. After the Sack of Rome, work was resumed under the supervision of Sangallo in 1538. After Sangallo's death in 1546, Michelangelo took over the project and even destroyed part of the work already completed under Sangallo. A drawing by Martin van Heemskerck shows the state of the work on St. Peter's in 1536. (Partridge 1996, 51–54; Pergola 2007, 48–49)



Maerten van Heemskerck, St. Peter's in 1536 (Wikipaintings 2013)

⁴⁶ An idea of the construction work can be gleaned from Vasari's *Lives* (Aronberg Lavin 2005, 160): "[Michelangelo] made two spiral staircases, with steps of ascent so easy and so slightly inclined that the asses used for carrying the materials to the summit could mount and descend them, while men could go up on horseback to the platform of the arches."

In this picture, the remains of the Old Basilica are visible on the left. Bramante's huge pillars and the apse stand behind it to the right of the picture. The stump of the old church was approximately one third of the length of the Old Basilica, which had measured 120 metres in length and 64 in width. This means the remains of the old basilica, which were left standing for use until new St. Peter's was completed, would have measured approximately 40 to 50 metres in length (Reynolds 1995, 12, note 5).⁴⁷ The last remains of the Old Basilica were not torn down until the early seventeenth century (Suffi 1999, 12).

The daily canonical hours would have been sung in the Cappella Sistina⁴⁸ or the Cappella del Coro of the Old Basilica. The latter was situated on the southern flank next to the obelisk (which was moved to its present place in 1586), where the Cappella del Coro of the modern St. Peter's is now to be found. (Rostirolla 1977, 122–123.) Estimates of the dimensions of the chapel are hard to come by, but from reconstructions one can see that the Old Cappella Sistina can only have been a fairly small space. The chapel is probably also visible in van Heemskerck's drawing (the lower building in front of the obelisk).⁴⁹ Mass was sung in different *capelle* and at varying altars according to the feast (Lockwood et al 2001, 941). The major papal services would have been sung at the high altar.⁵⁰

In a similar fashion, the daily Office at San Giovanni in Laterano and Santa Maria Maggiore would have been sung in chapels. Judging the acoustical character of these spaces is difficult, as practically all of the major chapels of both churches were rebuilt after Palestrina's time, with the exception of the Cesi Chapel of Santa Maria Maggiore, which was built during Palestrina's years at the Liberian Basilica

⁴⁷ The Constantine basilica had five naves, separated by three rows of 22 columns. A shorter transept gave it the form of a Roman cross. The floor was of different shades of marble and the roof of wood. (Suffi 1999, 6.) Of Rome's oldest churches, the Santa Maria Maggiore is closest in size and form to the old basilica. A fifteenth-century visitor to Rome (quoted in Reynold 1995, 12) gives the measurements as 200 braccia x 100 braccia, i.e. 140 x 70 metres.

⁴⁸ Thus named because it was built as the burial chapel for Sixtus IV in 1479 (Reynolds 1995, 11–12).

⁴⁹ Palestrina's time at the Vatican is intertwined with Michelangelo's in an absorbing way. When Palestrina arrived at St. Peter's, Michelangelo was the main architect of the building of new St. Peter's and the men would almost by necessity have run into each other regularly. In the Papal Chapel, Palestrina's work environment was filled with Michelangelo's art: the frescoes of the Sistine Chapel ceiling from the 1510s and the Last Judgement from the 1530s, as well as the two frescoes of St. Paul in the Cappella Paolina from the 1540s. During Palestrina's latter period at St. Peter's, Michelangelo's Pietà stood overseeing the singing of canonical hours in the old Cappella Coro (Lees-Milne 1967).

⁵⁰ In the listing of papal services from the early sixteenth century, the papal master of ceremony Paride De Grassis mentions the following to be sung in St. Peter's: the Vespers of Christmas and Saints Peter and Paul; Masses on Christmas Day, Epiphany, Ascension, Corpus Christi and Saints Paul and Peter (Sherr 1982, 253). As the pope's personal choir, the Papal Chapel always took part in the papal services. According to the Ordini (1600, 25–26) of the Cappella Giulia, the choir of St. Peter's also sang at these papal services. In these papal services, the Ordini (1600, 20–26) always notes *si canta il motetto à Nostro Signore* (a motet is sung to our Holy Father), and it seems that the role of the choir of St. Peter's was supportive and the main bulk of the singing was done by the Papal choir.

(Riccitelli & Limardi 2005, 20–25; Cattani 2008). The masses on festal days would have been sung at the high altar. It is quite understandable that the fairly small choirs of both basilicas would have needed reinforcements for these major feasts.

The first seat of the Seminario Romano was the palace of the deceased Cardinal Rodolfo Pio di Carpi (Bianchi 1995, 100).⁵¹ This meant that the seminary had no church of its own and had to hold its services in various churches around Rome. Before moving to the Chiesa del Gesù in 1576, the seminary sang in the Santa Maria in Trastevere and the Lateran Basilica (Casimiri 1935, 10–11). In all likelihood, after 1576, the hired group of four singers would have sung the daily mass and Vespers in one of the chapels of del Gesù, and the seminary *in corpore* on Sundays and major feasts at the main altar.

The key observation here is that during Palestrina's time, liturgical music was seldom performed in the kind of big, open spaces we readily associate today with Roman cathedrals. The music was not intended as a performance in the modern sense; rather, it was an aspect of the liturgy itself, sung with and mainly to the clergy. As the building spree of new churches created more open and bigger spaces in the latter half of the sixteenth century, a tendency of growth in the number of singers and hired instrumentalists becomes clear. The musical response to these new surroundings was polychoral music. Nevertheless, most of the polyphonic music from the sixteenth century was not composed for huge, open spaces, but for more intimate surroundings, and this includes the music of Palestrina.

Summary

The Roman chapel choirs were built on two models: the Roman *schola cantorum* and the Papal choir. The *schola cantorum* is significant in two ways: from a very early time it represented both the use professional musicians in the liturgy and the training of choristers. The Papal choir, born during the Avignon papacy in the fourteenth century, was created to be a premiere ensemble for adorning the papal services. Although the *schola cantorum* was abolished in the late fourteenth century, its educational programme reappeared in the early sixteenth century. The choir of St. Peter's, the Cappella Giulia, was given the double task of training boy choristers and providing music for the liturgy of St. Peter's. Several major Roman chapels,

⁵¹ The cardinal was the dedicatee of Palestrina's First Book of Motets (1555) (Bianchi 1995, 100).

including Santa Maria Maggiore followed the example set by the Cappella Giulia and began training choirboys in the 1530s. One of the first generation of boy choristers at Santa Maria Maggiore was Giovanni Pierluigi da Palestrina.

The guild-like chapel choirs consisted of professional singers, and, in most cases, boys in training. The choirs went about their daily music-making fairly independently, and the responsibility of the chapelmaster was normally to oversee the training of the boy choristers and take general responsibility for the smooth running of the musical-liturgical apparatus. When the liturgical reforms after the Council of Trent created a need for new liturgical music, the expectations for the chapelmaster to compose music for his chapel seem to have grown. This demand was emphatically met by Palestrina.

Palestrina's sacred music was written for the Roman chapel choirs' liturgical use. Based on their surviving resources, it appears that these chapels sang parts of the daily hours of the Office and the mass either daily or on Sundays and feasts. The most prestigious and the biggest choirs, the Papal choir and the choir of St. Peter's, sang mass as well as all the canonical hours daily, with the exception of Matins and Lauds, which were sung only on a few major feasts. The smaller choirs normally sang at least the Vespers daily.

Polyphony was only one aspect of liturgical music. Chant was the daily bread of the choristers and improvised counterpoint and polyphony were the festive aspects, although it is likely that the amount of polyphony heard daily was much greater in the Vatican choirs. Until the 1570s, much of the polyphonic repertory sung by the Roman choirs was either composed by members of the papal chapel in the first half of the sixteenth century, especially Elzéar Genet (Carpentras), Constanzo Festa and Cristóbal de Morales, or by Franco-Flemish composers such as Josquin des Prez and Jean Mouton. Much of this repertory had already been in use over half a century in the 1570s. A major upheaval in the polyphonic repertory followed only after the post-Tridentine reforms made much of the music unsuitable for liturgical use. The conservative nature of this repertory is in part made understandable by the nature of the ecclesiastical work and the lack of rehearsals in the chapels, but it can also reflect a general conservative attitude to liturgical music in Rome.

Palestrina's work outside the Roman chapels reinforces the diversity of the picture: most chapel choirs were small, and Palestrina would have been accustomed to combining instruments and voices, especially in the service of Cardinal Ippolito d'Este. Although Palestrina's freelance work for other churches and Roman

confraternities was fairly limited, it also provides a glimpse into how ad hoc groups were formed and how big they usually were. Palestrina's employment at the Seminario Romano seems to be a chapter of its own, with a much stronger emphasis on training youngsters who had no great musical ambitions. The seminarians probably also made up the largest choir directed by Palestrina: if all the seminarians took part in the daily singing of polyphony, the choir would have numbered over fifty singers!

Finally, the analysis of the acoustical spaces in which Palestrina's choirs sang reveals that most of the singing was done in intimate surroundings, especially small chapels. Palestrina's polyphony was seldom written for huge, open spaces with extremely reverberant acoustics. On the whole, the opposite is probably true: both the Papal choir and the Cappella Giulia seldom sang in any space bigger than the Sistine Chapel. St. Peter's Basilica as we know it was completed only after Palestrina's death. Before the 1590s, the major services in St. Peter's were sung in the remaining third of the old Constantine Basilica.

IV Performing Palestrina

The fourth part of this book is its essence and is dedicated to questions of performance practice. The aims are twofold: firstly, to describe the most commonly held views in literature on the aspects of performing Renaissance polyphony in general and specifically in relation to Palestrina's sacred music; and secondly, to outline the practical implications of these views for a musicians. The emphasis is on secondary sources. Primary sources are used to support the prevailing scholarly views, in some cases to cast doubt on some generally held views, and in others to add to the views presented in scholarship to date. Important primary sources are also facsimiles of sixteenth-century editions of polyphony, especially those of Palestrina's music.

This part is divided into two large chapters. The first of these, 'The Music', concentrates on aspects of performance primarily related to the notation and its interpretation. These include a discussion on what the music the singers of Palestrina's time used was like and what practical implications can be drawn from this material; an examination of the views expressed in scholarship on the question of tempo; an analysis of performance pitch and transposition in Palestrina's Rome; and, finally, a discussion on the rules and the application of *musica ficta*, the practice of adding unmarked incidentals to the music.

The second large chapter, 'Singing Palestrina', focuses more on the more physical side of performance practice, the what, who, how and where, as it were. A description of the size and make-up of the Roman choirs is followed by a discussion on the style of singing sacred music in the sixteenth-century. Part of this question is the tradition of improvised embellishment described in many didactic treatises from the late sixteenth century. The use of instruments and especially of the organ in vocal polyphony is a central question to how the music sounded in Palestrina's time. In addition, the chapter includes a discussion on the manner of singing chant in Palestrina's Rome.

This division into these two parts is to an extent arbitrary and at times the areas overlap. The subject matter is so complex and diverse, at times unruly, that packaging it completely systematically is virtually impossible. This division is thus better understood as an aid to the reader than as a sharp partition into to well-distinguishable areas.

The Music

As with all music, we have two main sources of knowledge on how to perform a piece of Renaissance music: the music (the text) and the prevailing convention of interpreting this music (tradition). We must admit to ourselves that the tradition of performing sacred polyphony in the sixteenth century has been irrevocably lost, and that whatever tradition we have will just as irrevocably be a modern tradition, however influenced it is by historical evidence. But we do have access to a great deal of the music, both as modern interpretations (modern scores) and in the original form. The original notation, both in handwritten partbooks and choirbooks as well as sixteenth-century printed editions is preserved in libraries around the world, and fortunately also in many modern facsimile editions.

The early music movement of the second half of the twentieth century has many similarities with the religious Reformation of the early sixteenth century. In the same manner as Luther and his followers rejected the authority of Church tradition and looked to the writings collected in the Bible, the pioneers of the early music movement rejected the prevailing manner (tradition) of performing Baroque or Renaissance music and looked to the theoretical and pedagogical writings from the sixteenth to eighteenth centuries. The Lutheran principle of *sola scriptura* (by scripture alone) is mirrored in the attitude of the early music movement that rejects prevailing tradition and looks to the writings from the time of the music combined with the music itself.¹

While a *sola scriptura* attitude is apt to bring fresh air into our way of understanding music, it is worth remembering that there will never be a period free of tradition. A good reminder of this is that the major Lutheran Confessions are from the 1530s, only a decade or so after Luther's Theses. A dogmatic freedom could not be tolerated for long and a new tradition needed to be formulated very soon. The same applies to the early music movement: a new tradition of how Baroque or Renaissance music was to be performed took form during the 1960s to 1980s. Just how uniform that tradition is becomes clear when comparing recordings of early music from the 1970s and our time. The formation of a tradition in music is probably hastened by its primary mode of dissemination: recordings. One influential

¹ Aptly, the Renaissance is often understood as a similar venture in itself. It looked beyond the prevailing medieval tradition to the Antique. It was also very much a literary movement: its sources were mainly writings and its ideas were disseminated through writings.

recording can change views on how, for example, a Bach oratorio should be performed in a way no literary source could ever dream of.

For this exact reason, that new traditions are born at the rate of knots, every generation needs to return to the scriptures: the writings and especially the music. The music is ultimately the reason why we delve into archives and early writings. And fortunately, it is the one element that is preserved to us as it was in the late sixteenth century. The writings from the time of its birth are an important key to unlocking part of the notation, but in many ways most of the keys to unlocking the wonders of this music exist in the music itself.

Notation

“...we will not get at the heart of the music if we do not approach it in the same way [as our Renaissance counterparts], from the individual parts, allowing their flowing together, their confluence to create the whole.” Smith (2011, 18)

Considering the amount of research on Renaissance music, it is surprising that so little emphasis has been paid to the one thing surviving *en masse* from the period: the partbooks and choirbooks containing the music. The significance of studying and using the original notation has been something of a blind spot in the literature on Renaissance music and its performance.

While Renaissance singers sang exclusively from music in which they could only follow their own vocal parts, modern ensembles predominately work from modern editions in score format. Besides being at the mercy of the editors, singing from modern scores without reference to sixteenth-century notation rules out some information that is crucial from the performer’s point of view. It also causes a shift in the sensory experience of singing from a predominately aural experience (partbooks) to a primarily visual experience (modern score format).

What did the notation that our Renaissance colleagues used look like? The two basic formats that the choristers of the major chapels used were choirbooks and partbooks. In addition, some of the less established repertory was sung out of single-quire manuscripts that later could be bound into choirbooks (Roth 2004, 132).² Copying music into the choirbooks and even the booklets that constitute the partbooks was expensive and only the active repertory was worth copying into them (Dean 2004, 138).³ It is thus quite likely that much of the repertory was first used as single-quire manuscripts and, if the work remained in the active repertory, was later copied into the more prestigious and more durable choirbooks as the original manuscript deteriorated. But whatever the material or format, the individual voice

² A single parchment or large paper folded twice to create four leaves and eight pages.

³ Roth (2004, 132, note 37), suggests that choirbooks were put together in the late fifteenth and early sixteenth centuries at the papal chapel as repositories for repertory that had fallen out of use. However, Caput XV of the 1545 Constitution of the Papal choir seems to testify to the books being used in liturgy, as it defines who of the singers is responsible for carrying the books and placing them onto the lectern. Dean (2004, 142) refers to the corrections and alterations in the choirbooks, which according to him show that the books remained in practical use for decades. It might well be that the role of choirbooks went through a change during the sixteenth century at the papal chapel, their function moving from the archival to the practical.

parts were always written separately. Score format was rare in the sixteenth century and mainly for use by organists and for study purposes.⁴



Source gallica.bnf.fr / Bibliothèque nationale de France

Example 1. *Kyrie* from Palestrina's (1591) *Mass Aeterna Christi munera* from the *Fifth Book of Masses*, cantus. Partbook format.

Example 1 shows a printed leaf in partbook format from Palestrina's *II Book of motets for four voices* in a 1596 edition. All of the first editions of Palestrina's motets were printed in partbook format with the voices in separate booklets of roughly 50 pages each. Also the *Lamentations* of 1588, the *Magnificats* published in 1591 and

⁴ There is absolutely no doubt that scores existed in the sixteenth century (see, for example, Lowinsky 1960) and it is possible that composers made more use of them on erasable *cartelle* (Smith 2011, 14–15) than we are aware for the simple reason that these scores were only a means to an end. Once the voice parts were written down in their final form, the *cartella* could be erased. As Lowinsky (1960, 152) points out, Palestrina himself writes to the Duke of Mantua, that he has made a score of the Duke's composition to make analysis of it easier (for the letter, see Bianchi 1995, 126). On the other hand, there is evidence that experienced composers were capable of writing polyphonic compositions directly as separate parts (Smith 2011, 4–7).

Offertoria of 1593 were all published in partbook format. On the other hand, five of the eight first collections of Palestrina *Masses*, as well as the *Hymns* of 1589 were published in choirbook format. Palestrina made it clear in the dedication of the 1588 *Lamentations* that he would have preferred to have his works printed in the choirbook format that he believed would have been more appropriate for works intended for use in the sacred liturgy (Bianchi 1995, 219–220).

The preserved handwritten partbooks of the Vatican choirs are quite plain compared to the often luxurious choirbooks copied by hand. For example, *MS Cappella Giulia XIII.26*, a set of partbooks from the late sixteenth century, consists of four identical booklets marked *canto*, and two each of *alto*, *tenor*, *basso* and *quintus*. Each booklet is roughly 20 cm in height and fourteen in width, which is quite close in size to the European A5 standard. With the noteheads only roughly 0.5 cm in height and width, it is fairly evident that one booklet could only be used by one to two choristers. They were clearly intended to be held by hand.

The information given by the partbook is limited to the clef, tempo signature and the notes for one vocal part. There are no hints whatsoever to what the other voice parts are doing, not even to which part begins the piece.

Example 2. Extract from Palestrina's *Missa O regem caeli* from the *First Book of Masses* (1554). Choirbook format.

The printed extract from Palestrina's *First Book of Masses* in Example 2 gives a good idea of the basic layout of a choirbook. All voice parts are marked on the same opening. Clockwise from top left corner, the voice parts are *cantus*, *altus*, *bassus* and *tenor*. The book was placed on a lectern and the choristers stood according to the voice parts on the page with the sopranos in front and tenors behind them on the left and altos and basses respectively on the right. The task of turning the page was left to one of the altos, standing conveniently near the bottom of the right-hand page (Sherr 1987, 453).

The choirbooks were beautiful artifacts. This is especially true of the books written in hand by the scribes of the chapels, but even printed choirbooks preserve something of the sumptuousness of the hand-written books. The books were impressive even in size. For example, in MS *Cappella Sistina 22*, copied in the 1560s for use by the Papal choir, one page is roughly 65 cm in height and 45 cm in width, and an opening thus approximately 65 x 90 cm. The individual noteheads are roughly 1.5 x 1 cm. *CS 22* includes amongst other works Palestrina's *Missa Papae Marcelli*, the voice parts of which are distributed with soprano, tenor I and tenor II on the left page (*verso*) and alto and bass I and II on the right (*recto*). Even with a well-placed lectern it seems unlikely that more than ten to fifteen singers could manage to read their parts from the choirbook. Experimenting with music of a similar size might actually give us an idea of how many singers at best could partake in singing polyphony at one time. The fact that printed music in choirbook format was smaller than the handwritten tomes makes this all the more relevant: the page sizes of, for example, Palestrina's *Hymns* of 1589 (*CS 174*) and *II Book of Motets* publication of 1567 (*CS 208*) are 45.5 x 33.5 cm and 41 x 27 cm, respectively. Both of these were purchased for the use at the papal chapel in the late sixteenth century. It seems unlikely that the Papal choir of the late sixteenth-century, which had over 20 singers, could have performed as a body from choirbooks of this size.

Although this line of thought could well give us some answers to the question of how many singers at best performed sacred polyphony in the late sixteenth century, the original notation is even more central to many other aspects of performance practice. In part this is a question of having access to the original notation to define the tempo, the performance pitch and the *ficta* of the work, and partly a question of approaching the music in the same way as sixteenth-century musicians did.

Tempo, pitch, transposition and *musica ficta* will be discussed in detail in the following Chapters. At this point it will suffice to say that not having access to the

original notation can make defining any one of these factors unnecessarily difficult and leave the performer completely reliant on the editor's choices.

Is there something performing from the sixteenth-century notation could teach us about the music or its performance? Perhaps the strongest advocate of this approach during the last decade is Anne Smith (2011), who is cited at the beginning of this Chapter. On the question of notation, Smith's emphasis is on two elements: the independence of the lines and, especially interestingly, on the importance of memorisation.

Smith (2011, 15–18) discusses the role of memorisation in medieval education and its centrality in learning. In many ways the need for memorisation was brought about by the lack of written materials, and even though printing changed the situation during the sixteenth-century, printed music was still fairly expensive and rare outside institutions. Before the second half of the sixteenth century, it is quite likely that in most cases the copied or printed parts were not so much a means of disseminating the music as a support for music that was already to some extent memorised. It seems fitting that the decay of the old mensural notation took place at the same time as printed music became more common. Printed music *was* meant for general dissemination and the notation had to be more unambiguous and straightforward than earlier, when the music was copied by hand for use in one institution. The importance of memorisation could also go some way to explaining the extremely conservative approach to renewing repertory at the papal chapel described by Dean (2004) and Brauner (1990; 2004).

While the discussion on the importance of memorisation in performing music is extremely interesting, the conclusions to be drawn from this discussion most of all call for a reconsideration of general rehearsal techniques. But the other benefit emphasized by Smith is far more directly practical. The more pronounced independence of the vocal or instrumental lines when performing from partbooks (or choirbooks) is attested to by several other scholar-performers: in addition to Smith, for example Blachly (2004) and Planchart (2004) recommend using partbooks for better defined and more independent vocal parts. According to Blachly (2004, 22), singing from partbooks “frees the ears from the tyranny of the eyes” He also claims that this freedom leads the singers to more alert imitation of the other lines, because “the ear instructs the mind to imitate more than the eyes” (Blachly 2004, 22). Planchart's (2007, 41) experiences support those of Smith and Blachly: in

his view using partbooks enhance the sense of the independence of the vocal parts and help in activating the tonal and rhythmic sensibility of the ensemble.⁵

Smith (2011, 19), Blachly (2004, 21) and Planchart (2004, 41) all describe the difficulties of reading music from partbooks and testify that much more time is needed for preparing the performance of a piece if working from partbooks.⁶ It should be of some consolation that our Renaissance counterparts did not always find singing from partbooks or choirbooks easy, either. Luigi Zenobi, writing around the year 1600, calls a competent *maestro* not a *direttore*, but a *rimettore*, perhaps best translated in this context as a repairer. This is because Zenobi sees the main task of the *maestro* as one of assisting any singers who get lost in their parts, or preferably of anticipating their problems and being on hand to guide the singers about to get into trouble by singing their voice part. (Smith 2011, 5–6.) If such problems were not usual, Zenobi would hardly have mentioned them in describing the role of the *maestro*.

Singing with reference to only one's own part is not easy and is apt to cause problems, but the benefits are numerous. Besides creating a better sense of independence of the vocal lines, it creates a much stronger awareness of the *tactus*.⁷ This is an almost automatic consequence of not having visual reference to the other parts: the singers need to be much more aware of a common pulse in order to ensure they are together. The need for the beating of a *tactus* becomes much clearer, and the rhythmic character of beating the *tactus* needs to be clearer than when working from a score (see discussion in "Tempo"). Dependence on the *tactus* is also heightened when counting rests without visual access to the other parts.⁸ Without reference to the other voice parts, changes in meter also need to be very clear and uncomplicated.

⁵ The difference in experience of singing from a score and singing from partbooks is difficult to express in words. Perhaps an idea of the profound shift in perception can be gleaned from the reception of a De Victoria motet during a paper given by the author in April 2011. The same extract of the motet was played from CD twice: once with the modern score shown to the audience; once with the alto part from a printed sixteenth-century edition. A professional singer indicated she preferred the second performance much better, and was shocked to hear she had actually heard the same rendition twice.

⁶ One extremely practical problem is that the partbooks include no waypoints, which makes rehearsing from partbooks difficult. The only natural places to begin afresh are the beginning, possible changes of meter or after a rest in all the voice parts. Unless one adds certain waypoints in the music or running numbers of *tactus*, the partbooks are quite unsuitable for rehearsal purposes. This would seem to coincide with the lack of reported rehearsals at the papal chapel: rehearsals seem to have been very rare and most often the need for them seems to have been to make sure that the parts are correctly copied (Lionnet 1987, 9, 12)

⁷ I believe this is what Planchart (2007, 41) is referring to when he mentions an enhanced rhythmic sensibility.

⁸ This is especially true if the time signature changes often, because the same rest could signify a different amount of beats in duple and triple time. Michael Praetorius attempted to make rest-counting easier by placing a small digit below or above any groupings of rests to show how many *tactus* the grouping of rests makes up in all (see Paine 1998, 197–198).

To make the difference between Renaissance notation and modern editions in score format clear, Example 3 shows the beginning of the same Palestrina mass shown in Example 1 in a fairly typical modern scholarly edition. The note values have been halved, the original clefs substituted by descant and bass clefs, barlines have been added, as have slurs over barlines, *musica ficta* suggestions are placed above the notes and precise text underlay has been provided by the editor. These are all fairly typical of the modern editorial process. Washington's edition also includes the original clefs and key signature and is printed at the original pitch.⁹ The interpretative elements (suggestions for dynamics and phrasing in the *reductio partiturae*), the word stresses in the vocal lines and the score reduction are more representative of mid-twentieth century editions than scores published during the last two or three decades.

KYRIE **PALESTRINA**
Edited by
HENRY WASHINGTON

The image shows a musical score for the beginning of the Kyrie from Palestrina's *Missa aeterna Christi munera*, edited by Henry Washington. The score is divided into two systems. The first system (measures 1-5) includes vocal parts for Cantus, Altus, Tenor, and Bassus, and a piano reduction (reductio partiturae). The vocal parts feature Latin text: "Ky-rie e-lei-son, e-lei-son". The piano part includes dynamics like *pp*, *p*, and *mf*, and a tempo marking of quarter note = 76. The second system (measures 6-10) continues the vocal and piano parts. The piano part includes dynamics like *p* and *pp*. The score is divided into two systems, with the first system ending at measure 5 and the second starting at measure 10.

Example 3. First Kyrie of Palestrina's *Missa aeterna Christi munera* (Washington 1953, 5).

⁹ The clef combination actually implies downward transposition (see 'Chiavette')

If we look at Example 1, there is very little that is foreign in the notation to a musician used to reading modern scores. Where there are any ligatures, they are usually of the simplest kind. In this example they are all semibreve-semibreve ligatures (for example, at the end of the first Kyrie and just after the middle of the fourth staff). Otherwise the note durations are quite clear and do not differ radically from modern notation. The clefs (here C1, soprano clef) can be confusing, but are nothing a little practice will not remedy.

The rests are normally the greatest stumbling block, even if they are unambiguously marked as in this example (the first three rests are breve, semibreve and minim rests). This is probably because, as Smith (2011, 18) points out, bar lines form our metric orientation. We do not so much count rests as determine their length by looking at the note content of a bar. This means that if we see a 4/4 bar with only a minim in it, we assume that the rest must be of the same length. The lack of barlines is disorienting to us, especially when there are many different kinds of rests in the music. And with no visual reference to the other voice parts, a mistake in the counting of rests can cause chaos.

This potential for chaos, also testified to by Zenobi's descriptions above, leads to thinking of the written music more as a support for memory than a means to perform music unknown to the performers from before. It also might go some way in explaining the use of the organ to support sacred polyphony: if something did go wrong, the organist was on hand to guide the singers out of trouble. Also the size of the choirbooks and the conservative repertory of the Vatican choirs lean in the same direction: most of the music used by the choir was well-known to at least the more seasoned singers and they needed only some reference to their vocal part to deliver the music.

A separate question is the poor accessibility of facsimiles of partbooks and choirbooks. Facsimiles of the early prints of Palestrina's music are still difficult to come by and the newest Palestrina edition (Fondazione Giovanni Pierluigi da Palestrina), which was to include facsimiles of early editions, has not progressed as initially was anticipated. Some libraries have made access to partbooks in electronic format possible, but much work is still to be done on this front.

Summary and practical implications

Singing Palestrina's music from partbooks is not without its difficulties, but it does open up a door to the physical experience of singing this music in the same way as our sixteenth-century counterparts. With no visual access to the other voice parts, reference to the other parts can only come from listening to them while singing and through knowing the work well. This causes a sensual shift from the seen to the heard, and gives us a better understanding of how Renaissance polyphony was perceived by its performers.

The clearest benefit of singing from partbooks is the independence of the vocal parts. The contours of the vocal lines are much easier to perceive without reference to barlines or the contours of the others voices. A partbook simply makes concrete one central feature of Renaissance polyphony: the importance and individuality of each voice part. Because of the lack of visual support, the need for a clear pulse or *tactus* is also heightened. This, in turn, can help in making the rhythmic character of the music more clear, and even change the way the music is perceived by the performers.

Singing, and especially rehearsing, from partbooks can be time-consuming and frustrating. In the case of Palestrina, partbook facsimiles are not even easy to come by. These adversities are enough to drive most performers to exclusively using modern scores. This is a shame because even sporadic work from partbooks will give the singers an understanding of the physical experience of using original notation. This understanding tends to flow over into modern scores and help the ensemble achieve a better linear and rhythmic feeling of the music. The experiences accrued while working with facsimiles also give the singers more courage to evaluate modern editions and understand which elements are part of the original notation and which a part of the editorial process.

Besides the phenomenological experience of singing from partbooks, the most important benefit of having access to facsimiles of partbooks or choirbooks is the information the original notation gives on tempo, pitch and *musica ficta*. These will be discussed in the following chapters.

Tempo

*The singing must not be hurried: otherwise even an excellent ensemble will be totally confused. With a correctly produced tactus the harmony will be better and more pleasant to the listener.*¹⁰

Michael Praetorius, *Syntagma musicum*, III, 79 (1619).

Michael Praetorius' words of warning from the early seventeenth century are still worth heeding. But what is a hurried performance? Would Praetorius' idea of a correct tempo be similar to ours? What is a correctly produced tactus like? Is there historical evidence about the tempos used by musicians of the sixteenth century?

The answer to the last question is a cautious yes. The material is limited but both theorists and practicing musicians of the sixteenth and early seventeenth century have left us clues about tempo. Before the metronome, there were no unequivocal or fixed means to describe tempo, but some writers managed to navigate around the problem with references to physiology or everyday phenomena. This material is by no means unambiguous and often conflicts with the views of other writers, and, in some cases, even with other writings by the same author. The writings are still worth examining as they give us a glimpse into this central element of performance practice.

The key concept is the tactus and its relation to the human pulse. Many theorists of the fifteenth to seventeenth centuries equate the beating of a central musical note value in duration with a normal human pulse. This, of course, raises several questions: What is a normal human pulse? How precise is the definition intended to be? Do the writers imply the tactus was always similar in duration, independent of the performed piece?

While the connection of the human pulse to the tactus is generally accepted, it is by no means as clear as to which rhythmic unit this beat should be applied. The sources show that the sixteenth century was a period of transition from the traditional mensural notation. This had its effect on the tactus: the tactus seems to have shifted towards smaller note values during the century. As a general rule, the use of the breve tactus diminished during the century and the semibreve became the

¹⁰ *Cantus non est praecipitandus: fit enim confusion totius Symphoniae etiam jucundissimae. Ad tactum autem productiorem harmonia fit gratior, & melius percipitur.*

norm in both **C** and **♄**. In **C**, a *minim tactus* became more and more common towards the beginning of the seventeenth century.¹¹

An important aspect of performance tempos are the relationships between different time signatures. These proportions were the subject of countless writings from the medieval period onwards. As the traditional proportions were in a state of change in the latter half of the sixteenth century, it is worth discussing the views of the late sixteenth- and early seventeenth-century sources. An especially difficult and central subject is the transition to tertiary rhythms within a piece in binary time (**C** or **♄**).

The last two aspects to be discussed here are the variations in the basic tempo within one work and how the *tactus* was beaten. The variation in tempo includes the use of different tempos within the same work, a tempo variation according to the text as well as the question of variation of tempo within a work, and *ritardandi*. The practical side of beating the *tactus* has yet to be discussed in modern scholarship, even if the nature of the *tactus* almost by default will always play a role in the performance.

Tactus

When speaking of the *tactus*, it is worth emphasising that the word has two meanings: it is firstly the measure of the music, the pulse at which it moves and according to which it is organised; and secondly, *tactus* is the standardised method of beating time with a down and up movement of the hand or arm. The connection between these two meanings is elegantly formulated (without a reference to the word

¹¹



maxima longa brevis semibrevis minima semiminima fusa semifusa 1. maior 1. minor br. sb. m. sm. f. sf.

The most important note values in the music of the sixteenth century were the maxima (eight times a modern whole note), the long (Lat. *longa*; quadruple a modern whole note), the breve (*brevis*; corresponds to modern double whole note), the semibreve (*semibrevis*; whole note), the minim (*minima*; half note), the crotchet (*semiminima*; quarter note), and the *fusa* (eighth note or quaver) and its subdivisions (sixteenth note or semiquaver et cetera). The note values in modern editions of Renaissance scores are most often reduced by half, i.e. a semibreve is most often printed as a minim (half-note), often causing slight confusion. I will in this text be referring to the original note values unless clearly stated otherwise. (Source of graphics of note values and the respective rests:

http://en.wikipedia.org/wiki/Mensural_notation)

tactus!) in a guide for the boy choristers of San Luigi dei Francesi of Rome from the early seventeenth century:

Q: What is tempo [or time] in music?

A: The tempo is the measure of the music, which in practice is executed by beating, and lifting [of the hand], and this is commonly called the beat.¹² (Lionnet 1986, 9)

According to Bank (1972, 115), the word *tactus* was first used by Adam de Fulda in 1490. The phenomenon, however, is much older. Bank (1975, 121) lists other terms used to refer to the same phenomenon, such as *ictus*, *percussio* and *pulsare tempus*, with some of the references from as early as the first millennium.

The *tactus*, in the mechanical sense, is defined by most sixteenth-century sources as a down–up movement of the arm. In the equal or binary *tactus* (*tactus equalis*), the duration of the down and up movements is identical. In the unequal or tertiary *tactus* (*tactus inequalis*) the down movement is twice as long in duration as the up movement. This was realised by stopping the hand after the down movement and moving it up on the last third of the *tactus*. (Bank 1972, 231.) The sixteenth-century sources are quite unanimous in the view that the unequal and equal *tactus* were of the same duration. The only exception to the rule, according to most writers, is when all the singers simultaneously have the *tripla* (a perfection consisting of three semibreves). In this case, the *tactus proportionatus* was used. This *tactus* was one and one-half times the duration of the equal and unequal *tactus*.¹³ (See the analysis of sources in Bank 1972, 231.)

The function of the beaten *tactus* was to help coordinate the singing. Before the sixteenth century, this coordination was essential because of complex mensural and proportional relationships between different voice parts in the same piece.¹⁴ After the mid-1450s the rhythmic complexity of the music in general lessened, but the size of polyphonic choirs grew. With more singers, it seems likely that the *tactus* acquired

¹² D. *Cosa è il Tempo nella Musica?*

R. *Il tempo è la misura della Musica, che in pratica s' eseguisce col battere, e col levare, e che volgarmente si chiama la Battuta.*

¹³ This does not imply that the equal or unequal *tactus* is a constant. It only concerns the *relationship* of the duration of the the equal and unequal *tactus* to the proportional *tactus* when used in the same work. See the discussion on the speed of the *tactus* below.

¹⁴ Mensural notation was an effective way of denoting complex rhythms. The mensuration sign informed the singers of the subdivision of longer notes. For example, the breve in ternary time (*tempus perfectum*) consisted of three semibreves and, depending on the prolation mark, either nine or six minims, while the binary breve (*tempus imperfectum*), consisted of two semibreves and six or four minims. Proportion marks, such as 2 or 3, would change the metre, in the first case by halving the note value in comparison to the *tactus*, in the second case by reducing note values by a third. With no visual reference to what the other parts were singing, the singer of one line would be totally dependent on a common pulse, i.e. the *tactus*, for guidance. For a short practical introduction to mensural notation, see http://anaigeon.free.fr/e_mensur_regles.html.

a stronger role in keeping the performers together as a natural aural contact became more difficult. Because the singers of the sixteenth century sang from either partbooks or large choirbooks with the different voice parts on separate parts of the opening, they could not follow the movement of the other parts in their scores as modern singers do. This meant they were reliant on a common pulse that was usually given either by the maestro or a singer with a down and up movement of the arm.¹⁵

Tactus and pulse

Many writers of the fifteenth, sixteenth, and seventeenth centuries equated the *tactus* in duration with the pulse of a man at rest. In the mid-1400s, the Italian physician Michael Savonarola defined the normal pulse as being between two musical divisions that an interested doctor could learn to know from a good musician in a few hours of study. Bartolomeo Ramos de Pareja (1482, 65) wrote of striking one's foot, hand or finger at the same rate as one's pulse; Franchinus Gaffurius (1496, Book III, Ch. 1), in turn, held that the beat is equivalent to the two phases of the pulse, the diastole (dilatation) and systole (contraction); Giovanni Maria Lanfranco compared the *tactus* to an imitation of a healthy pulse in 1533; and Gioseffo Zarlino (1558, 207) wrote that the *tactus* should be regulated like the human pulse. Closer to the turn of the seventeenth century, Lodovico Zacconi (1596, Book I, chapter 33, 20v–22r) continued to equate the *tactus* with the human pulse, as did Adriano Banchieri (1614, 33) (for discussion on and translations of these texts, see Segerman 1996a, 228; Kurtzman 2003, 434–438.).

The variation of the human pulse from one individual to another, even at rest, is considerable. Even the definition 'at rest' is ambiguous. In contemporary medical language 'at rest' refers most often to the pulse of an inactive person lying down. This is certainly not what the sources refer to. When De Pareja (see Kurtzman 2003, 435) suggests that the singer strikes a foot, hand, or finger while singing, he is naturally referring to the pulse during the act of singing. This is probably why

¹⁵ While we associate the beat specifically with a conductor who stands some way away from the singers or players, this was not the case in the sixteenth century. The papal chapel did not have a musical director, and the statutes of the Cappella Giulia recommend, but do not require the *maestro di cappella* to be present during liturgy (O'Regan 1994a, 556). The task of beating the *tactus* would in many cases fall on an experienced singer. The role of the *tactus* would thus have been more of keeping the performers rhythmically together than musical expression.

Gaffurius needs to specify that the pulse he is referring to is the pulse of someone breathing evenly (see Segerman 1996a, 230–231).¹⁶

The interpretations of the pulse as a guideline for the tempo have led modern scholars to put forth varying estimates. Some are fairly exact, with Banks even proposing two specific tempos at 60 and 72 beats per minute (Bank 1972, 259). Others give a broader range: Segermann (1996a, 227) at 60 to 80 bpm; Paine (1988, 175) at 50 to 80 bpm and Kurtzman (2003, 434) at 60 to 100 bpm.¹⁷

The question remains whether later generations have taken the definitions of Renaissance theorists too literally. The theorists of the sixteenth century were writing for people of their own time: if there was such a thing as a commonly understood *tempo giusto*, why would they feel the need to describe it? One motivation could be prescriptive: the theorist was trying to guide performers to choose a tempo he felt was correct. However, I believe the references to pulse are mainly a reaction to earlier writings and are metaphysical rather than physical in nature. By tying the *tactus* to a natural human rhythm, the writers are forming a bond between nature and music and showing how music is governed by the same laws (of God) as nature. At the same time, they are forging a tie to earlier literature that connects the pulse and the *tactus*. Referring to the writings of earlier generations is typical of most learned writings of the sixteenth century: these references were an essential element of the credibility of the writer's argument in this time when argumentation based on empirical evidence was first taking form. In this context, what to us looks like a physical description might primarily be a metaphysical argument.

Despite these reservations, the references to the pulse naturally give us some guidelines to the duration of the *tactus*. It seems reasonable to assume that a beat in the vicinity of a human pulse at rest was at the core of performing music in the sixteenth century. But to what rhythmical value does this beat correlate and was the beat thought of as a constant?

¹⁶ While Segerman (1996a, 231) fails to see how this can provide any additional information compared to just mentioning the pulse, I feel that Gaffurius is trying to define what kind of pulse within the normal variation caused by exertion he means.

¹⁷ After these figures Kurtzman (2003, 435) does refer to a mid-range of 75–85 bpm as a mean. In spite of this, he returns to 60 to 100 bpm in his summary as “a general pulse standard” (Kurtzman 2003, 440). Bank (1972, 9–13), connects the tempo descriptions with a theory of natural human rhythm. According to this theory, many basic human actions, such as walking, speaking, or rocking, share the same rhythm of approximately 60 cycles per minute. The other dominant bodily rhythm, according to Bank, is the heartbeat, which he estimates at between 70 and 80 beats per minute.

The mensural notation system that not only gave the performer time signatures, but also included information on the subdivision of longer notes and the tempo relations between different time signatures was in a state of change in the sixteenth century. After 1520 binary signatures (tempus imperfectum, marked with **C**, its diminution C that implied a faster tempo or, more seldom, its augmentation C that implied a slower tempo) became the standard signature for most pieces. As the sixteenth century progressed, C became the norm in sacred music. Any triple sections within these works were performed in relation to the main time signature.¹⁸ (DeFord 1995, 1; Kurtzman 2003, 436, note 13; Paine 1988, 177.)

In fifteenth-century music theory, music written in **C** was measured in semibreves and music written in C was measured in breves. The tactus corresponded with these time units. However, by the turn of the sixteenth century, works written in C often had a semibreve tactus, and by the time Palestrina began publishing his works in the 1550s, the semibreve had become the normal tactus for both time signatures.¹⁹ Towards the end of the sixteenth century the sources start referring to a minim tactus in **C**.²⁰ In short, in the late sixteenth century the tactus in binary time could, in theory, be either an old-fashioned breve or a modern semibreve tactus for C or the traditional semibreve or new minim tactus for **C**. (DeFord 1995, 1–3.) In sacred music, whether in C or **C**, the norm was a semibreve tactus.

According to DeFord (1995, 3 and 3, note 5), the choice of tactus was dependent on taste, tradition, the skill of the ensemble and especially the character of the piece. The rhythmic nature of the work was an important clue: if the music of a piece in C predominantly moved in semibreves, minims and crotchets, then the tactus chosen would be on the semibreve. If, on the other hand, the principal note values in **C** were minims, crotchets and semicrotchets, as in late sixteenth-century madrigals, the

¹⁸ Palestrina predominately used the most common time signature of the sacred music of his time: **C**. As an example, his *First Book of Motets for Four Voices* from 1561 / 1563 consists of 36 motets, of which 31 are written entirely in **C**, four in C with a ternary section within the motet and only one in ternary time (marked with C). In the *Fifth Book of Motets for Five Voices* from 1584, nineteen of the 22 motets are entirely in **C**, while two begin with C and have a ternary section and only one begins in ternary time (marked C ₂).

¹⁹ Adrian Petit Coclico (1552) wrote that the semibreve is the common tactus of all signs of his time (DeFord 1995, 13). De Ford (1995, 1, note 1) also cites a letter from 1529 written by Giovanni Spataro, in which Spataro complains that modern musicians use only C and *sesquialtera* of the traditional signs and proportions.

²⁰ Table XIX in Bank (1972, 226–230) clearly shows the development from the breve tactus to the semibreve and even the minim tactus. Many writers of the late sixteenth-century connect the use of the brevis tactus to older music. In the early sixteenth century, the minim tactus is attached to the augmentation of **C** (i.e. C). Only close to the turn of the seventeenth century does it start to be mentioned as an alternative tactus in **C**. Some writers refer to the minim tactus as a training method for unskilled singers (Bank 1972, 231). A very early example of this trend is Martin Agricola, writing in 1528/1532 (Bank 1972, 209).

tactus chosen would fall on the minim. (Kurtzman 2003, 436–437.) Nicola Vicentino (1555, 42r–42v; see Fallows 2001, 274) connected note values with the speed of a work. If the composer wanted to create a feeling of slow movement, then he would resort to longs; breves would make the piece move in a natural way, neither slow nor fast; semibreves would give an ordinary movement; the minim faster than normal; the crotchet a quick movement; and the shortest note values a feeling of real speed. This would imply that the Renaissance musician would be able to infer the tempo of a piece not only from the time signature, but also by looking at the music and thereby could adjust the tactus to the rhythmic nature of the piece.

Determining on what note value the tactus falls would thus depend primarily on the time signature used (C or Ċ), the predominant note values and the rhythmic nature of the piece. As Bank (1972, 1) points out, notation is the primary source of information about the tempo of a work. Six examples from works by Palestrina and his contemporary Orlande de Lassus from the latter half of the sixteenth century illustrate that notation does give a fairly clear idea of the most suitable tactus.

PSALMVS TERTIVS.

Omi- ne, ne in furo- re tuo, ne in fu-
rore tuo argu- as me, ij argu- as
me, neq̄ in ira tua, neq̄ in ira tua ij
corri- pias me,

Example 1. Orlande de Lassus, *Psalmi Davidis poenitentiales* 1584, altus of *Psalmus tertius*, *Domine ne in furore tuo*.

The beginning of Lassus' penitential psalm in Example 1 represents the motet style written in C. In the soprano part of the motet, the cantus, the predominant note values are the semibreve, minim and crotchet. Although theoretically the tactus

in C is on the breve, the rhythmic values and the text setting both seem to imply that the tactus falls on a semibreve.

N° 1. Orlando Lasso. A 7. 24 CANTO

He fai alma che pensi? haurem mai pace Hau-
rem mai triegua od haurem guer-
r'eternz? Che pro se conquegl'occhi ella ne fa ce Di'

Example 2. Orlande de Lasso, cantus of Madrigal *Che fai alma che pensi?* From *Dialoghi musicali di diversi eccelentissimi autori* 1590.

Although the madrigal style was often notated in shorter note values (*note nere*, black notes, see Haar 1965) and in the undiminished time signature of C, some madrigals were notated in a style more characteristic of the sacred music of the time. The notation or rhythmic values of Example 2 do not differ radically from those of Example 1, with the exception of the fusae at the end of the third line. A semibreve tactus would thus seem to serve best in this example as well.

N° 1. Orlando Lasso. A 8. 29 CANTO

Vtto lo di ij mi dici canta canta
canta Non vedi ca nō posso Non vedi ca nō pof-
fo refiata re A che tanto cantare tanto cantare Voria che mi di-

Example 3. Orlande de Lasso, Madrigal *Tutto lo di*, cantus. From *Dialoghi musicali di diversi eccelentissimi autori* 1590.

Example 3 shows a more typical madrigal notation. The piece is written in **C** and features minims, crotchets and fusae, with text underlay even on the fusae. A semibreve tactus seems appropriate, although it would have to be slower than in the previous examples.

Example 4. Giovanni Pierluigi da Palestrina, Madrigal *I vaghi fiori*, cantus. From *Il vago alboreto di madrigali et canzoni a Quattro voci* 1597.

As Example 4 shows, Palestrina was well acquainted with the new madrigal notation. The rhythmic nature of his madrigal is quite similar to the Lassus madrigal in Example 3. Even though the semibreve tactus seems the most apparent choice, perhaps even a fast minim tactus could work well.²¹

Example 5. Giovanni Pierluigi da Palestrina (1939), *Missa Ecce sacerdos magnus* from *The First Book of Masses*, tenor of the Kyrie.

²¹ The choice of tactus definitely changes the feeling of the rhythmic nature of the piece and is thus worth exploring in practice.

In his sacred polyphony, Palestrina used a much whiter notation. Example 5 shows the beginning of the tenor part in his *Missa Ecce sacerdos magnus* from the *First Book of Masses* (1554). Here the predominant note values are semibreves, minims and crotchets. A semibreve tactus seems the natural choice. This view is reinforced by the fact that many of Palestrina's works written in \mathbb{C} do not contain an equal number of semibreves, implying that even on the theoretical level, \mathbb{C} had become detached from the measure of breves, and thus the semibreve is the natural structural unit of the music. If breve were the structural unit of the work, the number of semibreves would need to be even, but this is not the case in many of the Palestrina works.²² For most of Palestrina's sacred works written in \mathbb{C} , the semibreve tactus is thus the only realistic alternative for binary passages.²³

²² Examples of uneven numbers of semibreves are easy to find in the Casimiri edition, where note values have been halved, bar lines added and the time signature is *alla breve*. This means that all binary sections edited from original \mathbb{C} passages should form full bars of two minims in modern notation. Instances of the original semibreves not adding up can be found, amongst many others, in the following works: the ending of *Agnus Dei I* of the *Missa O Regem caeli* or the ending of the "Filius Patris" in the Gloria of *Missa Gabriel Archangelis*, both from Palestrina's *First Book of Masses*; the ending of the second part ("O patruo") of the motet *Laetus Hyperboream* from the *Fifth Book of Motets for Five Voices* (1584); and the ending of the Benedictus of *Missa Fratres ego enim accepi* from the *Book of Eight-part Masses*. Examples can be found both in the early and late works of Palestrina and they reinforce the views that in sacred polyphony, \mathbb{C} had become the norm for binary time and was measured in semibreves, thus making the semibreve the natural rhythmic figure that the tactus normally fell on.

²³ There is an extremely interesting claim in Praetorius' (1619, 48 – 49; see translation in Paine 1988, 186), where he claims that the tactus norm "in Orlando's [Rolande de Lassus'] time" was the breve in \mathbb{C} , and that this tradition was still customary in the outstanding chapels and schools of Praetorius' time. I suspect that Praetorius is name-dropping in this passage and that his referral is more generally to the earlier theoretically correct practice of a breve tactus in cut binary time that had by his time become obsolete. Praetorius does not actually recommend such a tactus and seems to be paying lip-service to the theoretically correct.



Example 6. Giovanni Pierluigi da Palestrina, *Lamentations of Jeremiah*, alto part. Facsimile of manuscript in Palestrina's hand (ca. 1560), from Casimiri (1919, tavola III).

The Palestrina excerpt given as Example 6 shows a more old-fashioned notation. The predominant note values are breves, semibreves and minims with the occasional crotchet. In this case, a breve tactus seems the most natural alternative.

By this point it will have become quite apparent that modern editions with their reduction of note values deprive the performer of much relevant information. I would suggest that it is time to do away with the convention of reducing note values. Because of the common editorial practice of interpreting most binary passages in the sacred music of the Renaissance with two minims per bar, much important information related to tempo is lost. Many good editions fortunately show the first few notes in original notation, but even these editions do not show note values where a change occurs (for example, from binary to ternary passages). The argument that modern performers would be confused by the longer note values is surely underestimating the performers.

The tempo of the tactus

Based on the examples above, choosing a suitable note value for the tactus would seem to be a fairly straightforward process. If the tactus was tied to a relatively narrow tempo range or a constant *tempo giusto*, then performing sixteenth-century music would be a fairly mechanistic affair, at least as far as the tempo is concerned. Fortunately, it seems that sixteenth-century reality was not at all mechanistic, even in this sense.

The consensus in musicological scholarship since the 1960s has been that the sixteenth-century tactus varied from one work to another and that the tempo difference between undiminished and diminished binary time (C and \mathbb{C}) was normally not at the ratio of 2:1. In the earlier part of the twentieth century, the reigning hypothesis amongst musicologists was that the duration of the sixteenth-century tactus was a constant. Especially influential were the studies of Antoine Auda and Willi Apel, both of whom spoke for an unchanged, stable tactus that correlated with the human pulse (see the discussion in Dahlhaus 1960, 22–23). This hypothesis was primarily built on the writings of the influential German theorist Sebald Heyden (1499–1561). In 1540, Heyden formulated a theory of an unchanged tactus (given in an English translation in Bank 1972, 211–213). According to Heyden, the tactus is always of one and the same duration, independent of whether it be equal, unequal or the *tactus proportionalis*.²⁴ Heyden's thinking was followed by many other sixteenth-century theorists including Gregorius Faber (1553), Eucharius Hoffman (1572) and Johann Freigius (1582) (Bank 1972, 228, 233).

More recent scholarship (for example, Dahlhaus 1960; Bank 1972; DeFord 1995 & 1996) has shown that Heyden's theory was by no means the only sixteenth-century view of tactus. In fact, it is apparent that the theorists and the practicing musicians of the century held many different views on the duration of the tactus and on applying the tactus to music (see Bank 1972, 231–233 and Table XIX, 226–230.)

The reason for much of the confusion was that the notational system was in a state of change in the sixteenth century. Much of the traditional mensural notation had become obsolete, and many musicians had trouble understanding older music: they either neglected it or interpreted it in a way that did little justice to the older

²⁴ According to Heyden (cited in Bank 1972, 211), one semibreve in O is equal to two semibreves in \mathbb{C} , three semibreves in 3 (*tripla*) and one semibreve plus one minim in *sesquialtera* (3:2);

$$\text{i.e. } \mathbf{O} \diamond = \mathbf{C} \diamond \diamond = \mathbf{3} \diamond \diamond \diamond = \mathbf{\frac{3}{2}} \diamond \diamond$$

works.²⁵ But whereas practicing musicians often had little need to pay attention for the music of old, theorists had to create theoretical systems that explained both the new and the old. Thus, the theories of the period were quite likely to be somewhat at odds with both the earlier mensural notation and the practice of their own time.²⁶

A good example of this limbo between the old and the new was the relationship between the predominant binary time signatures, C and Ċ. Theoretically, the relationship between C and Ċ was clear: the stroke indicated diminution by half. The duration of a semibreve in Ċ was thus, in theory, twice as fast as that of C. In practice, the relationship between C and Ċ (in independent pieces) was usually less than 2:1; the semibreve tactus in Ċ was faster than in C, but not twice as fast. As the breve tactus became a rarity towards the end of the sixteenth century, and both C and Ċ most often had a semibreve tactus, these time signatures began to become more strongly identified with a faster or slower tempo. In 1621 Michael Praetorius equated C with *tardè* or *langsam* (slow) and Ċ with *velociter* or *geschwindt* (fast). (Bank 1972, 255; Fallows 2001, 273; DeFord 1995, 4; Paine 1988, 189.)²⁷

The prevailing view in modern scholarship thus connects the tactus, the semibreve and the pulse in most music from the latter half of the sixteenth-century. The breve tactus could have been used in music with long note values in an antiquated style, while the minim tactus suited the new madrigal style with its shorter notational values.

An interesting, dissenting voice in the discussion on the tactus is Ephraim Segerman's (1996a & 1996b). Segerman argues that many of the references to absolute tempo, be they tied to the pulse or to other phenomena, have been neglected or misinterpreted. In short, he believes that many fourteenth- to seventeenth-century writers tied the pulse to note values that are shorter than is generally believed. Whilst Segerman's views are definitely of interest, his interpretation of the sources is not totally convincing, especially in the way he neglects to discuss the context of his main evidence (see Dahlhaus 1960, 26, on

²⁵ Bank (1972, 221) cites Juan Bermudo, who in 1554 complained that modern cantors no longer made any difference between undiminished and diminished time and did not even necessarily believe that signs unfamiliar to them even existed. Bermudo also observed that Italians and Spaniards disagreed on the interpretation of the signs. Maniatis (1979, 117) attributes a part of the difficulty in reading earlier music to printed music becoming the norm.

²⁶ This tension between the old and the new is quite apparent in Bank's (1972, 223–257) analysis of the theoretical sources of the latter half of the sixteenth century.

²⁷ In his foreword to Girolamo Frescobaldi's *First Book of Capricci* (1624), Darbellay (1984) convincingly argues for a progression of different tempos that are not in simple mathematical relationship to each other. He also shows that the relationship between binary and ternary passages is systematically *sesquialtera* (see below).

Verulus, and Kurtzman 2003, 439–440, on Praetorius). Another factor that weakens Segerman’s argument is that he does not discuss any of the sources that seem to create a direct link between a semibreve tactus and the pulse (see, for example, Bank 1972, 13; Kurtzman 2003, 435–437).²⁸

Towards the end of the sixteenth century descriptions of the tactus begin to show more tolerance for free choice in the speed of the tactus. Most of the unambiguous evidence for changes in the duration of the tactus comes from the late sixteenth and early seventeenth centuries. In 1574 Christoph Praetorius wrote that the tactus must be shortened along with the note values. Similar references to the slower tactus of C and the faster tactus of C appear, for example, in the writings of Valentin Goetting from 1586, Seth Calvisius, writing in 1594 and 1602, Adriano Banchieri in 1609 and Michael Praetorius in 1607 and 1619. (See Dahlhaus 1959, 768; Bank 1972, 249.) Joachim Burmeister explicitly states in 1601 (cited in Bank 1972, 246–247) that the tempo was chosen arbitrarily by the choirmaster. According to the sources, other factors in addition to the time signature, including the musical style, the rhythmic character, the mood, the meaning of the text, the amount of ornamentation added and local traditions would affect the choice of the duration of the tactus, along with extra-musical factors such as the occasion, the acoustics and the skill of the ensemble (Bank 1972, 249; DeFord 1995, 3; DeFord 1996, 181; Kurtzman 2003, 453–457).

Triple time sections

If interpreting the binary sections of sixteenth-century sacred music is a relatively straightforward task, the same is by no means true for ternary passages. The tempo relationship between the main binary metre of a work and passages written in ternary time is one that caused confusion in the early seventeenth century, and it still continues to do so.²⁹ Although most of the sacred polyphony written in the

²⁸ The theory of notational development proposed in these same articles, namely, that improvised notes shorter than any of the written note values gradually appeared in the notation and caused a downshift, seems to explain much of the development in sixteenth-century notation, as long as the downshift is seen as less mechanical than proposed by Segerman (1996a; 1996b). Haar (1965) makes a good case for the subtlety of this change in the *note nere* madrigals of the 1540s and 1550s.

²⁹ As Paine (1988) shows, even Michael Praetorius’ ambitious attempt at clarifying the proper usage of ternary proportions falls short of being unequivocal. In all likelihood the confusion reflects not only the transition in notation, but also the existence of many different practices.

sixteenth century is in binary time (either C, or most often \mathbb{C}), ternary passages are not at all uncommon. These passages could be marked in the music with a mensuration sign (O or Φ) and the numbers $\frac{3}{2}$ or 3, only the numbers or with blackened notes (without sign or numbers). One ternary figure could consist of three semibreves, three minims or three blackened minims. In most cases, it seems that they were interpreted as signifying the same thing.

In music theory, $\frac{3}{2}$ is referred to as *sesquialtera* (3:2 ratio, i.e. three semibreves in the ternary passage take the time of two semibreves in the preceding binary passage; $\diamond \diamond = \diamond \diamond \diamond$), and 3 to triple proportion, the *tripla* (3:1, three semibreves in the time of one; $\diamond = \diamond \diamond \diamond$). According to DeFord (1995, 5), in sixteenth-century practice the two were not necessarily distinguished from one another. Michael Praetorius (1619, Book III, 53; cited and translated in DeFord 1995, 35) wrote that some musicians wanted to discard the *sesquialtera* and *hemiolia* (writing the ternary passage with blackened notes) and just use 3 for all ternary passages. Praetorius argued for the traditional use of both, with the *tripla* (3:1) used especially in motets. But as Paine (1988, 193) points out, for Praetorius, the *tripla* and the *sesquialtera* seem to be two different ways of writing the same thing.

The ternary passages were most often written with semibreves ($\diamond \diamond \diamond$) or minims

($\downarrow \downarrow \downarrow$). If there was no defining time signature ($\frac{3}{2}$, $\frac{3}{1}$ or 3), ternary passages could in theory either be performed as *sesquialtera* or as *tripla*. According to DeFord (1995, 26), the latter alternative became increasingly common during the sixteenth century. However, the matter might be a little more complex than this appears, as according to Praetorius (see Paine 1988, 193) both the *tripla* ($\diamond \diamond \diamond$ according to Praetorius) and the *sesquialtera* ($\downarrow \downarrow \downarrow$) were equivalent to one tactus (\diamond).

The ternary time signatures often included numbers making the intention of the composer a little clearer. Adriano Banchieri (1609, 35; cited in Kurtzman 2003, 447), describes the following ratios:

$$\mathbb{C}\frac{3}{2} \diamond \diamond \diamond = \mathbb{C} \diamond \diamond \text{ (sesquialtera)}$$

$$\mathbb{C}\frac{3}{2} \downarrow \downarrow \downarrow = \mathbb{C} \downarrow \downarrow \text{ (sesquialtera)}$$

$$\mathbb{C}\frac{3}{1} \diamond \diamond \diamond = \mathbb{C} \diamond \text{ (tripla)}$$

According to DeFord's (1995) analysis of late sixteenth-century and early seventeenth-century sources and music, interpretations of the relationship between binary and ternary passages varied greatly. DeFord has found support not only for the most evident solutions, such as the ones described above in Banchieri's examples, but in some cases for duple proportion ($\diamond = \downarrow$ of preceding passage) and even indeterminate proportion, i.e. relations that are not exactly proportional, but somewhat faster or slower. According to DeFord (1995, 50–51) the less traditional solutions became more common towards the end of the sixteenth century. This is also supported by Paine's (1988, 193) interpretation of Praetorius: he believes that Praetorius' intentions are that the *tripla* and *sesquialtera* were intended to be taken at different speeds in the same way that C and \mathbb{C} signified different tactus speeds.

In Palestrina's music, the vast majority of works are in \mathbb{C} . The writing of the ternary passages varies. By far the most common is $\Phi \frac{3}{2}$ written in breves ($\diamond \diamond \diamond$), which in itself is a little confusing as the three breves seem to refer to the *tripla*, but the $\frac{3}{2}$ to *sesquialtera*. Palestrina does, however, use almost all the other possibilities as well.³⁰ As the ternary passages are sung against a semibreve tactus, the most evident relationship is *sesquialtera*:

$$\Phi \frac{3}{2} \diamond \diamond \diamond = \mathbb{C} \diamond$$

Example 7 shows a typical Palestrina transition from binary time (in \mathbb{C}) to ternary time ($\Phi \frac{3}{2}$) and back. According to the relationship discussed above, the length of the semibreve tactus in binary time (encompassing two minims) remains the same when moving into the ternary passage on the fourth staff.

In the ternary passage one tactus encompasses three semibreves, and the tactus would be beaten as *tactus inequalis* with the first two semibreves on the downbeat and the third one the upbeat. The rationale for the ternary figures written in black notation, such as the second ternary figure on the fourth staff, is in all likelihood to help the singer recognise the syncopated rhythm (Paine 1988, 200–201, shows examples of Praetorius' use of a similar notation).

The length of the tactus would thus remain the same.³¹ For the ternary passage, beating an unequal tactus would have been the natural solution as long as all the

³⁰ In the first nine books of masses, $\Phi \frac{3}{2}$ appears 41 times, whereas \circ , \odot , Φ , Φ_3 , 3 and blackened notes are used fourteen times in total.

³¹ This is the interpretation consistently used in the Casimiri edition, where \mathbb{C} has been saved as the main time signature with note values halved and all ternary sections interpreted as $\frac{3}{4}$.

parts share the same ternary rhythm.³² If one accepts the same length of duration for the tactus of the binary and tertiary passages, the assumption seems to have some direct implications for the basic tempo of the works: for the ternary passages to have a reasonable tempo, a fairly calm basic semibreve tactus needs to be chosen for the binary passages. For example, the ternary Alleluia section of the six-part motet *Assumpta est Maria* feels rushed even at MM 60, even if that tempo would seem to fit the opening of the motet quite well. This coincides with Nicola Vicentino's (cited in Schiltz 2003, 71) characterisation of the initial tempo of works in Latin: they should be *grave* (heavy or serious), as compared to the *mediocrità* (medium) of madrigals and sonnets and the *velocità* (rapid) of *villotte* and *napolitane*.

³² A good example where the *sesquialtera* relationship is almost unavoidable is the second part of the *Jubilate Deo (Laudate nomen ejus)* from the *II Book of Motets for 5, 6 and 8 voices* (1575), in which a short passage in $\Phi \frac{3}{2}$ is embedded in a C work. In most modern editions with halved note values, the binary passages are marked with a C, and the tactus falls on the minim. The ternary passage as a rule is transcribed in $\frac{3}{4}$, and a whole bar would thus have the same duration as a minim in the binary passage.

Secunda pars. 10

Singularare praesidium

O singularare praesidium qui meruisti vile-

re redemptore nostrum alium mortalem

in diuinitate in diuinitate trans forma-

tum exaudi preces seruorum tuorum et intercede pro nostra

salute te pro nostra salute et intercede pro no-

stra salute omniumque populorum populo- rum omnium omni-

umque populorum omniumque populo

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Example 7. Giovanni Pierluigi da Palestrina (1589). Motet *O lux decus Hispaniae*, cantus of part II *O singularare praesidium* from III Book of Motets for 5, 6 and 8 voices (First edition 1575).

In some, more independent ternary passages in Palestrina's works, such as the beginning of the second part (*Eia Mater*, written in Φ_3) of the famous eight-part

Stabat Mater, the *tripla* with its longer tactus (*tactus proportionalis*) seems a feasible possibility.

It is important to note that the voices of the theorists often represent the most dogmatic and conservative approach to music: diversity would probably have been much greater in practice than the treatises reveal. Choosing the best possible tempo relationship for each binary and tertiary passage is not a question of mathematics, but involves making artistic choices. It did so in the sixteenth century and still does.

Changes of tempo within the same work

Based on sixteenth- and early seventeenth-century sources it seems apparent that performers took responsibility not only for the choice of the speed of the tactus, but also for varying the speed of the tactus within a piece of music. The most important factor in this variation seems to have been the will to react to the mood and meaning of the text.

Ritardando in the final cadence was described as early as 1512 by Johannes Cochlaeus. A century later, Michael Praetorius was admonishing those musicians who rush into the last note of the piece without any hesitation. Praetorius (1619, Book III, 79–80) urged the performers to linger on the penultimate note before moving to the last note. (Bank 1972, 249; Kurtzman 2003, 454.)

The importance of the mood and meaning of the text became more visible in the sources as the sixteenth century proceeded. From the 1550s on, the emphasis seems to move from the choice of tempo to variation of tempo within a work, according to the text that was sung. Sixteenth-century Italian theorists, such as Nicola Vicentino, Gioseffo Zarlino and Lodovico Zacconi, all emphasise that the tactus of the work should be at times faster, at times slower according to the text (Bank 1972, 249).³³ Agazzari wrote in 1603 that the beat can be quickened, for example, in passages where choirs in polychoral works toss the same motif back and forth (Kurtzman 2003, 455). A decade and a half later Girolamo Frescobaldi, in his foreword to his first book of toccatas, makes a reference to the madrigals of his time, in which the speed of the beat is varied according to the affect and meaning of the words (Kurtzman 2003, 456).

³³ These writers also refer to singing *forte* and *piano* according to the sense of the text, as does Praetorius in 1619 (Bank 1972, 249; Kurtzman 2003, 454).

Their German counterparts of the early seventeenth century, Seth Calvisius and Michael Praetorius, mirror these views. Calvisius stated that the tactus can be varied according to the harmony and text of a piece. Praetorius, in turn, believed that varying the beat according to the text lends a performance dignity and grace. (Dahlhaus 1959, 768; Kurtzman 2003, 454.

According to the sources, it seems that a certain flexibility of tempo within a piece was not only tolerated, but even expected. The model set by the performance of madrigals, in which the tempo and dynamics were varied according to the text, would in all likelihood have affected also the performance of sacred music. At the same time, it is reasonable to assume that the performance practice of sacred polyphony would have been more conservative than that of secular music, but, of the writers mentioned above, at least Agazzari and Praetorius are both clearly referring to sacred music. At the very least, tempo variation between passages of different rhythmic or textual character would have been no novelty in Palestrina's time.

On beating the tactus

While the tactus has played a major role in the modern scholarly literature on tempo, scholars have not shown much interest in *how* the tactus was beaten. Yet the nature of the beat has more than a little bearing on how the music is performed. In her analysis of Zacconi's *Prattica di musica*, DeFord (1996, 181) emphasises that for Zacconi, the tactus is the single most important factor affecting the rhythmic character of a piece. Although Zacconi's interest is mostly in which note value the tactus should fall on, and which tactus (equal or unequal) to use, his comments on bad beating of the tactus show that it played a major role in performing the music.

The three basic elements of beating the tactus are its directions, its division and the continuity of motion. As the directions of the tactus movement go, most sources talk of a down-and-up movement, although some writers mention an up-and-down movement.³⁴ The division of the tactus is either equal (down and up movement of the same length) or unequal (the down movement twice as long as the up

³⁴ The difference between the two might not be that significant, but rather differences in describing the same phenomenon. Bank (1972, 230, note 11) refers to A. Pisa who describes the tactus as up and down, but whose examples show down-up. The discrepancy might be explained by the fact that the first minim of a semibreve tactus actually sounds during the upward movement of the hand, just as the first part of a bar sounds on the movement away from the first beat in modern conducting. Yet we define the first beat in the same way as most of our Renaissance colleagues as coming down.

movement). The third factor, and one that does not feature as strongly as the other two in the sources or the literature, is how continuous the movement of the tactus was. (Bank 1972, 119, 123, 231.) The last element is worth noting, as the first two easily lead to an assumption of a fairly angular, mechanical down–up movement. An emphasis on continuity would make the tactus fairly similar to the modern beat pattern in one.

Zacconi, who was a singer in Lassus' choir in Bavaria in the 1590s, shows great interest in how the tactus was beaten. Zacconi (1596, 22r) states that the tactus should be straightforward, clear and without staggering and it should lead the singers instead of following them.³⁵ Zacconi also describes several misuses that are enlightening to the modern reader. If the chosen tactus is too slow, it is, according to Zacconi, difficult to keep steady (even in tempo). If the tactus is too fast, it leads to the down–up strokes becoming unequal, with the upstroke taking up more time than the downstroke.³⁶ Against this modern idea of unity of movement are Zacconi's references to the feeling of syncopation against the beat, which seem to indicate a more angular binary division of the tactus (cited and translated in DeFord 1996, 157–160, 168, 181). Zacconi's thoughts on the tactus suggest that the beating of the equal tactus had many similarities to modern conducting in one, but with a clearer division into two halves. This division into two equal halves is quite clear in Vicentino's (1551, 8) definition of the tactus (or battuta, as he calls it): "The beat has two parts, one the descent and one the ascent, and thus of the figures in one beat, one half are placed in the first part, the other half in the second..."³⁷

Perhaps the clearest reference to the binary character of the tactus comes from Fray Thomas de Sancta Maria (1565, 57v; cited in and translated in Smith 2011, 131–132), who wrote of the importance of the mid-tactus (*medio Compas*): "...and likewise to great care with the mid-tactus, without which one can keep the tactus [only] with difficulty; for as was noted before, we see by experience that those who do not play in accordance with the tactus err in mid-tactus."

³⁵ *Il tatto deve essere schietto, chiaro, & senza titubatione, dietro di cui sono obligati andar I cantori & non esso dietro a cantori.*

³⁶ Zacconi gives a perfect description (DeFord 1996, 158) of a technical flaw that, in the parlance of the Panula school of conducting at the Sibelius Academy, was called "ice-fishing": the movement away from the beat is too quick, causing a lingering in coming down to the beat to compensate for the quickness of the up movement. The energy of the movement is almost entirely on the upbeat (Zacconi writes that it is as if the person touches things that sting or shock him), causing an imbalance in the beat.

³⁷ *La battuta ha due teste, una a lo scendere, & l'altra al salire, Dunque de le figure che vanno in una battuta, la metà si metterà nella prima testa, & 'altre nella seconda...*

The extent of the technical realization of this binary division influences the feeling of the rhythm. Two clear halves of a semibreve tactus actually come close to beating minims, whereas a more unified movement emphasises the semibreve. To make a complicated matter straightforward, the divided tactus emphasises rhythmic precision and the more smoothly beaten tactus emphasises the linear nature of the music. Translated into the notation of modern editions and modern conducting technique, emphasising the unity of the movement is equivalent to conducting the binary time passages in two, while a clearer division of the tactus into two clearly defined movements comes closer to conducting the same passage in four.³⁸ If the performers use original notation, modern beat patterns naturally become redundant, but the character of the tactus plays the same role in guiding the performers' perception of the music.

Summary and practical implications

In sum, as a starting point one can assume that the tactus of Palestrina's time would normally have been within the parametres of the human pulse at rest. Most often the tactus was on a semibreve in binary time, and contrasting cases can be deduced fairly reliably by studying the original notation. When only a modern edition is available, much of this information is unfortunately lost. Most modern editions do, however, give the original time signature, as well as the first notes of the parts in original notation. This information is often lamentably meagre, but does impart some relevant information as to the choices made by the editor.

The speed of the tactus was and is at the performer's discretion, but should make clear both the rhythmic nature of the music as well as the mood and meaning of the text. In the latter half of the sixteenth century, the ternary passages were both notated and interpreted in converse ways, but most of the Palestrina ternary passages would seem to fall under the category of *sesquialtera* (3:2) with the duration of the tactus remaining the same. Tempo variation within a work, especially between its different sections, was by no means forbidden, and might even have

³⁸ Conducting in four might not give the desired result in many cases, but a greater awareness of the minims of the original notation (the crotchets of most modern editions) can be of significant assistance to both singers and the conductor. Most modern performances of Palestrina tend to emphasize the linear nature of the music, at times at the cost of rhythmic precision. This is an area that might contain possibilities for a new approach to the music.

been expected towards the late sixteenth century, albeit this variation was in all likelihood greater in secular music than in sacred polyphony. And finally, the technical nature of beating the tactus is a relevant consideration in performing the music, independent of whether a traditional tactus or a modern beat pattern is used. Reading the sixteenth-century sources gives reason to reconsider a more rhythmic approach to Palestrina's music than we are used to.

Pitch

Some Italians quite rightly take no pleasure in high-pitched singing: they understand that it is devoid of any beauty, that the text cannot be clearly understood, and that the singers have to chirp, squawk, and warble at the tops of their voices, for all the world like hedgesparrows.

Michael Praetorius, 1619 (Book II, 16).³⁹

Standard concert-pitch defined as $a^1 = 440$ Hz is the result of an international agreement in the first half of the twentieth century. Before this the prevailing standard was $a^1 = 435$ Hz, which had been recommended by French and Austrian officials in the nineteenth century. (ODM 2011.) For the sixteenth-century musician such a standardization of pitch would have been a foreign phenomenon. There was no uniform pitch standard, and pitch standards varied from one country to another, one town to another, and might even have varied quite considerably within one city. In addition, there were multiple pitch standards for different instruments. (Kurtzman 2003, 404.) As a result, documented pitch standards vary as much as a fifth, from a major third below the present-day standard to a minor third above (Myers 2007, 290).

For singers, the variation may have been even greater. When singing unaccompanied, choosing pitch was a question of comfort and would have varied from one ensemble to another according to how high or low the individual voices were. A choir with low basses could sing at a lower pitch than one with baritone basses; and high sopranos, be they falsettists, *castrati* or boys, would naturally make a higher pitch possible. While the idea of arbitrarily choosing a pitch for a Renaissance motet might seem strange to us, it is exactly what editors of Renaissance polyphony have been doing for the last century or so: accommodating the pieces to a pitch that suits a modern mixed choir. The irony is that performers tend to adhere to these transposed editions diligently – often for reasons of practicality – instead of treating them in the same spirit as the editor.

³⁹ *Sintemahl etliche Itali an dem hohen singen, wie nicht unbillig, kein gefallen vermeynen es habe keine art, könne auch der Text nicht recht wol vernommen werden, man krehete, schreye und singe in der höhe gleich wie die Grasmägde.* The translation is by Haynes (2002, 71).

Flexible pitch

There is a whole tradition of sacred music in which flexible pitch standards still prevail: Gregorian chant. As Kreitner (1997, 276–277) points out, all chant, independent of the notated pitch, tends to be sung at approximately the same pitch. Thus, even though a chant in the I mode would be notated with a tessitura from d to d^1 , and a chant in the VII mode from g to g^1 , they would be performed at roughly the same pitch, depending on the voices of the ensemble. That this was the case in the fifteenth and sixteenth centuries, can be inferred from both writings on performing chant (see, for example, Conrad von Zabern's views in Dyer (1978)) and on the transpositions required of the organist to bring the chant of different modes to a comfortable pitch (see Mendel (1978, 48–53) for an analysis of the method proposed by Arnolt Schlick in 1511).

This same approach, where the performing pitch is chosen by the *maestro* or one of the singers *ad hoc*, can naturally be applied to unaccompanied polyphony. However, the method is not unproblematic as room for error in polyphony is considerably less than in chant: the overall tessitura, as well as the range of individual voices can much more easily become too low or too high for the singers. The use of organs in liturgy would have eliminated this problem, as the organist would in most cases have played an intonation before a polyphonic piece. Perhaps this, in part, accounts for the growing reliance on organs in the liturgy during the sixteenth century.⁴⁰

That choosing the pitch was not always without its problems is proved by Sherr's (1987, 452–455) descriptions of the practices of the Papal choir, which sang unaccompanied without the aid of any instruments. The method in use in the papal chapel was that the most senior singer of the voice part to begin the piece would intone the piece. Whether this means that the singer sang the first note, or first notes, alone before the others in the voice part joined in, or whether a new start followed the intoning of the first notes, is not completely clear from the documents.⁴¹ In any case, the *Diarii Sistini* of the early eighteenth century record many instances where the initiator of a motet or mass movement is fined for choosing an unsuitably

⁴⁰ At the same time, use of the organ restricted the freedom of the performers when choosing performing pitches. Meantone temperament, the prevailing temperament of the sixteenth century, curbs the number of 'good' keys.

⁴¹ In cases where all the voices entered simultaneously and in chant, the most senior bass was in charge of giving the pitch (Sherr 1987, 454).

high or low pitch or neglecting his duties. According to a document from 1718, when an erroneous pitch was chosen, the senior singer responsible should interrupt the singing and give a new, more suitable pitch (Sherr 1987, 454).

Zacconi (1596, 78–79) dedicates two pages of his *Prattica di Musica* to how the initial notes should be given by the *maestro* or one of the singers. According to Zacconi (1596, 78r), the *maestro* needs to recognize the mode of the music correctly and then give the intonation according to the mode: for example, that mode I should be intoned *re, fa, la* (D, F, A), mode IV *la, mi* (A, E), and mode VI *fa, ut* and *ut, sol* (F, C; C, G).⁴² If these proved to be too difficult, the simplest method was: *re, la* (D, A) for modes I, II, IX and X; *mi, mi* (E, E) for modes III and IV; *fa, fa* (F, F) for modes V and VI; and *ut, sol* (C, G) for modes VII, VIII, XI and XII. Zacconi does not specify how the intonation should be given, as he uses “*dar le voci*” (to give the tones), but it does seem he is talking about singing. In any case, it is absolutely clear Zacconi is not referring to absolute pitch as he warns against choosing pitches that are too high or low for the character of the piece or the voices of the singers (Zacconi 1596, 78v).

There was considerably less room for error in polyphony is apparent in the music of the late sixteenth century. For example, the ranges of Palestrina’s music are very constant: the Masses written in the natural clefs in the first three books of masses typically have a range from F in the bass to d² in the *cantus*.⁴³ This leaves relatively little room for maneuver. ⁴⁴ With falsettists and *castrati* in the soprano, it would seem that pitches a little lower than our present-day standard would seem more likely than anything higher. This assumption is supported by the information we have on the pitches of Roman organs.

⁴² Zacconi is referring to the intervals of the modes, not absolute pitches. The modern note names in brackets should be understood as an aid for understanding the solmisation syllables, not as absolute pitches.

⁴³ The seven Masses in the first three books in natural clefs have the following total ranges: F–d²; F–d²; G–d²; F–c²; A–d²; A–d²; and G–d². The Masses written in the high clefs (see “Chiavette”), when transposed by the fourth or fifth they imply, feature very much the same ranges in the soprano, but the bass range is somewhat lower, the lowest notes varying between D and G.

⁴⁴ As Kreitner (1997, 278) points out, notated and sung pitch grew a closer connection during the sixteenth century. This is visible in the need to use transposed modes: if the notated and sung pitch did not correlate at all, the transpositions would not be necessary.

A Roman pitch standard

According to Haynes (2002, 58–69), there were three fairly constant pitch standards in Northern Italy: *mezzo punto*, *tutto punto* and *tuono corista*. *Mezzo punto* was associated with most woodwind instruments, as well as violins, and organs were often at this pitch to facilitate combinations with these instruments.⁴⁵ Based on surviving Venetian cornetts, as well as descriptions of the organ pitches of Venice, it seems that a^1 in *mezzo punto* was in the 460s, roughly a semitone above modern A (A+1). Some instruments, such as mute cornetts were in *tutto punto*, a pitch standard approximately in the modern range (A+0).

The third standard, *tuono corista*, until 1600 normally a whole tone lower than *mezzo punto* (A-1), and after 1600 a minor third lower (A-2), was the preferred choral pitch. It was the norm for music for organ and choir, as well as vocal-instrumental music. Many writers of the sixteenth and seventeenth centuries emphasize that *tuono corista* is comfortable for singers, while the instrumental pitches are too high. (Haynes 2002, 65–67). This meant that instrumentalists, including the organist playing on an instrument in *mezzo punto* or *tutto punto*, needed to transpose downwards to accommodate for the choir.

Although the amount of information on Roman organs is meager, it all seems to point in the same direction. Many writers maintain that Roman organs were at a low pitch. Giovanni Battista Doni, writing in 1640, claimed that the organ pitches from Napoli northwards to Venice form a series of semitones. Although Doni's claim has been challenged as suspiciously neat by Mendel (1978, 75), Haynes (2002, 70–71) shows it fits other documents quite well, and that this would place the Roman organ pitch at approximately A-2.

Perhaps the most significant evidence comes from a report from 1885 that claims that the organs at St. Peter's (*Cappella Giulia* and *Cappella Gregoriana*), Santa Maria Maggiore and San Giovanni in Laterano were at $a^1 = 384$ Hz, a little below A-2 (modern $g^1 = 392$ Hz). The writer, Monsignor Bartolomeo Grassi-Landi, called this pitch *corista di San Pietro*. According to Doni, Roman organs were lowered by a semitone between 1600 and 1640. Doni believes this was possibly due to the needs of ageing castrati, as well as the great amount of *bassi profondi* available in Rome. Combined, these documents place the most common Roman pitch, the *tuono*

⁴⁵ An organ in a higher pitch was also an economically viable solution as the individual pipes needed were shorter and thus less expensive (Silbiger 2004, 370).

corista, in the vicinity of A-1 before 1600, suggesting this would be the most common organ pitch in the time of Palestrina. (Haynes 2002, 69–73.)

The figures presented above should not be interpreted too literally. Repeated tuning gradually raised the pitch of an organ to the extent that in the end the pipes needed to be shifted one position up and a new lowest pipe was added to each voice (Kurtzman 2003, 405). Even the temperature changes of unheated churches could affect the pitch of the organs substantially: according to Haynes (2002, 35) a temperature difference of seven degrees causes a fluctuation of 5 Hz; and Kurtzman (2003, 405) cites a report that claims a 20 Hz fluctuation due to a twenty-degree change in temperature in an unheated church. This means that sixteenth- and seventeenth-century pitch standards need to be taken with a pinch of salt, or perhaps rather understood as variables within certain limits.⁴⁶

Summary and practical implications

When performing Palestrina unaccompanied, the flexible pitch used by the Papal choir, and implied by Zacconi as normal practice, should act as a guideline: the best pitch is the one that suits the voices of the choir. It is important to remember that this applies both to the original notation and modern editions.

The Roman ensembles of Palestrina's time with their male sopranos seem to lead us to lower and darker sonorities than we are used to in most performances of Palestrina's music. Doni's reference to Roman *bassi profondi* is interesting and again leans in the same more sombre direction. That this tendency is then enforced by the information we have on the pitch standard of Roman organs is significant: the organs at Palestrina's workplaces seem to have been tuned at approximately A-1 (a¹ = ca. 415 Hz). Even if the organists were experts at transposition and the performance pitch of a Palestrina work was not always A-1, it does provide us with a starting point, and one that is not far from modern pitch standards.

One central element of pitch has yet to be discussed: the transposition of pieces written in the so-called high clefs or *chiavette*. Because this element is of such

⁴⁶ This is also true of the woodwind instruments: the range of pitch in the curved cornetts reported in Haynes (2002, 60, 425–428) is 415 to 504 Hz. However, the majority of instruments are between 460 to 471 Hz.

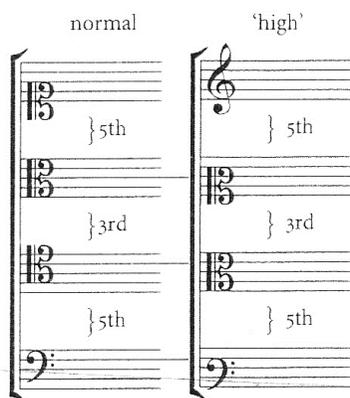
importance to the interpretation of Palestrina's music, it deserves a chapter of its own.

Chiavette

How many of us, it is troubling to reflect, were first drawn to the Renaissance by the sheer glorious sound of the Missa Papae Marcelli (treble-mezzo-alto-alto-tenor-tenor) in recordings that may amount to a lie? (Kreitner 1998, 329)

In the polyphonic music of the sixteenth century, two main clef combinations were used. The *chiave naturali* or natural clefs were in most cases written for music for four voices with three C-clefs and one F-clef (soprano C1, alto C3, tenor C4 and bass F4).⁴⁷

The *chiave alte* or *chiavette*, i.e. the high clefs, on the other hand, were written with the following combination: descant (G2), mezzosoprano (C2), alto (C3) and tenor (C4) or baritone (F3).



Chiave naturali (normal) on the left, *chiave alte* or *chiavette* (high clefs) on the right (Johnstone 2006, 30).

As a result of these clef combinations, it seems there are two different tessituras for choral polyphony. For example, if we take a look at the five Masses of Palestrina's third Book (1570), the following table (Table 1) indicates the highest notes of the soprano line, as well as the whole bass line range. The b refers to whether the piece

⁴⁷ The numbering refers to which line of the staff the clef indicates the c, f or g to be on. C1 indicates the lowest line, i.e. the line that with the descant clef produces an e.

has a flat sign or not, a feature that will have significance in this discussion at a later stage.

	<i>naturali</i>	<i>chiavette</i>	b	S highest	bass range
<i>Spem in alium</i>	x		no	g ²	c–f ¹
<i>Primi toni</i>		x	yes	g ²	A–d ¹
<i>Missa brevis</i>		x	yes	g ²	A–d ¹
<i>De Feria</i>		x	no	d ²	A–d ¹
<i>L'homme armé</i>		x	no	g ²	A–d ¹
<i>Repleatur os meum laude</i>		x	no	d ²	G–c ¹
<i>De beata virgine</i>		x	yes	g ²	A–d ¹
<i>Ut, re, mi, fa, sol, la</i>		x	no	g ²	A–e ¹

Table 1. The ranges of the masses of Palestrina's Third book of Masses 1570.

The soprano line in two of the eight masses appears to be a fourth lower than in the other masses. The bass ranges do not show the same kind of variation, although they tend to be a little lower in the masses in *chiave naturali*. In the other voices, the difference is clear: if we compare the range of the voices in the Kyrie and Sanctus⁴⁸ movements of five masses (Table 2), we notice a definite pattern.

	soprano	alto	tenor	bass	
<i>Missa Ecce sacerdos magnus</i> ⁴⁹ (<i>chiavette</i>)					
<i>Kyrie</i>	d ¹ –e ¹	g–a ¹ ,	f–a ¹	c–e ¹	
<i>Sanctus</i>	d ¹ –g ²	g–b ¹	g–a ¹	c–e ¹	
<i>Missa Sine nomine</i> ⁵⁰ (<i>naturali</i>)					
<i>Kyrie</i>	e ¹ –d ²	g–g ¹	d–e ¹	A–a	
<i>Sanctus</i>	c ¹ –d ²	g–g ¹	c–f ¹	A–c ¹	
	soprano	alto	tenor I	tenor II	bass I & II
<i>Missa Papae Marcelli</i> ⁵¹ (<i>chiavette</i>)					
<i>Kyrie</i>	f [#] –g ²	g–c ¹	f–a ¹	f–a ¹	c–d ¹
<i>Sanctus</i>	g ¹ –g ²	a–c ²	g–a ¹	g–a ¹	c–d ¹
		soprano	alto	tenor	bass
<i>Missa Brevis</i> ⁵² (<i>chiavette</i>)					
<i>Kyrie</i>		d ¹ –f ¹	bb–bb ¹	f–f ¹	A–c ¹
<i>Sanctus</i>		e ¹ –g ²	g–c ¹	f–a ¹	Bb–d ¹
	soprano	alto	alto II	tenor	bass
<i>Missa Tertia</i> or <i>Missa O magnum mysterium</i> ⁵³ (<i>naturali</i>)					
<i>Kyrie</i>	c–d ²	g–a ¹	g–g ¹	c–e ¹	G–a
<i>Sanctus</i>	c–d ²	e–a ¹	f–a ¹	c–e ¹	G–a

Table 2. Ranges of voice parts in *Kyrie* and *Sanctus* movements in the Masses of Palestrina's *III Book of Masses*.

⁴⁸ The Kyrie and Sanctus were chosen as contrasting movements.

⁴⁹ From the I Book of Masses 1554, ed. Luisi 2002.

⁵⁰ From the II Book of Masses 1567, ed. Casimiri 1939a.

⁵¹ From the II Book of Masses 1567, ed. Casimiri 1939a.

⁵² From the III Book of Masses 1570, ed. Casimiri 1939b.

⁵³ From the IV Book of Masses 1582, ed. Casimiri 1940.

In the Masses written in the *chiave naturali*, the soprano does not rise above d^2 . The alto predominately moves within the octave $g-g^1$ and the tenor in what is almost a baritone range: $c-e^1$. The bass lines are wider in character, moving from G to c^1 . This tessitura covers nicely the traditional 22 notes of the *Gamut* (from G to e^1 ; see, for example, Routley 1985, 61), which was considered to show the limits of the human voice.

The Masses written in *chiavette* show a completely different vocal range. The soprano lines move between d^1 and g^2 and look very much like typical modern choral soprano parts. The alto falls mainly between g and a^1 and the tenor between f and a^1 . This results in fairly low alto parts and consistently high tenor lines. The tessituras of the bass lines in the *chiavette* masses do not differ as significantly from the *chiave naturali* masses as those of the other voice parts. The exception is *Missae Papae Marcelli*, in which the bass lines do not feature any note below c .

These two clef combinations do not imply two different types of performing ensembles (ATTB and SATB in modern terms). There is strong evidence in the theoretical treatises of the sixteenth and especially the early seventeenth centuries to suggest beyond reasonable doubt that the *chiavette* implied downward transposition by a fourth or a fifth. These are presented with great lucidity in an article by Andrew Johnstone in *Early Music* 2006.

The origins of the practice

The origins of the practice lie in the problem caused by the established clef combination of fifteenth-century polyphony for four voices (C1, C3, C4, F4) and the unsuitability of the C4 clef in the tenor for some chant melodies. The clef combination, where the cantus clef is a fifth higher than the alto, the alto a third higher than the tenor, and bass clef a fifth lower than the tenor, was ideal for fugal responses at the fifth.⁵⁴ As the chant melodies were most often written in the tenor, the suitability of the C4 clef for the chant melodies was crucial for the composer. For modes I, III, IV, VI and VIII, which move mainly between c and f^1 , the C4 clef is perfect (see Example 1). In mode II, the range takes the voice down at least to A , in mode V the melodies often go above f^1 and in mode VII to g^1 and thus above or below

⁵⁴ The responses T-B and S-A could be written on the same lines of the staves with the clefs taking care of the transposition.

the staves.⁵⁵ The most elegant solution to notate these modes (II, V and VII) was to change the tenor clef (C4) to an alto clef (C3, see Example 2). (Johnstone 2006, 31-34.)



Example 1. Mode I with C4 clef from Vicentino's *L'antica musica ridotta alla moderna prattica* 1555 (44v).



Example 2. Mode VII with C3 clef from Vicentino's *L'antica musica ridotta alla moderna prattica* 1555 (46r).

If the composer changed the clef of the tenor and wanted to retain the 5th-3rd-5th combination of the clefs, changing the clefs of the other voices would be the natural consequence. This led to the clef combination of G2, C2, C3, F3, i.e. the *chiavette*. This development took place gradually and only became the norm by the early sixteenth century. (Johnstone 2006, 34.)

Explicit descriptions of transposing the pieces in *chiavette* are from the early seventeenth century, but there is corroborating evidence of the practice from the 1500s. To this evidence belong works written in mixed clefs, i.e. parts of the work in *chiave naturali* and other parts in *chiavette* (Parrott 1984, 496). An example can be found in Palestrina's *Missa de Beata Virgine* from the II Book of Masses. The Credo is written in *chiave naturali* and the other movements in *chiavette*. Non-transposition of the movements in *chiavette* would lead to extreme ranges and a surprising shift in key and character.

⁵⁵ That the chant melodies were written at these pitches did not imply that they could not be performed at a much more accessible pitch. This is clear, for example, in Conrad von Zabern's (1474) advice of *mediocriter cantare*, to sing in the middle register and to choose different pitches according to the solemnity of the occasion (Dyer 1978, 211).

Evidence for transposition includes a publication of Handl's *Missa Adesto dolori meo*, written in *chiavette*. A version of the Kyrie and Gloria in organ tabulature is a fourth lower. Songs for lute and voices have the same discrepancy, as do written-out organ accompaniments. Some pieces, such as Willaert's *Veni Sancte Spiritus*, appeared in two sixteenth-century sources, one in *chiavette* and one in *naturali*, the latter being written a fourth or a fifth lower (Johnstone 2006, 36). Instrumental bass parts, which started appearing in the last decades of the sixteenth century, reinforce the rule. A good example is the organ part of Victoria's collection of 1600, in which the organ part includes the rubric *Ad quartam inferiorem* (a fourth lower) at the beginning of the first two Masses written in *chiavette* (O'Regan 2009, 7).⁵⁶ Johnstone (2006, 40) also shows the discrepancy between the sung bass line and the instrumental bass in an edition of Palestrina's *Ecce tu pulcher es* from the *Canticum Canticorum*.

As we saw earlier, the original use of the *chiavette* was tied in with finding a suitable way of writing certain modes for the tenor, i.e. a technical solution that kept the tenor on the five lines of the staff. After the tenor voice ceased to be tied to the chant melody, the custom of writing in *chiavette* continued. Kurtzman (2003, 642) estimates that two thirds of Palestrina's works are written in *chiavette*. The reason is that the *chiavette* offered an elegant way of notating pieces that were lower than usual (Johnstone 2006, 40).⁵⁷

Transposition

The sixteenth-century evidence tells us that the pieces in *chiavette* were to be transposed and that the transposition is often a fourth or a fifth. Four writers of the early seventeenth century, Adriano Banchieri (1601, 22–23), Michael Praetorius (1619, Book III, 80–81), Silverto Picerli (1631, 192) and Giovanni Battista Doni (1640, 250–252), all give explicit advice on the transposition: where the *chiavette*

⁵⁶ O'Regan (2009, 7–10) argues quite convincingly that the lack of such a rubric in the later *chiavette* Masses of the collection is due to establishing a practice in the first two and such guidance being rendered redundant.

⁵⁷ Palestrina's profuse use of the *chiavette* is in all likelihood the result of adhering to the practice he was brought up in. In the first eight Books of Masses, Palestrina's choice of clefs seems to be tied to the mode of the Mass. All the Masses in the III, IV and VI modes are in *chiavi naturali*, and all the Masses in the II or transposed I mode, as well as the Masses in the VII mode and modes IX and X are in *chiavette*. Only mode VIII sees a fairly even distribution (4 -3). A closer analysis of the Palestrina's works in the different key combinations, and especially the ranges of the individual voice parts, might bring more light on the matter.

has a flat sign, the transposition is down by a pure fourth, and where there is no flat sign, transposition of a pure fifth is appropriate (for discussion on and translations of these sources, see Parrott 1984, 493-494; Johnstone 2006, 44-45 and appendixes 1 b–d). Among the theorists only Thomas Morley, writing in the late sixteenth century, recommends against transposing pieces in the high keys downwards (Myers 2007, 295).

If we now return to the ranges of the *Missa Papae Marcelli*, we notice that with transposition the ranges change radically. Untransposed, the beginning (Example 3) has the look we are quite used to associating with polyphony from the late sixteenth century.

Kyrie

The image shows a musical score for the beginning of the Kyrie from the Missa Papae Marcelli. It features six vocal parts: CANTUS, ALTUS, TENOR I, TENOR II, BASSUS I, and BASSUS II. The music is written in G-clef (one sharp) and 4/4 time. The lyrics are "Ky - ri - ee - lé - i - son, e -". A circled number "5" is above the Cantus staff in the second measure. The score shows the beginning of the piece, with the Cantus part starting on a high note and the other parts following in a similar pattern.

Example 3. *Missa Papae Marcelli: Kyrie* (ed. Casimiri 1939b)

Transposition makes the work seem quite different. As the work is in the seventh mode (Bianchi 1995, 443), it does not have a flat sign. This, according to the rules of the early seventeenth century writers, implies a downward transposition of by a pure fifth. This would lead to the following ranges in the *Kyrie*: soprano h–c¹; alto c–f¹; tenor I Bb–d¹; tenor II d–d¹; bass I F–g; and bass II F–g. The ranges of the *Sanctus* would, in turn, be: soprano c¹–c²; alto d–f¹; tenor I c–d¹; tenor II c–d¹; bass I F–g; and bass II F–g.

It is easy to see how transposition radically alters the beginning of the *Kyrie* (Example 4):

Down a fifth from high clef original

I: Kyrie

Giovanni Pierluigi da Palestrina
(1525-1594)

The image shows a musical score for the Kyrie section of a Mass by Giovanni Pierluigi da Palestrina. The score is transposed down a fifth from its original high clef. It features six vocal parts: CANTUS [Alto], ALTUS [Tenor], TENOR [Baritone], TENOR [Baritone], BASSUS [Bass], and BASSUS [Bass]. The music is in 4/2 time and D minor. The lyrics are "Ky - rie e - lei - - son. Ky - rie".

Example 4. *Missa Papae Marcelli: Kyrie*. Transposed down a perfect fifth (ed. Jones 2010)

However, Praetorius (1619, Book III, 81; cited and translated in Parrott 1984, 494) writes that the Mixolydian (mode VII), Aeolian (mode IX) and Hypoionian (mode XII) modes sound dull if transposed by a fifth and recommends transposition by a fourth. Thus a transposition of a pure fourth in the case of Palestrina's mass would be an alternative with the backing of a highly respected early sixteenth-century musician.

In both cases the sonority produced is quite detached from the "sheer glorious sound" Kreitner describes in the citation at the beginning of this chapter. The soprano line could well be sung by a countertenor; the alto is in a fairly comfortable tenor range; and the tenor lies within reach of baritones. The most telling difference would in either transposition be in the bass: the high baritone parts become full-blooded bass lines. The doubled bass lines would produce a more sombre and sonorous sound than the bright sound typical of most recordings of the mass. With the transposition of the works written in *chiavette*, all of Palestrina's pieces settle into approximately the same range, from F to d². Even with some freedom to choose the pitch at which the music was performed, the modern F to d² would probably

have sounded more familiar in the composer's ears than performances with high sopranos.⁵⁸

Summary and practical implications

Although the historical reason for the use of the transposed clefs is in the notation of chant melodies, the *chiavette* were used in the sixteenth-century as an elegant means to notate works that were lower than normal, and, at least in the works of Palestrina, almost schematically in certain modes. Although the theoretical literature that explicitly gives rules for the transposition implied by *chiavette* is from the first decades of the seventeenth century, there is enough supporting evidence from the 1500s to make the question quite clear: pieces written in the high clefs were to be transposed down a fourth if there was a flat sign in the music and by a fifth if there was no flat sign.

When applied to Palestrina's music, the rules of *chiavette* transposition make a lot of sense. Without the transposition, Palestrina's music seems to be divided into two groups, one roughly a fourth higher than the other, and seemingly written for two different types of ensembles. As we have no knowledge from other sources of such a division, the more likely explanation is that the pieces written in the high clefs demand transposition downwards by a fourth or a fifth. This changes the character of many of Palestrina's well-known masses and motets, including the *Missa Papae Marcelli*, radically.

Besides the change in the overall range, the great benefit of *chiavette* transposition is that every voice part seems to find a natural range. The soprano is within reach of adult falsettists (modern countertenors), the alto is in a natural range for high, light tenors while the tenor becomes a baritone line and deep basses come into their own on the bass line.

The exact amount of transposition is not important. What is important is that even the pieces written in *chiavette* sound at approximately the same range as the Palestrina works written in natural clefs. In this manner the darker and more

⁵⁸ This perhaps echoes in the words of Gregory Martin (1969, 101), an English Jesuit, writing of the papal chorus in 1575: "...no descant, but such pricke song...". I assume that by "no descant" Martin is referring to the lack of high soprano voices.

intense nature of Palestrina's music is revealed in a way that untransposed performances will always struggle to reach.

Musica ficta

And yet we are still very far from a generally accepted musicological theory of musica ficta and from a commonly employed set of editorial procedures for dealing with written and implied accidentals in early music (Berger 1987, xii).

Musica ficta – false, imagined or invented music – is the practice of adding accidentals not marked in the original notation to the music in performance.⁵⁹ The term only makes sense when juxtaposed with *musica recta* – real or correct music. In medieval and early Renaissance music theory *Musica recta* signified the group of notes that formed the backbone of music. These encompassed 20 notes from G to e² divided in seven hexachords, and included all the white keys of the keyboard between these extremes plus b^b and b^{b1}. All other notes were *musica ficta*.

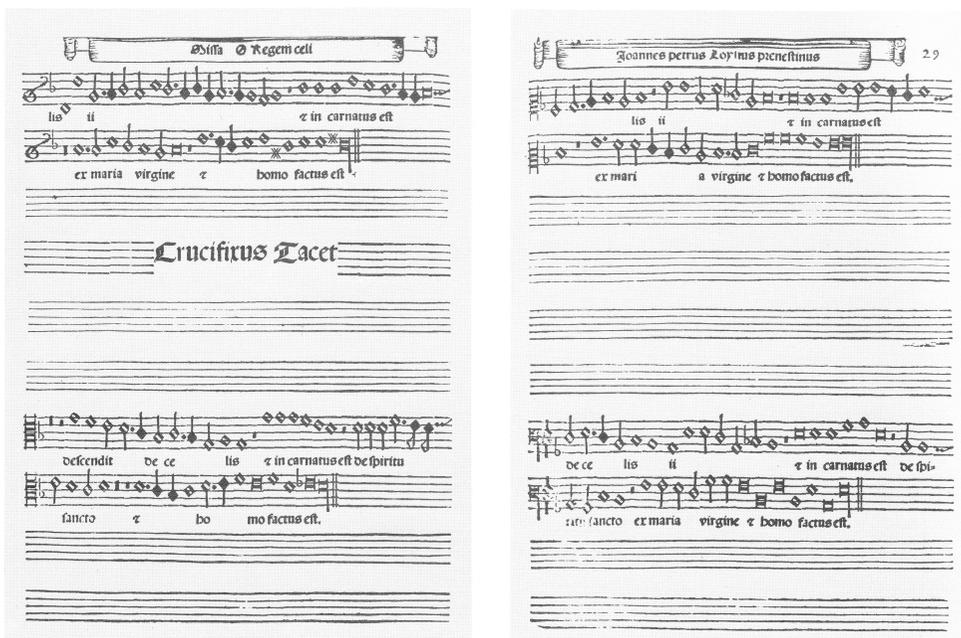
Before the sixteenth century, as a rule, only the *musica recta* notes were written in the music by the composer. The *musica ficta* notes, in modern terms accidentals, were added by the performers according to a set of rules or according to the oral tradition of a certain work.

During the sixteenth century more and more *musica ficta* found its way into the printed and copied music. In part it was added by the scribes and performers, but also by the composers themselves. Palestrina's music is a good example of this development.

In Palestrina's First Book of Masses (1554) there is very little printed *ficta*. For example, in the *Missa O regem caeli* there are 26 instances where a flat or a sharp has been added.⁶⁰ These appear only on B flat, B natural and E flat. It is apparent that with his first publication, Palestrina wanted to emulate the great masters of the previous decades, especially Josquin. The book leans stylistically to the Franco-Flemish tradition and shows an awareness of the theoretically correct, including the traditional sparse use of *musica ficta*.

⁵⁹ This is, as Wegman (1997, 265) points out, an anachronistic formulation. For the medieval and Renaissance theorists *musica ficta* was what transgressed the boundaries of the notes of the Gamut. It did not necessarily have anything to do with what we see as accidentals.

⁶⁰ According to Routley (1985, 62) sharps, most often in the shape of a doubled x, and naturals were used almost interchangeably until the sixteenth century. In Palestrina's First Book of Masses, of these two, only sharps are to be found. Thus the b natural in the discantus at the end of the *...et homo factus est* of the Credo of *Missa O regem caeli* and the f sharp in the discantus at the end of the Credo of *Missa Virtute magna* are both marked with the same sign: a double x (see Example 1).



Example 1. The ending of the *Et incarnatus* of the Credo of Palestrina's *Missa O regem caeli* from the *First Book of Masses* (1554).

Example 1 shows the ending of the first section of the Credo from *Missa O regem caeli*. In choirbook style, all four parts are written on the same opening (roughly 40 cm high and 50 cm wide), *discantus* (soprano) and tenor on the page on the left and *altus* and *bassus* on the right. In the *discantus*, there are two sharps at the end of the passage denoting a cadential B natural and a *tierce de Picardie*. In the tenor there is an E flat at the cadence; in the altus E flat midway through the first line; and the bass has E flat a semibreve after the altus leading to a bass-alto perfection on D.

Just to show how threadbare the original printed text is, a comparison with the Haberl (1880) edition is enlightening. It has 26 flats or sharps in the Sanctus alone. Over the Mass, the by no means adventurous Haberl edition has roughly 150 sharps, naturals or flats, including the original ones in the 1554 edition. The notes affected include not only the B flats, B naturals and E flats of the 1554 edition, but also C sharps and F sharps.

Example 2. The ending of the *Et incarnatus* of the Credo of Palestrina's *Missa O regem caeli* from the *First Book of Masses*, Haberl (1880) edition.

Example 2 shows the same passage from the Haberl edition. Haberl's *ficta* is placed above the note heads. The most important differences are the leading tones on the F sharp in the soprano and C sharps in the tenor and soprano. In addition, Haberl adds an E flat in the bass to create a Phrygian cadence between the bass and tenor.

Choirbook *MS Cappella Giulia XV.22* from the second half of the sixteenth century contains a set of Lamentations by Palestrina. The *ficta* of this choirbook is a far cry from that of the *First Book of Masses* described above. It seems that practically all the *ficta* was written into the music, and in some cases even added afterwards. Besides the B flat and B natural and E flat, also F sharps, C sharps and G sharps are abundant. This coincides with Routley's (1985, 60) view that composers began marking *ficta* to an increasing degree during the sixteenth century. As one would expect the singers of St. Peter's to be experienced professionals who could be expected to master the rules of *ficta*, the comprehensive nature of the *ficta* in *CG XV.22* would seem to testify that written-in *ficta* had become the norm rather than the exception. This is consistent with Bent's view (2012) that by 1600 "full notation was largely in place".

Routley (1985, 60) explains this development through the spread of printing, which made the music accessible to a wider public not equally skilled in applying *ficta*. Also the rise of chromatic music in the latter half of the sixteenth century made

marking all or at least most accidentals necessary. In much of the latter music of Palestrina, *ficta* is thus not a major problem. But as we have seen in the First Book of Masses, this is not necessarily true of Palestrina's earlier works. And even if it is not a major problem, there is still some unmarked but necessary *ficta* even in the later works.

As long as one sings from modern scores in which the editors have taken on themselves to add *ficta*, one naturally has a fair text to sing. But if one wants to evaluate the editors' choices, or has to sing from an edition with no extra markings, not to mention use facsimile scores of the sixteenth century with only scant *ficta*, by what methods could one arrive at a sensible reading with the necessary *ficta*?

Solmisation

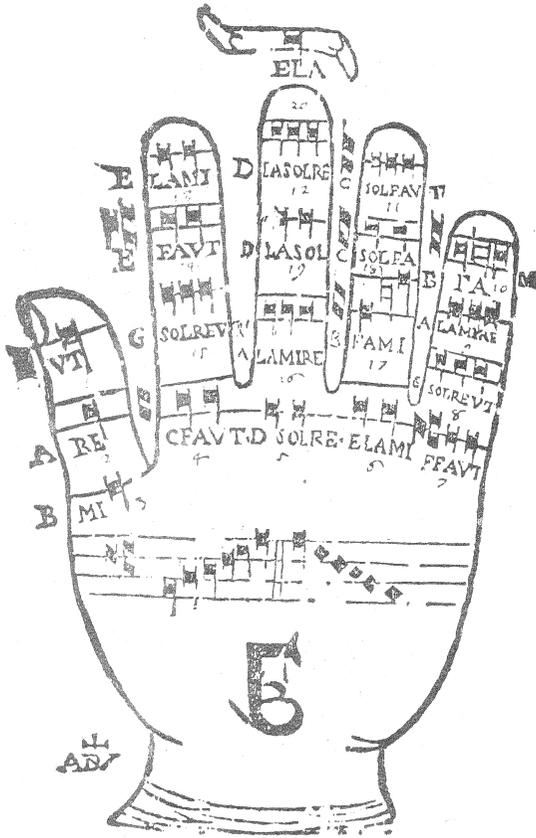
As usual, there is no easy way out. Understanding the rules requires a grasp of the way medieval and Renaissance singers went about their art. An important part of their set of skills was solmisation. Even though this art was in decay in the sixteenth century, most of the rules governing *ficta* were expressed through solmisation syllables (Bent 2012). It is also very likely that most of Palestrina's singers, as well as Palestrina himself, had been trained to master the system in their formative years in the first half of the sixteenth century.⁶¹

Medieval and Renaissance solmisation is related to modern *solfège*, but there is a major difference: the method is not based on octaves (seven note names) but hexachords (six note names: *ut, re, mi, fa, sol* and *la*). There were three different types of hexachords: one based on G, called the hard hexachord; one based on C, the natural hexachord; and one based on F, the soft hexachord. Each of the hexachords had the same structure: tone, tone, semitone, tone, tone. There were three overlapping notes from one hexachord to the next. Thus the *Gamut* (or whole scope of *musica recta*) was covered by seven hexachords.⁶² The Gamut was most often

⁶¹ It may also be that the decay of the system has been exaggerated. A Thomas Morley citation in Mendel (1978, 53, note 50) shows that Morley still thought in 1597 that a staff signature of two flats would throw singers off because they would not know how to solmise such a piece.

⁶² Berger (1989, 108) describes the Gamut as encompassing both *musica recta* and *musica ficta*. Routley (1985, 61) equates it with *musica recta*. Fallows (2012) explains that it was originally a contraction of the name of the lowest note G, gamma ut, but with time was also used to describe the whole hexachord system and even later, range, specifically the range of notes in the Guidonian hand (*musica recta*).

presented through the *Guidonian hand* (Picture 1). Picture 2 shows the overlapping seven hexachords that covered the *Gamut*.

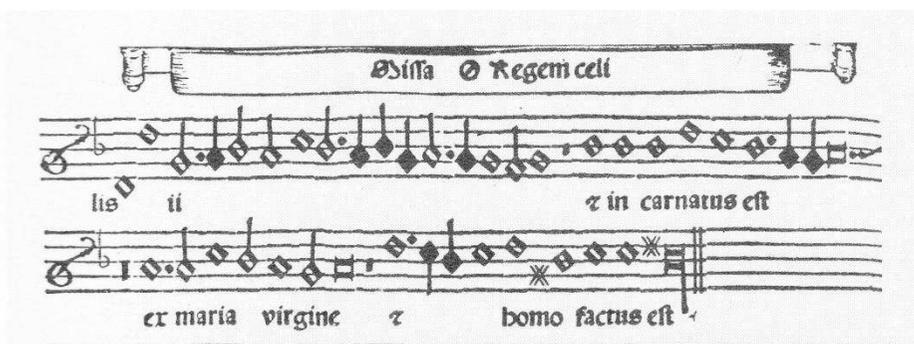


Picture 1. The Guidonian hand showing the *musica recta* notes, from *Prattica di Musica* by Lodovico Zacconi (1596, 14v).

The singers would approach a phrase in the music by choosing the best suited hexachord and give each note a solmisation syllable. If the phrase did not fit in one hexachord, a mutation, movement into another hexachord (on the common notes of the hexachords) would be made. In an ascending passage, if possible, the mutation was made on the syllable *re*, and in a descending passage, if possible, on a *la*. (Routley 1985, 60–61.)

This brings us to the crux of the matter: until the early sixteenth century, the accidentals written into the music referred not so much to a semitone change in the pitch, but a clarification of the intervallic context around these notes affected by the accidentals. This becomes clearer if we look at the role of B^b and B natural: in the

begin in the same hexachord: *la, sol, fa, sol, la*, but the sharp would necessitate a shift into another hexachord (on G) for the final last four notes: *mi, fa, fa, mi*.⁶³



Example 3. The *cantus* of Example 1.

In the same way, in example 1, at the beginning of the extract, the bass would be singing in the natural hexachord (on C) until the flat sign forces a mutation into another hexachord as it demands a *fa* on the e flat. In this case the hexachord is a *ficta* hexachord, because it is in B^b, and not one of the three *recta* hexachords (F, C or G) shown in Picture 2. The general rule was to return to a *recta* hexachord as soon as possible, which implies that the bass singer would then begin the *et incarnatus* in the soft hexachord on F (Routley 1985, 62). The choices were limited by the staff signature. In the soft keys, that is keys with a b in the staff signature, one used only the natural and soft hexachords and in the hard keys (ones without a b), one used only the natural and hard hexachords (Smith 2011, 30). As music transgressed the boundaries of *musica recta* more and more often and especially as it grew more chromatic, the distinction between *ficta* and *recta* hexachords and notes disappeared and traditional solmisation became more an educational method than a conceptual representation of the music (Wegman 1997, 269–270).

Many of the rules by which Renaissance musicians added *ficta* to the music they performed have their roots in medieval or early Renaissance practice and theory. As we saw in the extract from Palestrina's early mass, the skill to apply these principles was still very much in demand in the 1550s, at least in the conservative Roman practice. Understanding the principles of solmisation is thus a prerequisite for adding *ficta* to the music, as well as evaluating the *ficta* of the editors of modern scores.

⁶³ As Berger (1987, 144) points out, cadential formulas with added accidentals could, according to some theorists, also be solmised as if there were no sharp or flat added. In this case the last four notes would then be *fa, sol, sol, fa* in the same hexachord on F.

An interesting addition in the discussion on the benefits of understanding and mastering the solmisation method is Smith's (2011) interesting argument that Renaissance musicians gave the different solmisation syllables inherent features of sound color and character, perhaps even intonation. Thus, for example according to Agricola (see Smith 2011, 26), *ut* and *fa* should be sung mildly and softly; *re* and *sol* are neutral in sound; while *mi* and *la* should be sung in a stronger, manlier way than the other notes. Although Smith's theory is beyond the scope of this study, it does show that understanding and using solmisation could deepen our understanding of not only *ficta*, but also the character of the music itself.

But as the art of solmisation is still something of a rarity amongst performers of Renaissance polyphony, it is important to try to translate the concepts used by singers using the solmisation method into a language modern performers can use while using both modern scores and facsimiles.

The rules

As Bent (2012) mentions, scholars have presented many different summaries of the rules for *musica ficta*. The following is a compilation from Routley (1985), Berger (1987; 1989), Wegman (1997) and Bent (2012). The division into melodic and harmonic principles is implied in Bent, but the manner of division and the subdivision is mine.⁶⁴ It is important to note that this is not a list of priority; in fact, the harmonic rules are overriding in clashes between the rules. It is also worth pointing out that no systematic summaries of the rules survive from the sixteenth century: all sets of rules presented by scholars are compiled from many different sources. Perhaps the most extensive analysis of the fifteenth- and sixteenth-century sources can be found in Berger (1987).

The melodic rules, with the exception of the rule on imitation, govern individual melodic lines. They can be inferred from seeing only the singer's own part, which was the prevailing reality for singers. Even in cases where all the voice parts were written on the same page (as in Example 1), following the other voice parts while singing one part would have been extremely difficult. It seems likely that the

⁶⁴ Berger (1987) applies much the same division, but uses the terms horizontal relations (my melodic rules) and vertical relations (my harmonic rules), which are less anachronistic in nature. I have here chosen clarity over historical fidelity.

In Example 5 the *altus* ascends from d^1 to a^1 , the *la* or sixth note of the natural hexachord, and makes a step above the *la* and returns to the *la*. According to the *fa super la* rule, the note above should be *fa*, or bb^1 . In this case, as in many others, the *fa super la* rule eliminates the tritone between f and b , but also makes sense harmonically, as the whole score proves (see Example 6).

Et re-sur-re-xit ter-ti-a di-e, ter-ti-a di-e

Et re-sur-re-xit ter-ti-a di-e, ter-ti-a di-e

re-sur-re-xit ter-ti-a di-e, ter-ti-a di-e

Example 6. Extract from the *Crucifixus* of Palestrina's *Missa Spem in alium* from the *Third Book of Masses*, 1570 (Haberl 1881), all voices.

2 Leading notes

Where the melodic line dips below the previous note and then returns, the lower note is sharpened. This applies especially to cadences, but is often also the case elsewhere in the music. In Example 2, the F sharps and C sharps of the *cantus* and the C sharps in the tenor are typical examples of this rule.

um Al-le-lu-ja! et

num meum Al-le-lu-ja!

Example 6. *Cantus* and *altus* extract from *Alleluia! tulerunt Dominum* from Palestrina's *First Book of Motets* (de Witt 1881).

Example 6 shows returning-note figures in the *discantus* ($d^2 - c\#^2 - d^2$) and the alto ($g^1 - f\#^1 - g^1$). Both have cadential roles, but the need for the sharp is quite apparent in the melodic shape. The rule only applied (in original, untransposed keys) to notes below D, G and A, as well as C when there is a flat in the staff signature. Three *recta* notes, F, Bb, and C when there is no flat in the staff signature, already have leading tones below them, so no sharpening is necessary. The rule does

not apply to E (because it was approached through the Phrygian cadence via F); nor to B natural.

However, singing two consecutive semitones, for example B \flat –A–G \sharp , in the same melodic line is normally made impossible by the practice of not mutating between *mi* and *fa*, and is in theory forbidden. However, if no other harmonic solution is possible, passages with consecutive semitones can be used. (Routley 1985, 67–68; Berger 1987, 85–87.) Although these instances seem unlikely in Palestrina, there is a passage in the first motet of the *Canticum Canticorum* (1583/1584), in which both accidentals are printed (Example 7).⁶⁶ The e \flat^2 in the soprano would seem to be a melodic (*fa* super *la*), and the c \sharp^2 a leading note or cadential requirement (see rule 5).

The image shows a musical score for a vocal line and piano accompaniment. The vocal line is written in a single staff with a treble clef and a key signature of one flat (B-flat). The lyrics are Latin: "tu- a vi- no, qui- a me- li- o- be- ra tu- a vi- no, qui- a me- li- qui- a me- li- o- ra sunt vi- no, tu- a vi- no,". The piano accompaniment is written in two staves, with the right hand in a treble clef and the left hand in a bass clef, both with a key signature of one flat. The score is numbered 24 at the beginning.

Example 7. Extract from *Osculetur me* from the *Canticum Canticorum* (Jancsovcics 1976, 8).

⁶⁶ See Palestrina (1596) for printed partbooks.

The image displays a musical score for a motet, divided into two systems. The first system (measures 48-51) features four vocal staves (Soprano, Alto, Tenor, Bass) and a basso continuo line. The lyrics are: 'lae di- le- xe- runt te, i- de- o ad- o- le-'. The second system (measures 52-56) continues the vocal parts and basso continuo. The lyrics are: 'scen- tu- lae, ad- o- le- scen- tu- lae, ad- o- le- scen- tu- lae di- le- xe- runt te, ad- o- le- scen- tu- lae di- le- xe- runt te,'. The score includes various musical notations such as clefs, time signatures, and accidentals.

Example 8. Extract from *Osculetur me* from the *Canticum Canticorum* (Jancovics 1976, 10).

A later extract (Example 8) from the same motet shows much the same harmonic progression in bars 51–52. In this case, however, there is no Eb in the cantus because the melodic line of the cantus that leads to the cadence is different. With no *fa supra la* situation, Palestrina does not add the Eb.

3 Imitation

Initially, imitative passages were to be solmised similarly, as were canons. This means an imitative answer was, in theory, real and not tonal: the intervals remained the same. But as the use of imitation became more ubiquitous and assumed a more structural function, exact imitation became impossible. (Routley 1985, 67–68.)

Berger (1987, 118) claims that no evidence has been found that imitative or canonic lines would be exempt from the harmonic rules that governed *ficta*. However, it was desirable that canons at the same pitch or at an octave, as well as canons at the fourth or fifth, should preserve the original intervals. (Berger 1989, 118–119.)

The canon from the *Agnus Dei* of Palestrina's *Missa Ad cenam Agni* reveals the canonic method. Example 9 shows that the canon was sung (by the second altos)

from the same vocal part as the soprano. The interval of the canon was written at the beginning; the *canon ut supra* (canon as earlier) referring to an earlier definition of *Canon in subdiapente*, canon at the lower fifth. The altos came in a fifth below the original at the *segno* sign.

The image shows a page from a musical manuscript. At the top, there is a title bar with the text "Missa Ad cenam Agni provide". Below this, the text "Canon ut supra" is written in a large, decorative font. The main part of the page contains two staves of music. The upper staff is a vocal line with a large, ornate initial letter 'A' at the beginning. The lower staff is a basso continuo line. The lyrics "Ensus de i ii" are written below the first staff, and "qui tollis peccata mundi" are written below the second staff. The music is written in a style characteristic of the 16th century, with square notes and a simple rhythmic structure.

Example 9. Beginning of *Agnus Dei I* of Palestrina's *Missa Ad cenam Agni provide* from the *First Book of Masses* (1554), *cantus*.

Example 10 shows the full score of the beginning. The resolution of the canon can be found in *Altus II*. The interesting question is, did the altos sing in exact canon all through the movement? The first phrase poses no problems, but the beginning of the second phrase (cantus: $d^2-g^2-f^2$) leads to two possibilities: either the one implied by the mode ($g^1-c^2-b^1$) or the exact copy of the cantus ($g^1-c^2-bb^1$). The latter seems very unlikely in the harmonic context. It seems that here duplicating the steps (fourth, second, etc.) is sufficient, not matching the exact intervals of the model, which emphasises the prevalence of the harmonic context over the exact imitation (Routley 1985, 67–68; Berger 1987, 156).

In the imitative passages of sixteenth-century polyphony, strict imitation of the intervals of the model was not expected to the same degree as in canons (Routley 1985, 68). Even the imitative motifs did not need to preserve the intervallic structure of the original motif. And the longer the imitative passage, the less likely an unchanged intervallic structure becomes.

Agnus Dei. I.
Canon in Subdiapente.

A - - gnus De - - - - - i,

- i, A - - - - gnus De - - - - - i,

- i, a - - gnus De - i, A - gnus De - - - - -

De - - - - - i, A - - - - -

- i, A - - - - gnus De i, A - gnus De - - - - - i, A -

A - - gnus De - - - - - i, A -

Example 10. Beginning of *Agnus Dei I* of Palestrina's *Missa Ad cenam Agni provide* from the *First Book of Masses* (1554), full score (Haberl 1880).

Example 11 shows the opening of Palestrina's *Missa Brevis*. The first phrase in the alto can be solmised (natural hexachord): *sol, mi, fa, sol, fa, mi, re, mi, re, ut, re, ut*. The first phrase of the bass and soprano are in octaves and can be solmised in the same manner (soft hexachord): *sol, mi, fa, mi, sol, fa, mi, re, mi, re, ut, re, ut*. In other words, these voices preserve the same intervallic structure. But when the tenor enters on f^1 , the structure is changed: instead of a semitone between the second and third notes, there is a whole step (d^1-e^1). And the tenor solmisation would be completely different, beginning *fa, re, mi, fa* in the natural hexachord and needing a mutation during the phrase into the soft hexachord. This coincides with the views of sixteenth-century theorists that imitative passages had by the sixteenth century become a structural element and did not need to preserve the original intervallic structure of the model. And in all cases, the harmonic rules were overriding.

Cantus

Altus
Ky - rie e - lei -

Tenor

Bassus
1 Ky -

4 Ky - rie e - lei - - - -
- - - son, e - lei - - - -
- - - - - Ky - rie e -
4 rie e - - lei - - - - son,

9 son, Ky - rie
son, Ky - rie e - - lei - - - son,
- lei - - - son, e - - lei - - -
9 Ky - rie e - - lei - - - -

Example 11. Beginning of the *Kyrie* of *Missa Brevis* from Palestrina's *Third Book of Masses* (Managnin 2013).

II Harmonic rules

4 mi contra fa

The most famous harmonic principle is the one that forbids the simultaneous singing of *mi* and *fa* located a perfect consonance apart. For example a *fa* in the natural hexachord and a *mi* in the soft hexachord creates a tritone (F–B). If this happens on a *tactus*, the harmonic clash is unacceptable.

Put simply, the idea of this principle is to keep octaves, fifths and fourths perfect at arrival points in polyphony. Johannes Tinctoris defines the offensive intervals in the late fifteenth century as false unison, false diapente [fifth] and false octave. As Berger (1987, 95–96) shows, Tinctoris also points out examples where well-known composers breach these rules. (Berger 1987, 95–96.) These breaches of the rule seem to be accepted (by others than Tinctoris) if the offensive interval is resolved properly with the *fa* going down and the *mi* up (Berger (1987, 97–99). Passing-note dissonances can also be accepted (Berger 1987, 114). But as a general rule, imperfect unisons, fifths and octaves are to be avoided if they occur on the *tactus*. In the same manner as with the same intervals in a melodic line, the normal method of correction is adding a flat, rather than adding a natural or a sharp. Naturals and sharps may, however, have been added by the composer to eradicate the possibility of a melodic adjustment (flat) causing a harmonic clash. (Berger 1987, 115, 120).

The image shows a musical score for five voices, likely a choir or instrumental ensemble. The score is in G major (one sharp) and 4/4 time. The lyrics are: 'runt me, me cu- sto- dem in vi- ne- is, po- su- me cu- sto- dem in vi- ne- is, po- su- e- me cu- sto- dem in vi- ne- is, po- su- me cu- sto- dem in vi- ne- is, po- su-'. The score shows a complex polyphonic texture with various intervals and accidentals.

Example 13. Extract from *Nigra sum* from the *Canticum Canticorum* (Jancsovcics 1976, 18)

In Palestrina, breaches of the *mi contra fa* rule are rare. In cases where there is a danger of these happening, the composer tends to add an accidental in the voice part

that is likely to create the discord. In Example 13, an extract from the *Nigra sum* of the *Canticum Canticorum*, Palestrina has added an Eb in both the tenor I and the bass in bar 57. Neither could be deduced from the melodic line and if only one was marked, there would be a real chance of an imperfect octave. Yet, in Example 14 from the same motet, the composer has not marked an Eb in the tenor I line, even though the bass has one on the first beat of bar 6. The difference is in the melodic line: the tenor would need to sing the Eb in any case to avoid a melodic tritone and because of the *fa super la* rule.

The image shows a musical score for five voices: Soprano (S), Tenor I (T), Tenor II (T), Alto (A), and Bass (B). The music is in a single system with four measures. The lyrics are: Ni- gra sum, sed for- mo- sa, ni- gra sum, sed for- mo- sa, for- mo- sa, sed for- mo- sa, sed for- mo- sa. The score includes various musical notations such as clefs, time signatures, and accidentals.

Example 14. Extract from *Nigra sum* from the *Canticum Canticorum* (Jancsovcics 1976, 15)

Avoiding imperfect fifths can, at times, lead to what Berger (1987, 89, 119) calls a chain reaction, where one adjustment leads to another in another voice, which in turn requires an adjustment in the third, and so on. One example of this is Routley's (1985, 64) *ficta* to an excerpt from a Josquin motet. By correcting a Bb–E between the *discantus* and *altus* by flattening the E, Routley avoids the harmonic tritone between these two. The adjustment, however, leads to flattening an A in the bass on the next beat to avoid a tritone between the *altus* and *bassus*. Berger (1989, 115) implies that this solution would seem unlikely in view of the writings of Renaissance theorists, for example Tinctoris. An adjustment in the alto would not necessitate an adjustment in the bass.⁶⁷

⁶⁷ The most famous “chain-reaction” *ficta* proposition is without doubt Edward E. Lowinsky's secret chromatic art theory from the 1940s, in which the correction of imperfect fifths by accidentals led to long chains of *ficta* that took the music at times to distant sonorities.

5 Perfection

The foundations of the harmonic rule of perfection were described by theorists as early as the fourteenth century. The basic idea is that an imperfect consonance (third or sixth) must move to the closest perfect consonance in contrary motion, with one voice moving a semitone and the other a whole tone to form the perfect consonance. Thus, a minor third, for example, D–F, is resolved into the unison with a half step down F–E and a whole step up D–E. A major third is resolved into a perfect fifth (G–B to F–C or Eb–G to D–A), and a major sixth into an octave (D–B to C–C or Eb–C to D–D). Fifteenth-century theorists described the reason to create these intervals before perfect consonances as *causa pulchritudinis*, because of beauty. (Berger 1987, 122.)

Example 15 shows some typical cadencial formulas from Palestrina's *Canticum Canticorum* motets. In 15a (from *Nigra sum*, bar 26) we see the minor third resolved into the unison between *cantus* and *altus*; 15b (the ending of the same motet) shows a major sixth between *altus* and first tenor resolved into an octave; 15c (*Osculetur me*, bar 55) shows a Phrygian cadence where a major sixth between bass and first tenor is resolved into an octave with the bass descending a semitone and the tenor ascending a whole tone. There is printed *ficta* in the latter two cadences, but not in the first one.

The image shows a musical score for Example 15 a, starting at measure 25. It features five staves: a vocal line (cantus) and four instrumental parts (altus, first tenor, second tenor, and bass). The key signature has one flat (B-flat). The vocal line has the lyrics "ber- na- cu- la Ce- dar,". The altus part has "Ce- dar,". The first tenor part has "la Ce- dar,". The second tenor part has "sic-". The bass part has "na- cu- la Ce- dar,". The score illustrates the resolution of a minor third (D-F) in the cantus and altus parts into a unison (E-E) in the final measure.

Example 15 a

vi- ne- is.
 vi- ne- is.
 vi- ne- is.
 is.
 vi- ne- is. (1/5-6)

Example 15b

ad- o- le- scen- tu-
 lae di- le- xe- runt te,
 te,
 di- le- xe- runt te,

Example 15c

Examples 15 a–c. Cadential formulas from Palestrina’s *Canticum Canticorum* (Jancsovics 1976, 17, 19, 10).

In the sixteenth century theorists accepted other alternatives for perfection, even if the rules described above were seen as the norm. Other alternatives included approaching the octave via a major third with one voice moving up or down a semitone and the other reaching the octave through a leap (C–E to F–F); reaching the fifth via a minor third (D–F to A–E); or by one voice remaining stationary with the other moving a semitone to create a fifth (D–Bb to D–A). (Berger 1987, 126.) Also these perfections may require accidental inflections, but only when there are additional melodic or harmonic reasons for doing so (Routley 1985, 66).

Creating the intervals to precede perfect consonances often required the performers to add *facta*, especially in the traditional perfections. For example, octave perfection on G necessitated sharpening an F against an A. These accidentals were

not marked by the composer before the mid-1500s. In Example 1 from Palestrina's *First Book of Masses*, the composer has added the B natural for the last cadence in the cantus, but not the F sharp at the end of the previous section (cadence on G at the end of *et descendit de coelis* at the beginning of the extract). One of the key questions of interpreting the rule of perfection is when it should be used.

The explicit answer given by many theorists was that the application of the rule is absolutely obligatory only at cadences. The key interval in a cadence is the octave (or unison). In cadences the octave is approached through an imperfect consonance, which in turn is preceded by a dissonant suspension (see Example 15b). If these terms are met and perfection is situated at the end of a piece, before a rest or at the end of a textual passage, the imperfect consonance (third or sixth) needs to be adjusted to create a major sixth leading to the octave or minor third leading to the unison. It is also worth noting the rule of perfection also applies to evaded cadences, where no octave or unison is formed, but only implied, as in Example 15a. (Berger 1987, 130–134.)

However, it seems that adjusting the imperfect interval preceding a perfection elsewhere in the music became progressively more popular during the sixteenth century. But it is worth noting that there was disagreement between musicians on when to apply the rule. Theorists like Zarlino, who wrote in the late 1550s, advocated perfection progressions whenever approaching an octave. Others were more conservative: the papal singer Ghiselin Danckerts, also writing in the mid-sixteenth-century, felt that a too literal reading of the rule led to the character of the modes becoming obscured. This means that while there is no real disagreement on the need of adjusting imperfect consonances at cadences, there is a grey area in the intermediate perfections. Some musicians and theorists preferred perfections outside the cadential framework, others did not. (Berger 1987, 127–129, 137–138.)

In light of printed music from the late sixteenth-century, it seems that perfections became more and more common in the passages between clear-cut cadences. This is evident in the intabulation (see below in 'Applying the rules'), as well as the printed Palestrina works, as Example 16 shows. The cadence on D at the end of a textual passage (beginning of bar 58) is followed by two chords with major thirds, beginning a circle of fifths (D–G–C–F–Bb) progression. Whether this passage can still be considered to be a pure example of the rule of perfection is contentious, but it does show how the use of major thirds had started to be used as an expressional means between cadences.

Example 16. Extract from *Vulnerasti cor meum* from the *Canticum Canticorum* (Jancsovcics 1976, 44).⁶⁸

In keys with no b staff signature, the central interval in need of adjusting at perfections is the sixth (7–2 leading to 8–8). Cadences on C, E, F and B are unproblematic as there is a natural major sixth between 7 and 2, so the cadences that require accidental inflections are ones on D, G and A. As Berger (1987, 139–147) convincingly argues, the preferred way to approach these octave perfections was by C# in the cadences on D; F# in the cadences on G and either G# or Bb in the cadences on A. It seems that the approach via Bb to A became more common during the sixteenth century (Berger 1987, 145). In keys with one b staff signature, the sixth before a cadence on C requires a B natural; A naturally becomes a Phrygian cadence approached via Bb and D acquires the nature of A in the untransposed keys: it can be approached either via a C# or an Eb. In many cases following the leading note rule (rule 2) will take care of the perfection as the most common cadential approach is 8–7–8 in the highest voice.

Adding *ficta* to intervals preceding perfections thus requires a judgment of taste as to whether the perfection is weighty enough to require adjusting the preceding imperfect consonance and, as with cadences on A, a similar judgment as to which way to approach the octave. Both theorists' writings and musical examples make it clear that there are several correct alternatives that the performer is expected to choose from.

⁶⁸ All the printed *ficta* is the same as in Palestrina 1596.

6 *Tierce de Picardie*

From the 1520s on, theorists begin emphasizing that if there is a third in the final harmony of a cadence, the third should be major. Nicola Vicentino, writing in 1555, emphasizes making a consonance of the major third at the end of a piece as well as near rests, even if the piece is sorrowful in character. (Berger 1987, 138–139.) As will be seen in the analysis of sixteenth-century intabulations of Josquin's motet *Pater noster*, adding major thirds to intermediate cadences was also possible, but clearly a question of taste, while in final cadences it was a necessity (see also Routley 1985, 67).

Palestrina's 27 motets of the *Canticum Canticorum* all end on chords with major thirds either formed naturally (through the mode) or created by printed accidentals (see Example 15b). In addition, structurally important cadences within the motets are supplied with a printed *terce de Picardie*.

Applying the rules

The rules outlined above are not overly complicated. In many cases, one rule supports other rules and makes it quite clear which accidentals should be added to the music. However, at times the rules are in conflict or inconclusive and their application seems to have left the performer considerable leeway to colour the performance. Although composers began marking the music more and more completely during the course of the sixteenth century, the text is seldom complete. It seems that if the context of the music clearly implied an accidental, it did not need to be written into the music. In even late Palestrina, this holds true as far as leading notes and clear tritone leaps are concerned. At the same time, more and more of the printed accidentals are harmonic in nature and not only reminders or solutions of *ficta* for the performers.

Besides the study of late sixteenth-century scores with ample printed *ficta* provided by the composer, one possibility to examine sixteenth-century interpretations of *ficta* are intabulations of polyphony for organ or lute. Because the tabulature notation is exact and complete in the sense that it refers to specific frets or keys of the keyboard, all chromatic inflections need to be notated. This means the intabulations are, in fact, interpretations of the open texts of motets, masses or secular songs, with both *ficta* and embellishments written in. Some reservations to

the use of intabulations as a reliable source for *ficta* have been raised, but they do, in any case, represent sixteenth-century readings of accidental inflections, and are as such a valuable addition to the information afforded by the theoretical treatises.⁶⁹

One good example of this method is Howard Mayer Brown's (1976) analysis of lute intabulations to Josquin's motets. The motets are from around the turn of the sixteenth century, but the analysed intabulations are from the mid-1500s, which makes them of great interest from the point of view of the *ficta* to especially early Palestrina. Possibly the most interesting, and the least surprising finding of the Mayer Brown article is that the intabulations adhere quite faithfully to the rules of *ficta* laid out by the theoretical treatises and outlined above.

An excellent example of the *ficta* shown in the intabulations is an extract of Josquin's *Benedicta es*, shown here in Example 17. Brown (1976, 486–487) shows that eleven intabulations for lute, organ and vihuela approach the second cadence on G in three different ways. Four, Alberto de Ripa (1558), Piero de Teghi (1547), Miguel de Fuenllana (1554), Sebastian Ochsenkun (1558), raise the leading tone (f in the example, marked *) and leave the other lines untouched. Three other intabulators, Antonio de Cabezón (1578), Jacob Paix (1589), and an anonymous musician (1533), also add a bb (marked +) in the tenor line just before the cadence.⁷⁰ Another three, Simon Gintzler (1547), Melchior Newsidler (1574) and an anonymous intabulator (1571), leave the b natural (at +), but add an f# in the second lowest voice (marked o).

⁶⁹ The reservations include distance to the original work both in time and place: the intabulations were often written in another part of Europe many decades after the original work. Also worth remembering is that the intabulations may themselves not be definitive texts, but a basis onto which a skilled performer added their own touches. (See, for example, Routley 1985, 70; Bent 2012.) It might need to be added that the characteristics of the instrument might play a part in the choice of *ficta*: especially in the lute long notes fade away to the extent that false relationships would be easier for the ear than on an organ, or in vocal performances.

⁷⁰ There are two different intabulations of the Josquin motet by the Spaniard Cabezón, both with the same *ficta*. Thus the total number of eleven intabulations.

The image shows a musical score for Josquin's *Benedicta es*. It consists of three staves. The top staff is in treble clef and has a '8' below it. The middle and bottom staves are in bass clef. The lyrics are: 'ip - se fra - ter, cu - jus e - ras fi - li - a, cu - jus ip - se fra - ter, cu jus e - ras fi - li - a ip - se fra - ter, cu jus e - ras fi - li - a, cu - jus'. There are two '+' signs above the first staff and one 'o' above the second staff, indicating specific notes or accidentals.

Example 17. Extract from Josquin's *Benedicta es*.

As Brown (1976, 487) puts it: "...neither local custom, distance in time from Josquin, nor individual temperament and ability seem to have affected the notion that the succession of chords had several possibilities of resolution, all of which are suitable." The other examples of Brown's article, most notably the comparison of four intabulations on Josquin's six-part *Pater noster* by Francesco de Milano (1536), Piero de Teghi (1547), Simon Gintzler (1547), and Sebastian Ochsenkun (1558) yield similar results. The similarities of the *ficta* in the intabulations are strong, but there are also significant differences. Most of the accidental inflections are in the embellishments, in which these musicians seem to emphasize melodic elegance over the prevailing harmonic situation.

Perhaps the most interesting information comes from passages where the intabulators have added accidentals to Josquin's own lines (see Brown 1976, 504–519). Almost all of the *ficta* added by the intabulators is cadential by nature. Josquin's *Pater noster* is in transposed mode II (G with one b in the staff signature) and the most important cadences are on G and D. Perhaps the most telling passage is between bars 55 and 59, found in Example 18. All the intabulators agree on the leading tone F# in bar 55, but after this the readings differ substantially. The intabulators are numbered in Example 18 in the following manner: 1 = Francesco (1536), 2 = Gintzler (1547), 3 = Teghi (1547), and 4 = Ochsenkun (1558).

Example 18. Extract from Josquin's *Pater noster à 6* (Eichler 2012), with *ficta* from Brown 1976 (517–519)

Of all the accidentals in this passage, only the eb^1 in the second lowest voice at the beginning of bar 58 appears in many of the sixteenth-century vocal models (Brown 1976, 516). In modern editions, this often leads to a radiation of kinds, where the environment is adapted to the accidental of the source: the E flat radiates both harmonically and melodically into the passage. The modern score of Example 18 is a good example of this editorial principle. Yet, both Francesco (1) and Ochsenkun (4), who preserve the Eb , have no problem in using an E natural only one *tactus* after the Eb . Not one of the four uses an Eb in the plagal cadence on G (bars 58–59).

Throughout the motet, Francesco adds more sharps and naturals than the other intabulators. While especially Ochsenkun (4) only raises leading tones at full cadences, Francesco (1), and to a lesser extent Gintzler (2), tends to create, as Brown (1976, 486) describes them, dominant-functioning chords within the passages. This is quite apparent in Example 18, where Francesco and Gintzler raise the B flats to B naturals in bars 56 and 57, and also add a *tierce de Picardie* in bar 59. That all four readings are different and yet theoretically correct enforces the idea that *ficta* belongs to the realm of performance practice. There is no one correct text, but there were and there are many correct possibilities and the performers should add *ficta* according to their own taste and use the harmonic and melodic possibilities as a part of their performance.

Another excellent example of many correct options and opinions is the discussion between two singers reported around 1540 by Ghiselin Danckerts, a singer of the papal chapel and cited in Berger (1987, 148–149). Two singers, a bass and a tenor,

disagreed whether the bass should sing B flats in a passage of Juan Escribano's *Lamentations* in the untransposed second mode. Only one accidental, a Bb, was written in the music, and its function was clearly to prevent a *mi-fa* discord. The other flats would have made sense from the harmonic point of view as they would have led to perfections on A via a major sixth. Yet the tenor, as well as Danckerts, preferred the reading without the B flats. As Berger (1987, 149) points out, it seems that sixteenth-century musicians disagreed on whether or not to treat a progression within a passage in a cadential manner or not. This phenomenon also explains some of the differences of *ficta* in the intabulations above.

One important aspect that few editors or scholars have discussed is the difference in procedure between our methods of preparing and performing vocal polyphony and the reality of a sixteenth-century singer. There was no score to refer to in cases of harmonic clashes, and often no maestro who had a conductor-like role in the ensemble.⁷¹ And as the singers seem to have rehearsed quite seldom, most of the *ficta* would have had to have been sung either according to tradition or *ad hoc* according to the melodic rules or based on aural anticipation. It makes very complicated harmonic solutions, especially chains of accidentals, seem quite unlikely. Perhaps solmisation as a starting point, added by melodic corrections and some harmonic anticipation could lead us to the most likely result.

Summary and practical implications

The fifteenth- and sixteenth-century rules for adding *ficta* to music are not especially complicated. However, they leave so much room for different interpretations that *ficta* clearly belongs to the realm of performance practice. As there is no definite text to follow as far as, for example, tempo, dynamics or embellishments go, neither is there a definite musical text to all the pitches. And as the sixteenth-century intabulations show, the parts marked by the composer leave substantial room for interpretation and colouring the work with the choice of *ficta*. Some of these accidentals can be added according to taste, some are absolutely necessary.

⁷¹ For example, the Papal choir had no musical maestro until the last decades of the sixteenth century and the *Ordini* of St. Peter's choir make it clear that the maestro was not always expected to be present when the choir sang.

In adding *ficta*, we have three major handicaps. Firstly, we have no oral or aural tradition to fall back on. Our taste in adding *ficta* is born through modern editions and performances, and there is no guarantee that these resemble sixteenth-century performances. We might have a glimpse of sixteenth-century taste through the intabulations, but they are often detached from their original in time and place, and above all, they are instrumental versions of vocal music and we cannot be sure they reflect a vocal practice. That said, a study of the intabulations based on Palestrina's works might increase our understanding of the use of *ficta* in them.

Secondly, we do not have the same gravitational centre in reading music as the Renaissance singers did because we do not use hexachordal solmisation. I suspect *ficta* and solmisation are more closely connected than many scholars believe. This is a field that deserves much more attention than it has to date received.

Finally, and somewhat ironically, one of our strengths might actually be our most glaring weakness: we use complete scores in which the harmonic structure is readily available. This is a situation that the performers of the sixteenth century practically never encountered. They normally had to perform with reference to their own voice part only and at best stealing glimpses of the other vocal parts in a huge choirbook. This brings on a shift in focus: the melodic contours of the singer's own part are paramount and information on what the other singers are doing needs to be acquired aurally. This leads to an emphasis on the melodic principles for *ficta*, an emphasis that is easily lost when working with a full score. Especially complicated harmonic solutions requiring chains of correction or a radiation of certain inflected notes to the environment both vertically and horizontally become quite difficult to realise.

This short foray into *musica ficta* shows that knowledge of the principles and use of *ficta* in the Renaissance gives performers a better chance to evaluate the *ficta* of modern editions and also liberates them from following the text of the editor literally. The role of the sixteenth-century performer included adding unwritten accidentals. This obligation and freedom is still ours to accept.

Singing Palestrina

While the previous sub-chapter ‘The Music’ concentrated on the information that can be gleaned from the notation of sixteenth-century polyphony, as well as the background information necessary for unlocking much of this information, ‘Singing Palestrina’ is more centred on the role of the performers in interpreting this information. It begins with a foray into the Roman choirs: the number of singers and the disposition of the voices and how these numbers translate into performances of polyphony. This concrete element is followed by two ephemeral, but hugely important subjects: vocal technique and style; and the improvisatory embellishment practice that was so central to at least solo performance in the late sixteenth century. These are followed by a discussion of how chant might have been performed in Palestrina’s time. This section on singing Palestrina closes, perhaps a little ironically, with a description of the use of instruments in performing sixteenth-century polyphony in Rome. Perhaps a more suitable title for this discussion would have been Singing with instruments as the emphasis is on performances of polyphony with mixed forces, that is, singers and instruments. Purely instrumental performances of polyphony fall outside the scope of this study.

All of these elements are central in determining how Palestrina’s sacred music may have sounded as performed in the second half of the sixteenth century in Rome. No single element considered in this sub-chapter is completely straightforward and it needs to be stressed that we should not be on the look-out for one single practice, but rather a diversity of practices that varied according to the liturgical context, the available forces, the skills of the individual musicians and, not least, the taste of the patrons. Any findings in these matters will by necessity require an element of conjecture. I have attempted to make this process as transparent as possible and present the evidence in a way that even contrary deductions remain possible.

The choirs

...afterward they join together in singing Evensong with such melodious harmonie, as if Angels should take unto them mens voices. Gregory Martin, 1581 (Martin 1969, 168).

While many aspects of performing Palestrina's music in Rome during his lifetime can only be conjectured, the choirs with which Palestrina worked are well documented. We know their size, and, in many cases, the distribution of their voices. The striking thing about this information is how much his choirs, and the choirs of the Roman chapels on the whole, differed in size from one another.

An important feature of the sixteenth-century choirs was that the singers were all male, either adults or boys in training. At the Papal chapel only adult men were employed, whereas in all the other institutions with which Palestrina worked, there was a combination of adolescents and adults. The adult sopranos were either falsettists or *castrati*.

The distribution of voices in these choirs was quite even. If there was a tendency towards uneven distribution, it was a predominance of sopranos, perhaps to compensate for the lesser volume or insecurity of the youthful voices of the boy sopranos. The *tessiture* of the voice parts were also quite different from those of modern mixed choirs and the sound probably more sombre than the one we are used to hearing in performances of Renaissance polyphony.

A separate and important question is whether the polyphony was performed chorally or was it, as a rule, performed with one singer per part. There is evidence to support both practices and, as with many other aspects of performance practice, the defining feature seems have been diversity.

The size of the choirs and the distribution of voices

The Papal choir was considered the premiere choral ensemble in western Christendom, even if the latter half of the sixteenth century can hardly be described

as its golden period.¹ Spanish dominion in Italy and the training of young Italian musicians changed the balance of the choir: the Franco-Flemish singers who had played such a prominent role from the early fifteenth century became a small minority as Italian and Spanish singers took their place.

In sheer numbers, the Papal choir was the biggest regular choir in Rome. Table 1 shows the number of singers in the Papal chapel during Palestrina's decades in Rome. The sharp reduction in numbers around 1565 is due to a reform enacted during the reign of Pope Pius IV (1559–65). After an evaluation of the 37 singers, thirteen singers were expelled, and the ideal size of the choir fixed at 24.

1555	30	(Haberl 1888a, 91)
1565	37	(Sherr 1994a, 614)
1566	23	(Sherr 1994a, 616)
1577	24	(Sherr 1994a, 618)
1586	21	(Sherr 1994a, 616; 628, note 25)
1594	26	(Frey 1974, 447)

Table 1. Number of singers in the papal chapel, 1550–94.

The singers in the Papal chapel are seldom referred to by their vocal parts in the archival material. The information collected in Table 2 shows that the numerical balance between the voice parts was fairly good throughout the sixteenth century.

	sopranos	altos	tenors	basses
1544	7	14 altos or tenors		8 (Sherr 1987, 458)
1558	6	12 altos or tenors		7 (Sherr 2012a, 3)
1566	5	5	8	5 (Sherr 1994a, 616)
1577	6	6	5	7 (Sherr 1994a, 618)

Table 2. Information on the distribution of voices in the papal chapel, 1544–77.

The choir in St. Peter's Cathedral, the Cappella Giulia, was the second most important ensemble in Rome, both in status and in size. In contrast to the Papal chapel, the Cappella Giulia was not only a performing ensemble, but also an educational institution. This meant that the choir had both men and boys in its ranks. During Palestrina's sojourns at the chapel, the archival data feature boys between the ages of eleven and sixteen (Rostirolla 1977; Bianchi 1995, 139). Table 3 shows the size and voice distribution of the Cappella Giulia during Palestrina's

¹ The problems of the Papal choir in the sixteenth century have been analysed in Sherr (1994). In sum, it seems that the ubiquitous Roman practices of the time, i.e. simony, nepotism and corruption, led to incompetent singers being appointed to the choir without any audition.

periods as *maestro*. A reliance on boy sopranos is quite apparent from these figures, which are gleaned from Rostirolla (1977, 150–153; 172–209.)

Year	S (men+boys)	A	T	B
1551	1+3	3	3	3
1552	0+3	3	3	4
1553	0+4	4	4	3
1554	1+4	4	3	4
1571	1+6	3	4	3
1572	0+7	3	3	3
1573	0+4	3	4	3
1574	1+3	4	3	3
1575	1+2	4	4	4
1576	2+1	4	3	3
1577	3+3	4	4	3
1578	2+3 (+5) ²	4	3	3
1579	3+2 (+5)	6	4	4
1580	2+4	5	4	4
1581	3+6	3	4	3
1582	0+6	4	4	3
1583	1+3	4	3	4
1584	0+6	4	4	4
1585	0+4	4	4	4
1586	1+4	4	4	4
1587	4+1	4	4	4
1588	5+1	4	4	4
1589	1-2+4-5	4	4	4

Between 1590–96 only partial records remain.

Table 3. The number of singers in the Cappella Giulia and the distribution of voices during Palestrina’s periods as maestro.

Even these unambiguous numbers are perhaps not quite as straightforward as they seem. In the Papal chapel, as well as the Cappella Giulia, the choir was divided into two groups, which alternated during ferial days. This means that for most of the latter half of the sixteenth century, the maximum number of singers available on a weekday would have been around twelve in the Papal chapel and eight at the Cappella Giulia. Only on Sundays and festal days would all singers have been present. (Lionnet 1987, 5; Marvin 2002, 8; O’Regan 1996, 153.) This phenomenon is apparent in other institutions as well: a large choir was an integral part of the pomp

² In 1578-79 an additional five boys were placed under the tuition of the maestro. They seem to have formed a preparatory ‘*schola*’. Some of these boys did move to the choir proper; some disappeared from sight. (Rostirolla 1977, 214–215.) It is reasonable to assume that the boys of the ‘*schola*’ would have been below the normal age of admission.

and splendour that went with major feasts, while the everyday liturgical machinery could be carried out with fewer singers.

In October 1555 when Palestrina joined San Giovanni in Laterano as *maestro di cappella*, the choir consisted of two altos, two tenors, two basses and three boy sopranos. It was the policy of the chapel to strengthen the choir with extra singers on the major feasts of the year: Holy Week, the processions of Saint Mark and Corpus Christi and the feasts of the evangelist Saint John, Saint John the Baptist and the dedication of the basilica. (Simi Bonini 1991, 66–67.)

Palestrina's next *maestro* position was at the Santa Maria Maggiore. The chapel of the Liberian basilica was not as dependent on boy sopranos as that of San Giovanni. According to Bonini (1991, 76–78), during the years 1561–63, the choir consisted of three adult sopranos (falsettists), three altos, two tenors and two basses in addition to three to four boy sopranos. Both of the basilicas had organists on their payroll (Simi Bonini 1991, 75, 78).³

It is worth pointing out that the numerical balance between voice groups was quite even. If there was an imbalance, it was in favour of sopranos in the choirs that featured boys. This was in all likelihood not an expression of artistic taste, but a practical consideration: singing in the choir was an essential part of the boy's training. This meant that the number of boys in training directly affected the numerical balance in the choir. As Table 3 shows, between 1571 and 1589 the number of boys in the Cappella Giulia varied between one and seven. Even if there had been a more constant number of boys in training, having adult sopranos in the choir made polyphony possible even when the boys were not present, as the boys did not sing in all the daily services.⁴

At the Seminario Romano, where Palestrina worked between 1566 and 1571, he had four professional singers and an organist at his disposal in addition to scores of seminarians, for whom polyphony (*canto figurato*) was an obligatory daily subject. According to the statutes of the institution, the students were to sing an hour of polyphony, or three to four motets, daily. (Casimiri 1935, 4–8.) The same statutes also defined the liturgical music of the institution: for example, on major festal days, motets for six to eight voices were to be sung during the Mass and motets for two choirs were expected at Vespers (Casimiri 1935, 7–14). In all likelihood, these demands imply that the four professional singers would have been reinforced by

³ On the role of the organists, see 'Instruments'.

⁴ Polyphony was only part of the musical diet, and the liturgical hours were mainly sung in chant and improvised counterpoint on chant. Polyphony was heard mainly in the Mass and Vespers.

some of the most adept seminarians in the polyphonic works.⁵ In theory, it is possible that the whole student body, which numbered 80 in 1565, could at times have participated in the polyphonic singing for major feasts.

For the freelance work Palestrina did outside his regular positions, eight singers seem to have been considered sufficient by both the employer and the performers. During Lent and Holy Week in 1576 and 1578, Palestrina provided music for the liturgy of the Confraternity of Santissima Trinità dei Pellegrini. For these occasions, he recruited eight and twelve singers, respectively, mainly from the Cappella Giulia (O'Regan 1995, 30). According to O'Regan (1995, 47), eight singers were very much the norm for most Roman *cappelle*, which usually consisted of two boys and six men. When the Confraternity of Santissima Trinità dei Pellegrini in the early 1590s went about setting up a professional choir of its own, its aim was to hire eight professional singers (O'Regan 1995, 39).

As O'Regan (1996, 153) points out, the numerical preference for eight singers was more a practical consideration than a musical ideal. Eight singers were a reasonable expense; they could still sing polyphony even if one or two singers were absent; eight singers would create a sufficient collective for performing chant; and, when all were present, they could be divided into two groups of four to sing polychoral music. As indicated by the growing numbers of singers employed for major feasts during the last decades of the sixteenth century, the high clergy and laymen might have preferred big choirs and polychoral pyrotechnics, but for normal services polyphony sung by eight singers was considered quite sufficient.⁶ Most of the polyphony heard in sixteenth-century Rome would thus have been sung with one or two singers per part.

The choristers

The singers in Palestrina's choirs were professionals, trained in cathedral choirs in different parts of Europe. Until 1550 many of the singers in both the Papal choir and the Cappella Giulia were *ultramontani*, from North of the Alps, mainly Flemish or

⁵ Such students might have included Palestrina's sons Rodolfo and Angelo, who are listed as seminarians in 1569 (Casimiri 1935, 17–19).

⁶ As polychoral music became more popular in the late sixteenth century, the major Roman churches and confraternities employed scores of singers and instrumentalists for major feasts. See the more detailed description under 'Instruments'.

French men. With the turn of the political tide, Spanish political domination in Italy and the more efficient training of Italian boys, the Roman choirs became more Spanish and Italian as the century drew towards its end. Especially influential were the Spanish *castrati*, who started arriving in Rome in numbers during the 1570s and 1580s.

Before the arrival of the *castrati*, the soprano parts were sung by boys and falsettists. Only the Papal choir made do without boys, and its soprano parts were sung by adult falsettists until the 1560s or 1570s. It is quite difficult to imagine the sound of the sixteenth-century falsettists, let alone a combination of falsettists and *castrati*. And it is even more difficult to imagine the combination used in the Cappella Giulia in 1576: one boy, one young falsettist and one *castrato* (Rostirolla 1977, 176).

Such combinations lead to the suspicion that uniformity of sound did not appear to be very high on the list of Renaissance preferences. This observation needs to be put in context: it is worth remembering that the sixteenth-century context of performing polyphony was quite different from our modern concert institution. Polyphony was a part of the daily liturgy and in most cases performed in small chapels with possibly only the singers and chaplains present. As rehearsals seem to have been quite rare phenomena, at least in the papal chapel, meticulous attention to uniformity of sound and balance between voice parts or musical details would perhaps have been hard to come by.⁷ But when music was at the forefront, as in the *Tenebrae* services of Holy Week, attention to musical detail seems to have been greater. In practice, this seems to have meant choosing the best possible solo voice combinations from the choir for performing the polyphonic works (Lionnet 1987, 9–11).

As for the soprano parts in Palestrina's choirs, it is worth pointing out that the soprano lines of Palestrina's music are not nearly as high as they first appear. When the works that were written in high clefs or *chiavette* were published in the Palestrina complete editions at their written, untransposed pitch, many of them seemed to be written for high sopranos who could reach up to g^2 . Yet when the transposition implied by the high clefs is applied, very few of Palestrina's soprano lines reach higher than d^2 . Most of the soprano lines move between d^1 and d^2 , with e^2 already an exceptionally high note. This makes the parts accessible to male falsettists

⁷ The only recorded rehearsal of the year of the seventeenth-century papal chapel was organised on the Monday of Holy Week (Lionnet 1987, 9).

and puts them in a range quite typical of modern countertenors, especially as the performing pitch in Palestrina's Rome was in all likelihood somewhat lower than the modern $a^1 = 440$ Hz.⁸

When the necessary transpositions are taken into account, the *tessitura* of the other voice parts of Palestrina's music also differ from their modern counterparts. The alto moves typically between a and a^1 , the tenor between d and d^1 and the bass between G and a . This means that the typical Palestrina alto line would be most natural for a high tenor and the tenor most suitable for a high baritone. These would seem to fit in well with the Renaissance preference for clearly defined registers (see 'Singing technique and Sound'). The alto could be sung in a light head voice, while the tenor could normally be sung in a chest voice.⁹ Of Palestrina's singers, the basses would have been closest in range to their modern counterparts. However, because of the lower range of the writing, their role would have been more akin to that of the second basses of a male choir than to the basses of a modern mixed choir.

Naturally, the pitch at which the music was performed would influence these ranges. However, there is little to suggest that the most commonly used pitches in Rome differed radically from modern pitch standards (see 'Pitch'). In view of the *tessitura* of the voice parts and the limitations of the falsettists, it would seem that downward transposition would have been more convenient than upward transposition. It might well be that the Roman choral sound was on the whole much more sombre than the brilliant timbre many of us have grown used to attributing to it.

Solo voices or choral polyphony?

In the twentieth century, the generally held concept of Palestrina's sacred music was that it was in essence choral music, i.e. written to be sung by several singers per part. With archival studies in the Vatican showing that the Papal choir and the choir of St. Peter's had, on average, twenty-five and fifteen singers respectively during the latter half of the sixteenth century, it seemed only logical that these entire bodies would have performed Palestrina's music. A good example of this belief is found in Howard

⁸ See the detailed discussions in 'Pitch' and 'Chiavette'.

⁹ I am well aware of the problematic nature of these technical concepts. They are used here as a general means of description to refer to voice registers.

Mayer Brown (1978, 165), who writes: “...Josquin’s and also Palestrina’s and Lassus’ [Masses] were probably normally performed in the sixteenth century by choirs of 20–35 singers.” The assumption seems to have been that polyphony was at its best when sung with several singers per part.

In 1987, this view was challenged by Jean Lionnet, who claimed that documents of the Papal choir from the seventeenth century indicate that performance of polyphony by solo voices was the norm (Lionnet 1987). Lionnet found unambiguous support for the solo performance of the three- and four-voice sections of works otherwise scored for five or more voices as well as for the music sung during the *Tenebrae* services of Holy Week. Richard Sherr (1994) in turn analysed the sixteenth-century documents of the Papal chapel for similar references. Sherr’s findings were two-fold: he found evidence that supported both choral polyphony and performance by solo voices. Sherr’s (1994, 460) conclusions were that the size of the choir cannot be used as evidence for choral performances of polyphony; that the word *coro* in its sixteenth-century meaning need not refer to anything other than more than one person singing at the same time; that it is almost certain that the duet, trio or quartet sections of masses were sung by soloists; and that the evidence for soloists singing other parts of the mass or motets is ambiguous. However, Sherr (1994, 460–461) does argue that all singers rarely performed together and that the use of soloists was always a valid possibility.

After pointing out that owing to the limited forces available to the majority of Roman chapels, most Roman polyphony would have been sung with solo voices, Noel O’Regan (1996) follows Sherr’s lead in his discussion, but finds more support for the choral performance of polyphony even outside the two Vatican choirs, especially in the Jesuit-run colleges. O’Regan’s (1996, 149) summary is that in traditional polyphonic liturgical music, four- to six-part mass ordinaries and motets were sung by all participating singers, with the trios and quartets sung by solo voices. In polychoral music the norm was to divide the singers into choirs of mainly solo singers. O’Regan (1996, 154) does, however, point out that even in the choral performances, the number of singers per part would have been restricted to four at a maximum.¹⁰

¹⁰ This restriction might seem a little arbitrary: as the Papal chapel had twenty-four members, masses and motets for four voices could, in theory, have been sung with five or six singers per part. The fact that all singers were seldom present and that the total number of singers included retired singers, who remained on the payroll with no obligation to take part in the services does, however, make O’Regan’s claim a very likely one.

Summary and practical implications

The choirs in Rome in Palestrina's day were small by modern standards. Most Roman chapels had to make do with eight singers, and much polyphony would have been performed by soloists. Even in the two Vatican choirs, in which on festal days the number of singers could have been between fifteen and twenty-five, some of the polyphony was executed by solo voices, although choral performances would seem to have been the norm. The music of Palestrina would thus seem to have been written for ensembles with one to four singers per part. In some rare cases the number of singers per part could have exceeded four, but the vast majority of performances would have been sung with only one or two singers per vocal part.

As important as the size of the Roman sixteenth-century choirs was, the distribution of the voices was also significant. The all-male ensembles with their adult falsettists, *castrati* and boy sopranos would have created a sound quite different from the modern ensembles that use adult sopranos. With the downward transpositions implied by the high clefs, the timbre of the music darkens and the tenor and alto lines settle fairly comfortably into the rangers of baritones and high tenors. An ensemble consisting of countertenors or a combination of boys and countertenors singing soprano, high tenors on the alto, baritones or low tenors on the tenor, and fairly deep basses on the bass parts would in all likelihood create a sound closer to the Roman chapels of Palestrina's time than a modern mixed ensemble or choir. In the absence of countertenors or boys, a combination of female altos singing the soprano voice and men on the other voices could well be worth experimenting with.

The size of the ideal ensemble is ultimately a matter of taste, and to some extent, dependent on the quality of the singers. The historical evidence speaks for between one and four singers per part in the non-polychoral polyphony. In performing polychoral music, the late sixteenth-century Roman musicians seem to have increased the number of choirs rather than the number of singers per choir (see 'Instruments'). But as in many other aspects of sixteenth-century performance practice, diversity rather than uniformity seems to have been the rule where the size and set-up of the choirs was concerned. Late in the sixteenth century, polychoral extravaganzas on major feast days could involve scores of singers and players, while the polyphony on ferial days could be sung with one singer per part or even with only a few solo singers with the organ filling in the missing lines (see 'Instruments').

Perhaps it is this very diversity that we should explore further if we want to take the historical evidence seriously.

Singing technique and sound

To the young boy wishing to learn the art [of singing] well and elegantly, I advise him first to select a teacher who, by natural instinct, sings beautifully and smoothly and makes music beautiful by ornamenting his phrases; shunning the hawkers, who by their shouting and other unsuitable things, bring most noble music to be hated by man.

Adrian Petit Coclico, *Compendium musices* (1552; translation quoted from MacClintock 1979, 30–31).

The question of how the vocalists of the sixteenth-century sang has intrigued performers and scholars alike. Unveiling the secrets of these lost voices would ultimately reveal a great deal about how the music of the time sounded, just as reclaiming the sound of period instruments has been an important part of the early music movement of the last half century. The instruments themselves have been the pathway to innovations in both playing technique and sound ideals.

Yet unlike instrumentalists, for vocalists we do not have the physical evidence of past voices. Thus we are completely reliant on the music and a handful of historical writings about singing from different parts of Europe.¹¹ Most of these writings do not focus on vocal technique except fleetingly, and even when they do so, they use a language that is difficult to translate into modern concepts on singing. The consequence is that, as Potter (1997, 311) remarks, there has been no revolution in singing early music compatible to the revolution of instrumental technique and sound.¹²

However, a documented revolution in classical singing does seem to have taken place in the mid-nineteenth century, when the basic principles of modern operatic

¹¹ Most scholarly articles on the singing technique of the sixteenth and seventeenth centuries are normally based on roughly twenty writings, from Conrad von Zabern's *De modo bene cantandi* from 1474 to Manuel García's treatise on singing from 1847. Perhaps the most exhausting list of sources can be found in Stark (2008), which shows approximately 50 sources from this time period. Of these, 29 are from the sixteenth and seventeenth centuries. Most of these sources are not focused on singing technique, but only touch upon the subject.

¹² This view might well be challenged in light of recordings of early music. While the change has not been as radical as in instrumental music, on the basis of recordings from the 1960s or 1970s, there still is a definite change towards a lighter, smoother sound. Whether this is due to singers' attempts to reflect instrumental ideals or the birth of a generic early music ideal spread by influential recordings – or both – is difficult to assess. In any case, the revolution in singing might be more profound than we assume.

singing¹³, including a lower larynx position, darkened vowels and emphasis on breathing, began making themselves heard in operatic performances and gradually spread throughout Europe. In this section, the approach will be to begin from this revolution and then proceed backwards. It is important to understand that what preceded modern operatic singing technique was not a unified style of singing, but many styles that were dependent on time and place and in all likelihood on the native tongue of the singers. Despite these differences, it is possible to deduce some common traits in singing during the centuries preceding the revolution described by nineteenth-century writers. The most salient of these appear to be the position of the larynx and the centrality of singing cleanly articulated florid passages. These characteristics are mentioned by practically all scholars on the subject. Other areas of sixteenth- and seventeenth-century singing technique and vocal style discussed in the literature are the vocal registers, the use of vibrato, loudness, vowel colours and breathing. While none of the evidence is conclusive in itself, the sum of the parts does give us an idea of how the singing styles of the sixteenth and seventeenth centuries differed from modern classical voice production.

Before moving on to a discussion of the vocal technique of the sixteenth and seventeenth centuries, it is important to note that singing technique is notoriously difficult to put into words. As Burgin (1973, 7) puts it in his introduction to an analysis of pedagogical material of singing: “Fanciful imagination is often evident rather than fact; imagery is used in place of explicit instruction; conflicting terminologies are frequently present and there is much use of ambiguous verbalization of ideas”.¹⁴ In the end the problem lies in the subjectivity of the singing experience: singing is a physical skill which is in essence innate and based on involuntary reflexes (Brown 1996, 1).

There are two main ways of describing the skill of singing: the physiological approach and an approach that could be termed phenomenological-metaphorical.¹⁵ For example, in the case of breathing, the physiological approach says that the inhalation of air is limited to the lungs, which only go down as far as the fourth-

¹³ I use ‘modern operatic singing’ and ‘modern classical voice production’ as descriptions of the technical approach to singing that is prevalent in teaching voice in conservatories and music academies in our time. These terms are not intended as descriptions of style or performance tradition.

¹⁴ A good example of the confusion facing a reader of guidebooks on singing is found in Table 2 in Burgin (1973, 42): in all, Burgin found 38 statements advising direct control of breathing organs and 30 advising against direct control; 66 statements were found claiming that diaphragmatic control is essential and 27 claiming diaphragmatic control is not essential.

¹⁵ Other formulations of this distinction are: technical contra psychological; physiological contra psychological-aesthetic; Mechanists contra Empirists; or scientific contra practical (Burgin 1973, 16; Potter 1997, 311).

lowest ribs, but the phenomenological-metaphorical approach can express the inhalation as air flowing all the way down to the pelvis. And from a subjective viewpoint, the latter can actually describe the feeling of inhalation much more clearly than a physiological description of how the diaphragm or the abdominal wall functions in inhalation. Vocal pedagogy is thus often more a description of how an element of singing feels than about what actually happens. And because of the individuality of voices and bodies, these experiences, and the metaphors used to describe them, vary greatly. A central example of the metaphorical approach is what Stark (2008, 52) calls resonance imagery, in which sensations of resonance in the body of the singer are used as a guide to good singing.¹⁶ To understand how important the metaphorical element is in books on singing, it is worth noting Stark's (2008, 54) claim that singing methods using resonance imagery far outnumber scientifically-oriented methods.

The reason for dwelling so long on these matters is to emphasise that reading any writing on singing from centuries gone by requires caution. As we have seen, even reading modern literature on singing is not without its pitfalls and perhaps more caution than has been used by some of the scholars on medieval and Renaissance singing should be heeded in the interpretation of the sources. Along with the same problems we have with twentieth-century treatises, in reading the sixteenth-century treatises, our sense of context and tradition is much weaker. From the twentieth century we have a wealth of singing treatises and thus understand the context of the writing; we normally know the tradition the writer represents; and in many cases we can even compare the writings to recordings made by the same singer. Without access to any of these, any conclusions about how singing actually sounded will invariably include a great deal of speculation.

A change in the larynx position

There is one authority that seems to have reliably documented a substantial change in pre-twentieth-century singing technique. Manuel García the younger published a treatise in two parts in the 1840s and revised it in the 1870s. García (1805–1906) was the son of a noted Spanish tenor of the same name, who was possibly taught by a

¹⁶ Terms as fundamental as head voice and chest voice are examples of resonance imagery, as they refer to where the voice is experienced, not to where it is actually formed. Other examples include placing or focusing the voice and singing in the mask. These images, while anatomically dubious, seem to be pedagogically viable. (Stark 2008, 51–54).

pupil of the famous castrato Niccòlo Porpora (1686–1767). As Manuel García was taught by his father, there is a link, albeit tenuous, to the golden era of *bel canto* dominated by the castrati. Manuel García's singing career did not match his father's, but his teaching career spanned more than half a century, first at the Conservatory of Paris from 1835 and then at the Royal Academy of Music in London from 1848. To what extent García's treatise reflects the training and vocal style of the eighteenth-century castrati can be debated, but García's physiological approach to the voice and the process of singing showed the way for future treatises on singing and documented some very important changes in singing that took place in the mid-nineteenth century. (Paschke 1984, iii; Stark 2008, 4–5.)

García describes the singers of his day using a lower larynx position than earlier generations.¹⁷ That a change in singing was indeed taking place is confirmed by a report of 1841 on García's memoir to the French Academy of Sciences presented a year earlier (Magendie, Savary and Dutrochet 1984). In their analysis of García's memoir, the commissioners note that the darkened voice or *voix sombrée* described by García is an unusual voice, which in France in 1840 had been known only for three years thanks to one particular opera singer (Magendie et al. 1984, xxxii).¹⁸ García's analysis of the main timbres, *voix sombrée* and *voix claire*, or the sombre and clear timbres is important. García shows that larynx position in these timbres is different: in the clear timbre the larynx rises as the voice ascends from the lowest tones to the highest tones, while in the sombre timbre the larynx remains fixed a little below the position of rest (García 1984, liv–lv). This lower larynx position and the *voix sombrée* are central ingredients of modern classical singing (Uberti 1981, 488–489).¹⁹ If García's observations are correct, then it would seem that the roots of modern classical singing technique lie in the first half of the nineteenth century.

The technical change coincides with the decline of the castrati, who had dominated operatic scenes from the seventeenth century until the early nineteenth century. It is conceivable that the great castrati were not only dominating figures on

¹⁷ Even though García's view that he invented the laryngoscope in 1854 has been challenged, his experiments in autolaryngology lend his views on the larynx position a strong credibility (Paschke 1984, viii; García 1984, xxi; Stark 2008, 5).

¹⁸ This singer is probably Gilbert-Louis Duprez (1806–1896), who is the singer known as the first tenor to sing a high C in his chest voice through the use of the *voix sombrée* (Pleasants 1981, 166–170).

¹⁹ Frustratingly, the terms *voix sombrée*, *voix couverte* and covered singing are also used to describe a very specific phenomenon, the way operatic tenors cover their highest notes. Although Stark (2008, 84) claims that modern voice science literature uses the terms largely in this manner, García used the term to refer to the darkening of a tone in any register. I will use the term in the same manner as García.

the stage, but also paragons for all singers and singing. The castrati normally had a rigorous musical training, an agility of voice that has probably never been surpassed, and because of the discrepancy between their adult male breathing mechanism and child-sized vocal chords, an ability to sing astoundingly long phrases with one breath. In short, they were the consummate singers.²⁰ When they were around, singing technique would have been measured in comparison to the castrati. And as Pleasants (1981, 120) observes, as long as the castrati dominated, singers who could not match their virtuosity were left in the shadow. Once the castrati left the stage, other singers, especially sopranos and tenors, took over.

Another major change that occurred in the early nineteenth century was the growth of opera's physical spaces. The new opera houses in Naples, Milan, Paris and London required male singers especially to sing higher and louder to make their presence felt (Pleasants 1981, 158). The change in singing did not happen overnight, but it seems that a new dominant technique of *voix sombrée* with its lower larynx position spread from Italy to central Europe by the mid-1800s. Because this physiologically documented change is the earliest reliable information on singing technique before the modern era, the less fixed and higher larynx position is the only solid starting point in the quest for the lost voices of the late sixteenth century. It is thus worth analysing the character of the singing voice that uses a more freely moving larynx position to determine how these characteristics correspond to the descriptions of singing in the sources of the late sixteenth and early seventeenth centuries.

Vowel colours and register changes

The sound quality of modern classically trained singers is due to a lower larynx position. The key to the darker sound is in the interplay between the timbre created

²⁰ While the praise directed to the castrati in writings from the seventeenth and eighteenth centuries needs to be taken with a pinch of salt, it nonetheless paints a picture of almost incredible virtuosity. The picture is made even clearer by the music for the castrati that has been preserved. Examples of contemporary descriptions of their singing, as well as musical examples, can be found in Pleasants (1981). The rigorous training of the castrati is also documented in Pleasants (1981). For example, Gaetano Caffarelli (1710–1783), a student of Niccolò Porpora, is reported to have had the following daily schedule: in the morning, an hour of difficult passages, an hour of letters and an hour of singing in front of a mirror; and in the afternoon, a half hour of theory, a half hour of improvised counterpoint, an hour of written counterpoint, as well as another hour of writing letters. The day ended with exercises on the harpsichord and the composition of psalms and motets. (Pleasants 1981, 49.)

in the larynx and its resonance in the chambers of the throat and mouth. The resonance enforces certain parts of the spectrum created in the larynx to generate formants, strong points in the spectrum at a certain moment. All vowels have different formants, which is exactly what makes them intelligible to the listener, be the enunciation in speech or song. (Uberti 1981, 488–490; Potter 1997, 312; Wistreich 2000, 179–180, Sundberg 2000, 240–243.)

As Uberti (1981, 489–490) shows, lowering the larynx causes a change in the first two formants. The first formant remains fairly constant in all vowels creating a homogenous timbre, the *voix sombrée*, which is typical of modern classical singing. The end result is that all vowels have an “oo”-coloured shading. As this process requires a lower larynx position and a wider mouth position than speech, the ability of the tongue to form different vowels is hindered. This means sacrificing part of the vowel clarity for greater unity and evenness of sound. (Uberti 1981, 490; Potter 1997, 312; Sundberg 2000, 243–244.) At the same time, the lowering of the larynx makes possible the singer’s formant, a peak in the spectrum at roughly 2.2 kHz for low male voices and 2.9 kHz for a tenor. The singer’s formant gives the voice a more distinct timbre and adds to its brilliance and is one of the keys in creating a modern operatic sound. (Sundberg 2000, 242–243.)

The clear timbre that García attributed to a higher larynx position is mirrored in Marin Marin Mersenne’s comment (1636, Book I, 6: 6; cited in Wistreich 2000, 180), where he makes it clear that the larynx goes up when singing higher and down when singing lower. Besides changing the vowel colours and giving the voice an added ring, the lower larynx position and covered sound also make the passage from one register to another much smoother and more even. From the way sixteenth-century sources guide singers to remain in the chest register and avoid the falsetto voice, one can deduce that moving into the high register was not without its problems. According to many Renaissance sources, the basic sins seem to have been either using a powerless and fragile falsetto or forcing the voice.²¹ For example, Hermann Finck (1556, Book V; cited in English in MacCormick 1982, 62) warns against rising higher (in pitch) than the singer should. His examples of misusing the voice in the high register are so vivid that it appears that such problems were not

²¹ The term *falsetto* is used by Maffei in his famous letter from 1562, Caccini in 1601 and Praetorius in 1619 (Wistreich 2000, 180). Zacconi, writing in 1592, uses the term *voce di testa*, head voice in the same function (Uberti 1981, 493). Both moving into a powerless falsetto and forcing the voice are typical solutions still used by untrained singers (from the point of view of classical singing). They can even be seen as elements of vocal style in folk music, pop and rock, in which the larynx movement is normally unrestricted.

rare.²² There are similar complaints in writings from as early as the thirteenth century (Dyer 2000, 173). It seems that forcing the voice was the bigger problem as the normal advice is that the higher the voice goes, the quieter and sweeter the singing should be (see, for example, von Zabern in Dyer 2000, 169; Finck [1556, Book V] in MacClintock 1982, 62).

Because the change of register was technically difficult and led to major shifts in vocal colour, it is only natural that many sources recommend staying in one register. These include Zacconi (1596, folio 77); Caccini (1601, 6); and Praetorius (1619, 231; translation in MacClintock 1979, 164); as well as Cerone in 1613 (see Stark 2008, 58–59). In late sixteenth-century singing this was often not a problem for the basses or tenors. As we saw in “Pitch” and “*Chiavette*”, the vocal ranges of Palestrina’s music for the tenors and basses are generally d–e¹ and D–b^b, respectively. These can quite easily be sung entirely in one register (the chest voice). For falsettist sopranos, the same holds true except that they would sing their part entirely in the head voice. This leaves only the altos, with lines normally from a to a¹, and castrati and boy sopranos (d¹ to d² as a norm). It would appear that the castrati and boy sopranos could sing the soprano lines with relative ease in their natural registers, but the altos would have faced the same problems as modern tenors face on the high tenor lines of modern editions of Renaissance polyphony.²³ It seems likely that the altos would mostly have stayed in the head voice (in the modern sense) and thus avoided register shifts. This approach would also give the alto voice a different colour from the tenor when the two moved in the same pitch register. The altos and tenors were normally specialists and seldom seem to have switched from one voice part to the other.²⁴

²² “I myself have seen with indignation excellent singers become debased and deformed, with distorted and gaping mouths, with head tossed back, and bleating and barbaric cries, which (with preconceived opinion) they hold bellowing and singing to be one and the same thing, they ruin and deform the most beautiful music” (Finck 1556, Book V; translation in MacClintock 1982, 62). According to Stark (2008, 59), similar characterisations from the sixteenth century are found in the writings of Biagio Rossetti in 1529; Giovanni de Bardi in 1580; Vincenzo Galilei in 1581. One of the more astonishing pieces of admonishment comes from Daniel Friderici, writing as late as 1649 and cited in Wistreich (2000, 181–182): Friderici complains of clumsy sopranos and tenor singers with no falsetto who jump to notes an octave lower than written and create false harmonies.

²³ Wistreich (2000, 181–182) discusses the technical problems of singing the different vocal parts in Renaissance polyphony.

²⁴ Of the 135 singers in the Cappella Giulia during Palestrina’s second period at St. Peter’s (1571–1594) and who are listed in Rostirolla (1977), only seven sang more than one voice part during their time in the choir. Of these, two returned to the choir as adults after leaving it when their training as choirboy sopranos had ended. Three singers moved from soprano to alto while still in training, apparently because their voices had broken, and one other adolescent was marked in the pay listings as an alto, but sang soprano. Only one singer, Giovanni Battista Jacobelli, actually moved from tenor to alto. (Rostirolla 1977, 210–245.)

This might naturally be a question of experience and of mastering the repertory of a vocal part, but possibly it was also a reflection of different techniques.

There is some evidence that, by the early seventeenth century, a smoother transition between registers was expected of singers. Mostly this involved those who performed solos with extraordinarily wide tessituras, singing from a low bass register to a high falsetto range (the *bastarda* technique). Such cases might have been exceptions that did not concern the normal singers in chapel choirs, although some documents, such as a Monteverdi letter from 1627 (cited in Wistreich 1994, 13), seem to refer to singers moving over the break with ease. The first systematic presentations of how registers can be developed and joined smoothly are from the eighteenth century. (Wistreich 1994, 13–14; 2000, 184.) As late as the mid-1800s García (1984, 20) writes that it is easier for tenors than for baritones to combine the chest register with the falsetto, and that unifying the timbre of the two is difficult, yet crucial. According to Wistreich (1994, 14), such a unification was not the goal before the eighteenth century, only the smooth passage from one register to the other. The change to the kind of passage in which a singer moves from one register to another characteristic of modern operatic singing seems to have taken place gradually after the mid-1800s (see Stark 2008, 57–81).

Vibrato

The lower larynx position also plays a role in the character of the vibrato. There is no hard evidence against the use of vibrato in the late sixteenth or early seventeenth centuries. Possibly the most famous writing on the necessity of vibrato is in an extract from Book III of Praetorius's (1619, 219) *Syntagma musicum*. Praetorius wrote on the qualities of a fine voice: "...first, the requirement that a singer must have a pleasantly vibrating voice (not, however, as some are trained to do in schools, but with particular moderation)..." (translation in MacClintock 1979, 164). The comment in parentheses is intriguing, as it would seem to indicate that teaching vibrato was a common practice. Daniel Friderici, writing in 1614 and cited in Stark (2008, 129) writes of a trembling (*zitternd*), floating (*schwebend*) and pulsating (*bebend*) voice from the throat as a natural element of singing. Christoph Bernhard's views from the mid-1600s also seem to testify to vibrato as a general means of expression, even if Bernhard criticizes the use of a *tremulo* except in a few

appropriate places, such as the last note of a cadence (Kurtzman 2003, 391).²⁵ In his analysis of late sixteenth-century singing technique, Uberti (1981, 491) assumes that vibrato was a consistent element of church singing, but less prominent than it became later in operatic singing.

That voices were conceived as having vibrato is also apparent in the *Vox humana* (literally: human voice) organ stops, which date from the late sixteenth century. *Vox humana* is a reed stop of the regal class with a characteristic undulation or tremolo caused by a tremulant with a sound that most often reminds of the tremolo-like wavering of aged voices (Encyclopedia of Organ Stops 2012a). In Italian organs the *Voce Umana* or *Fiffaro* (*Piffaro*) was created with principal-scaled pipes mistuned with the Principale 8', which led to an undulating effect (Encyclopedia of Organ Stops 2012b). While there is no reason to assume that these stops were ever intended specifically to emulate the sound of choirs, it does connect the human voice with vibrato.

Even if sixteenth-century singers did use vibrato, the sound would not have been that of a modern, classically-trained singer. The modern operatic vibrato is the result of a pulsation in the cricothyroid muscle, the tensor of the larynx, and as such is a frequency vibrato.²⁶ The vibrato used by singers in non-classical music, on the other hand, is generated by a fluctuation in sub-glottal pressure, making it an intensity vibrato. (Sundberg 2000, 240.) It seems likely that because of the higher larynx position the vibrato used in the sixteenth and seventeenth centuries would have been more akin to the intensity vibrato of a non-classical singer than an operatic frequency vibrato. Vibrato would also have been a less dominant element of the timbre because vibrato is more perceptible among the higher harmonics, which in turn are less prominent in vocal techniques that use a higher larynx position (Uberti 1981, 490). Sanford (1995, [3.1.]) claims that the lower air pressure compared to modern operatic singing used by seventeenth-century singers would also have led to a less perceptible vibrato. It seems quite likely that sixteenth-century singing would as a general rule share the same characteristic of lower air pressure and less

²⁵ As Stark (2008, 123–130) shows, many early treatises connect comments on glottal articulation (for example, the *trillo*, a rapid repetition of the same note) and vibrato. Distinguishing whether the text is discussing glottal articulation or vibrato is not always easy. However, I agree with Stark that the evidence seems to support the assumption that vibrato was an element of sixteenth- and seventeenth-century singing.

²⁶ According to Stark (2008, 138–140), some physiological aspects of vibrato are still not fully understood. The general agreement is that vibrato is related to a neuromuscular tremor, a work-rest cycle by which muscles protect themselves with fatigue. A good example of this are the tremors experienced while doing push-ups.

noticeable vibrato. It would thus seem that vibrato was indeed a part of singing in the sixteenth century, but that vibrato was a less prominent ingredient of vocal sound than in modern classical singing.²⁷

Volume

Much has been made of the late sixteenth- and early seventeenth-century comments on the differences between the manner of singing in church (*nelle capelle*) and the manner of chamber singing (*nelle camere*). The two most famous descriptions are those of Gioseffo Zarlino (1558, 204) and Lodovico Zacconi (1596, folio 52v). They both make the point that in church it is customary to sing louder than in the *camera*, where a softer and sweeter manner is called for. Zarlino writes that in chamber singing one uses a more submissive and sweet voice and avoids yelling, while Zacconi observes that many are misguided in believing that singing is a question of loud shouting (*gridar forte*), because in chamber settings loud singing is abhorred (both cited and translated into English in Uberti 1981, 493). Vicentino (1555, 86; cited and translated in Schiltz 2003, 67) makes a distinction between the full-voiced singing needed in church (*con le voci piene*) and the softer singing of *musica da camera* (*con bassa voce...quando si canterà piano*). A few early seventeenth-century writers also make the same distinction (see Kurtzman 2003, 39; Schiltz 2003, 65). Of special interest is a letter from Scipione Gonzaga to the Duke of Mantua in March 1586 (cited and translated in Sherr 1980, 43), which mentions the papal singer Giovanni Luca Conforti. According to the letter, Conforti sang contralto in full voice in the papal choir, but in the chamber he sang soprano, sweetly and with more embellishments.

A few words of caution are in order. These citations, when put into context, do not necessarily appear as straightforward as when presented on their own. For example, the Zacconi citation is from a chapter on the teaching of singing. In the cited passage Zacconi (1596, folio 52 v) continues with a remark that in the chamber singers are not paid as are singers in the *cappelle*, but are gentlemen (*Gentilhuomini*). It is possible that the Zacconi citation actually says more about the

²⁷ Studies made by comparing the vibrato of operatic singers in the early twentieth to those of the latter half of the same century show that the vibrato has become slower and wider. This change might primarily be due to technical changes in singing, but it also points to vibrato being a cultural phenomenon and subject to changes in taste. (Stark 2008, 140–142.)

style of singing in the chamber than it does about singing in church. A professional singer in a bigger space is likely to sing louder than an amateur singer in a small space. In a similar manner, the Zarlino quotation is made somewhat more complex by Zarlino's (1555, 204) remark that by full voice he does not mean the yelling of beasts that he had just described above. It thus seems clear that sixteenth-century Italian theorists considered singing in church to be louder than the singing in the chamber, but whether this means that sixteenth-century singing in chapels would sound like yelling to our ears is a question worth asking.

Scholars have drawn differing conclusions from the references to chamber and chapel singing combined with analyses of the singing technique of the sixteenth century. Wistreich (2000, 182) believes that the sound of men and boys singing in the chest register at the tops of their ranges would have produced a "fairly strident sound", and Uberti (1981, 494) states that "Cappella singing was basically full voiced and *forte* in character", while Kurtzman (2003, 395–396) emphasizes that several sources warn against excessive force and volume even in singing in church.

If singing in the chapels was perceived as loud, the next question is: loud compared to what? Certainly loud compared to chamber-singing, which is often described as speech-like, but enough to be perceived as loud in our time? Perhaps one means of understanding the basic volume of the voices in the chapel is to combine voices with the instruments used in the sixteenth century. Preserved organs (or copies of Italian instruments of the sixteenth and seventeenth centuries) are an exceptionally good starting point, as are Renaissance sackbuts and cornetts. Experience with these instruments has shown that the basic volume needed from the singers is indeed fairly strong but well short of desperate shouting. A certain clarity of voice and bright vowel colours seem at least as important as the sheer volume of the singing.

Although the descriptions of ideal singing are not easy to interpret reliably, it is of interest that Sherr (1994, 608) claims that the preferred terms used in papal bulls and *motu proprio* for describing the ideal sound of the Papal choir are *sonora* and *canora*, perhaps best translated as sonorous or resonant.²⁸ Based on the evaluations of the singers in the papal chapel in 1565, not too many lived up to these ideals, with many being described as having a weak voice or no voice at all (Sherr 1994, 612, 614). Sheer strength seems not to have satisfied the censors either: Mattia Albo is

²⁸ Chapter III of the 1545 Constitution of the Papal choir states that in the audition the first thing to look for is a good voice (*primo considerandum est, si cantor examinandus habeat bonam et perfectam vocem*). No closer definition of a good voice is given.

described as having had a huge voice, but very little knowledge, and made a bad impression with his singing (Sherr 1994, 612). It seems that having a sonorous voice was indeed desired of a singer in a chapel choir, but sonority needed to be coupled with good musicianship.

Breathing

Compared to modern books on vocal instruction, sixteenth- and seventeenth-century writings on singing are surprisingly mute on the subject of breathing.²⁹ Most Italian sources refer to the chest (*petto*) and the main interest is in being able to sing sufficiently long runs of fast notes from the throat (Uberti 1981, 494; Greenlee 1987, 52; Wistreich 2000, 190; Stark 2008, 93–95). Perhaps the most interesting analysis is in Sanford (1995), in which the writer compares seventeenth-century French and Italian singing. Sanford's starting point is the difference between the two languages: in French music the emotional force of the text is achieved through subtle treatment of the consonants, while in Italian music the emotions are reflected mainly in the shading of vowels (Sanford 1995, [1.1.]). This expressivity of the vowels leads to "varied air pressure, air speed and air volume according to the dramatic and emotional declamation of the text" (Sanford 1995, [2.2.]). Although Sanford's approach is especially interesting from the point of view of the new monodic style of the early seventeenth century, it might also to some extent be applicable to late sixteenth-century polyphony. Combined with more discernible vowel colours, the ebb and flow of air use could help create a style of singing that is more varied than the modern legato approach to Renaissance polyphony.

Does the lack of interest in breathing suggest that breathing was not thought of as a central element of vocal technique, or does it mean that it was thought of as something so trivial and innate to good singing that it did not need to be mentioned? The first part of García's (1984) treatise on singing includes four pages (out of 221 pages) on breathing, and the simple exercises included were added only in the second edition. Yet García's vocal exercises demand a steady flow of air and great

²⁹ In an analysis of books on vocal pedagogy between 1928 and 1970, Burgin (1973) divides the areas of investigation as follows: pedagogy, breathing, phonation, resonance, range, dynamics, ear training, diction and interpretation. In the 803 books, papers and articles that he analysed, Burgin (1973, 174) finds roughly 1,000 statements that refer to breathing, as well as 150 theories on and 775 methods of breathing. Clearly, breathing is a major consideration in the vocal pedagogy of the twentieth century.

breath control. García (1984, 132) merely states that to achieve a steady air flow, the mechanics of the voice, the breath, the larynx and the pharynx all need to operate flawlessly. The exercises García recommends for a steady flow of air consist of four classes: tones held with equal force; drawn-out tones or *messa di voce*; tones drawn out with inflections; and repeated notes (García 1984, 132–147). Sanford (1995, [2.4]) points out that the ornamentation style in vogue in early seventeenth-century Italian music was strongly biased towards dynamic ornaments, such as the *messa di voce* and *esclamazione*. It is easy to argue that music from the turn of the seventeenth century actually includes material that reminds of García's exercises for achieving a steady flow of air and breath control. Perhaps we should not make too much of the lack of explicit references to breath control in the sixteenth- and seventeenth-century treatises.

Ornamentation

The key element in most writings on singing from the late sixteenth and early seventeenth centuries is the skill of singing florid passages. It is only natural that the guidebooks for improvised embellishment concentrate on the subject, but also the more general writings on singing tend to focus on the *gorgia* (literally: throat), here meaning the ability of the voice to sing rapid notes. That these rapid notes were expected to be articulated in the throat by sixteenth- and seventeenth-century writers is certain: the writers insist on clarity and velocity as the technical aims. (Wistreich 1994, 14; Greenlee 1987, 50.)

The basic method, which will be discussed in more detail in the next chapter, was to substitute increasingly complicated runs in place of cadential figures in long note values. Hermann Finck's *Practica musica* from 1556 shows a typical application of this method (Example 1).



Example 1. Cadential ornamentation from *Practica musica* (1556, Book V) by Hermann Finck.

Although the runs shown in Example 1 appear quite rapid, they are child's play compared to the extreme passages in many late sixteenth-century treatises on improvised ornamentation. An extract from Cipriano de Rore's madrigal *Ancor che col partire* (Example 2) with seven late sixteenth- and early seventeenth-century diminutions shows the virtuosity expected of the greatest performers.

Example 2. Late sixteenth- and early seventeenth-century diminutions on Cipriano de Rore's madrigal *Anchor che col partire* (Erig and Gutmann 1979, 206).

The ability to sing such passages was known as *dispositione di voce*, a disposition or gift of the voice. Many sources make it clear that such a disposition was not common.³⁰ Those who had the gift could sing rapid passages making the individual notes clearly distinct, perform all the rhetorical ornaments and have a good *trillo*, the ability to repeat the same note quickly. (Greenlee 1987, 47–48; Wistreich 2000, 186–187.)

Both Greenlee (1987) and Wistreich (2000) emphasize that the ornaments, the *gorgia*, were sung from the throat and that this technique is difficult for today's classically-trained singers to achieve. As Wistreich (2000, 190) puts it: “The ‘*trillo*

³⁰ For example, Mersenne (1636, 355) rebukes singers who sing shakes with either their lips or from the stomach (translated in MacClintock 1979, 171). It is apparent that some singers without the necessary gift resorted either to diaphragmatic articulation or to syllables such as *gnu, ga, bi* or *vi* (Greenlee 1987, 49).

articulation' in the throat can only work if the voice is not pressured in the larynx, the mouth is relaxed and the dynamic level is not too high". This is supported by Stark (2008, 137), who believes that glottal articulation is managed better by singing with a lower sub-glottal pressure.

Greenlee (1987, 52) considers the most common modern classical means of articulation to be "woefully inadequate in the performance of embellishments". Greenlee (1987, 52–53) compares the sixteenth- and seventeenth century technique of controlling pitches to the tonguing of a brass player: each note and pitch is rearticulated. In modern classical singing articulating fast notes with diaphragmatic articulation is akin to a trombonist using only the slide to move from pitch to pitch: the result is a quick portamento from tone to tone. The agility of the late Renaissance solo singer seems to be achievable only through a less fixed larynx position, glottal articulation and less volume than is expected of singers today.

It is worth noting that Stark (2008, 126) raises doubts that glottal articulation could physiologically be possible in figures where pitches reverse direction. This is due to the pitch-changing mechanism, in which the antagonistic actions of the cricothyroid and thyroarytenoid muscles require more time than in the repetition of one note or in ascending or descending scales. Stark (2008, 125) suspects that singers in the sixteenth and seventeenth centuries may have used two alternative articulations for fast passages: glottal articulation and legato articulation. Without specifying the physiological process, Wistreich (2000, 190) proposes that the writings could describe a technique that would have combined a simultaneous legato or portamento and glottal articulation.

If much of the modern pedagogical material on singing concentrates on singing itself, that is, on how to achieve a desirable voice or sound, the treatises from the turn of the seventeenth century focus on agility and style. Michael Praetorius (1619, 226; translation in MacClintock 1982, 163) simply states that a singer must "not only possess a beautiful voice, given by Nature, but also have a good intellect and thorough knowledge of music, so that he executes the *accenti* with judgement...". Other writers from Coclico (1552) to Mersenne (1636) all emphasize the importance of singers having the ability to produce clear runs and shakes that are formed in the throat. Ornaments were a central element of the expressivity and personal approach of a singer. The ideal was a mastery of agility combined with good taste in the use of the ornaments. (Wistreich 2000, 191.) This bias towards agility and a personal adaptation of the different ornaments to music still plays a major role in García's

mid-nineteenth-century treatise: of the 202 pages in the first part, almost 150 cover exercises for the agility of the voice and the different ornamental figures.

To what extent this culture of ornamenting lines played a role in singing in chapels is difficult to judge. On the one hand, a perfect disposition of the voice for agility was not amongst the explicit criteria for choosing singers for the chapels.³¹ On the other hand, it is worth remembering that much of the singing in the Roman chapels was done with ensembles of one singer per part, and at times, with only one or two voices with organ. In these cases embellishment would not only have been allowed, but also perhaps even expected. It is clear that embellishment was an important element in the training of choirboys, and many of the singers in the main Roman chapels were well-known virtuosi. It would be quite bold to assume that florid singing and at least a reasonable disposition for *gorgie* would not have been an element of the training and skills of the singers at the major Roman chapels.

Homogeneity and diversity

If we accept that classical singing technique in its modern form is a product of a development that began in the early 1800s, then some generalizations can be made on the basis of the discussion above. The lower larynx position with its implications of greater volume, more unified vowels, darker sound and more prominent vibrato but less agility appear to be the most important characteristics not present in a sixteenth-century singing technique or style of singing when compared to modern classical singing. It is also possible that with the greater emphasis on personal style or taste and agility, voices were less generic. Modern vocal training can be defined as generic-centred, which means that a singer's voice should at the end of the training be easily recognizable, for example, as a certain type of soprano or tenor. This mechanism is strengthened by universal archetypes known through recordings.³² I believe it is reasonable to assume that in the sixteenth century ideals of sound would have been much less universal, perhaps tied to the school of one teacher or one cathedral, or, at best, one region. This would mean that in the Roman chapels with singers from many parts of Europe, the diversity of sounds and manners of singing

³¹ For example, according to Chapter III of the Constitution of the Papal choir from 1545, the areas of investigation in the audition were whether the singer had a good voice; whether he mastered chant, polyphony and improvised counterpoint; and whether he was literate.

³² I am grateful to John Potter for pointing out this generic-centeredness to me.

could have been much greater than our modern ideal of a blended ensemble allows.³³ Without pushing the point too far, the vocal polyphony of the Renaissance period might never have been performed with voices as homogenous as those of today.

Given all the evidence, we are still left with the fundamental question: what did the singing sound like? We can fairly comfortably claim that it did not sound like modern operatic singing, as that technique seems to have emerged more than two centuries after Palestrina's death. But this is where clarity ends. The assumptions made by scholars of how medieval or Renaissance singing sounded vary so greatly that it is hard to avoid the impression that the treatises and other writings from the thirteenth to the seventeenth century simply do not supply us with sufficient information to draw clear conclusions about singing technique or sound. While Stark (2008, 33–36) finds support for the *chiaroscuro* ideal of Western classical singing, Uberti (1981), Greenlee (1987) and Wistreich (2000) all emphasize the differences from modern classical singing. While Dyer (2000) emphasizes the many medieval references to the sweetness and brightness of the voice, McGee (1998, 120, 143) believes that eastern Mediterranean singing and the music of India could be a closer comparison to the sound and style of medieval singing. Mason (2000, 205), in turn, names popular and jazz singers, as well as Mediterranean folk singers as possible models for pre-Romantic singing.³⁴ Potter (1997, 313) stresses the colour and shape of the sung language over an ideal of the quality of tone;³⁵ Planchart (2007, 31) refers to the instrumental ensembles of soft instruments from the Renaissance period and advocates a focused and unforced tone; and Blachly (2007, 16) calls for an attractive sound with a minimum of vibrato. Even though the last two writers are giving practical guidance, they clearly base their views on the writings of the Renaissance period.

³³ This view is to some extent enforced by the definitions of the master of papal ceremonies in the early sixteenth century, Paris de Grassis, who described the Spanish sound as lamenting, the French as learned and the Italian as sweet (Sherr 2012b).

³⁴ I would add one group of singers as a possible model: untrained, but experienced choral singers with good natural voices. They use the darkened voice much less than professionally trained singers and have a less prominent vibrato. Many choral singers have a resonant voice without having the kind of volume associated with operatic singers. They often find singing florid passages easier than their professional counterparts, and even show the same kind of problems in moving between registers as the sixteenth-century sources describe. Good choral singers also manage to sing relatively long phrases without being all that aware of a breathing technique as such.

³⁵ The way the singers pronounced Latin would have played a role in how the music sounded. I have decided to leave pronunciation outside the scope of this study, as the differences to the modern Italianate pronunciation of Latin seem not to have been significant (Copeman 2004).

As Leech-Wilkinson (2007, 77) argues, much of the writing on performing early music is a description of modern practices, or put another way, is based on empirical evidence achieved through practice.³⁶ This does not mean we cannot glean any information on singing from the literary sources of the Renaissance, but the scarcity of the material and the difficulty of translating writing on singing into how the singing actually sounded leave too many empty spaces around the little bit of clear evidence that has come down to us. If we want to fill in these gaps to create an understanding of the sound, we will inevitably draw on our experience, taste or the traditions we know.

Human beings have the capacity to create astoundingly different singing sounds, as the countless different styles outside Western classical singing show. The reasons for choosing a certain manner of singing seem to be, above all, tradition and taste.³⁷ We repeat what we hear and what we like. Without recourse to the oral traditions of the sixteenth century, we are left hanging. I would suggest that without recordings we would have a very difficult time reconstructing the voices of the early twentieth century, let alone the late sixteenth century.

Summary and practical implications

Forming a view of what singing in the sixteenth-century Roman chapels sounded like is a frustrating task. But if we accept that there are no definitive answers, then we can find many elements in the documents and literature that can give us ideas for the performance of Renaissance polyphony.

The most reliable starting point is a negative one: the singing was not like modern operatic singing. As a higher larynx position before the 1840s seems to be well documented, we can deduce that some of the central ideals of operatic singing, such as darkened and uniform vowels, smooth and unnoticeable transitions between registers and the brilliance of the singer's formant would not have been possible in the sixteenth century. It is also quite possible, even likely, that the kind of uniformity

³⁶ The division into historical and empirical evidence is not one I have often come across, perhaps because the two so often go hand in hand. The clearest example is in Brown (1978, 167), where he refers to the sound used by choirs specializing in Renaissance music (in the 1970s) as light, forward and with little vibrato, and states that the justification for this solution is empirical rather than historical.

³⁷ Tradition and taste naturally go hand in hand. It is worth remembering that even traditions we think of as unchanging are in constant flux. A good example of this is the English cathedral choir tradition, which, as Day (2000) convincingly shows, went through many changes during the 1900s.

of sound modern ensembles can boast would not have been sixteenth-century reality, perhaps not even the ideal. A richer blend in the individual sounds of the singers would play its part in making the character of each voice part more readily discernible and thus render the polyphonic lines more independent.

Even if references to breathing in the sources are surprisingly rare, there is no evidence to suggest that a well-controlled breathing technique was not a natural element of singing in the Renaissance. In fact, the references to the *messa di voce* seem to suggest the opposite, as a steady crescendo-diminuendo requires good breath control. Vibrato also seems to have been an accepted part of singing, although it would probably have been closer to the type of vibrato used by non-classical singers rather than that used by modern operatic singers.

Several sources refer to singing in the church as being louder than chamber singing. Without knowing how soft chamber singing was, our best point of reference are period instruments such as preserved organs or cornetts and sackbuts, which we know were becoming increasingly common in polyphony towards the end of the sixteenth century.

One defining characteristic of Renaissance singing is the requirement for singers to be able to sing well-defined florid passages. While this skill was paramount for soloists, it is quite likely that this ability was one aspired to, and also used by chapel singers. While it is unreasonable to expect every singer who performs Renaissance music to develop the kinds of ability described by the sources, attempts at finding a clearer approach to the florid passages than is offered by modern legato articulation might give us practical ideas about how to approach the music.

In the end, we cannot reconstruct the voices of Palestrina's time. Some of the historical evidence does give us clues about the ideals and techniques of singing in that time, but it is not sufficient to form an unambiguous picture of the techniques and styles. Ultimately, the greatest value of the evidence might be that it provides ideas with which we can challenge prevailing conceptions and approach the music in a fresh way. After that, the empirical evidence becomes more relevant.

Improvisatory embellishment

Music has always been beautiful and becomes more so each hour because of the diligence and study by which singers enhance it; it is not renewed or changed because of the figures, which are always of one kind, but by graces and ornaments it is made to appear always more beautiful. Ludovico Zacconi, *Prattica di musica* 1596 (58v; translated by MacClintock 1982, 68).

We know therefore that the great composers, when they had their works sung, would often slap the choirboys, and scold bitterly the other singers, without distinction, whenever they used diminutions. They in fact preferred to hear their vocal pieces as written, whole and uncorrupted. André de Pape, 1581, in Barbieri 1994, 598.

There is no doubt that improvisatory embellishment was an important feature of performing vocal and instrumental music in the latter sixteenth century.³⁸ Whilst references to performance practice in this period are on the whole few and often indirect, the ornamentation practices are described in detail in numerous extant instruction books. Between 1535 and 1600, nine of these books were published in Italy. As listed in Brown (2002, x–xi), these are the following:³⁹

Silvestre Ganassi, *Opere intitulata Fontegara*, Venice 1535

Diego Ortiz, *Tratado de glosas sobre clausulas...*, Rome 1553

Giovanni Camillo Maffei, *Delle lettere...Libri due*, Naples 1562

Girolamo dalla Casa, *Il vero modo di diminuir*, Venice 1584

Giovanni Bassano, *Ricercare, Passagi e Cadentie*, Venice 1585 & *Motetti, madrigali et canzoni francese...diminuiti*, Venice 1591

Riccardo Rognoni, *Passaggi per potersi essercitare nel diminuir*, Venice 1592

Giovanni Luca Conforto, *Breve et facile maniera...*, Rome 1593 (possibly 1603)

³⁸ Embellishing or ornamenting can refer to decorating a single note or a longer passage. In literature, several concepts are used concurrently. Horsley (1951) and Brown (2002) predominantly use 'embellishment', McGee (1985) 'ornamentation'. Diminution, the practice of replacing one note with several notes, reflects the Italian *diminuire* that many of the sixteenth century writers use. The Spanish used *glosas*, the German writers knew the technique as *Coloriren*. In Latin, embellished passages were *ornatus* or *coloratus* (Horsley 1951, 5). *Passaggio* (passage), also used by the Renaissance writers, refers to a formula which is used to substitute a longer note with shorter notes.

³⁹ Brown (2002, x) lists ten, but as Bassano's two books form one entity, the first book being theoretical and the other containing embellished examples (Erig 1979, 22), I have counted it as one.

Giovanni Battista Bovicelli, *Regole, passaggi di musica...*, Venice 1594

Aurelio Virgiliano, *Il Dolcimelo*, ca. 1600

In addition, there are publications which, while covering a wide range of musical subjects, also discuss the technique and style of embellishing melodies. Of these, the three best known are:

Adrian Petit Coclico, *Compendium musices*, Nuremberg 1552

Hermann Finck, *Practica musica*, Wittenberg 1556

Lodovico Zacconi, *Prattica di musica*, Venice 1592

The authors of these books were musicians with various backgrounds. Ganassi was a viol and recorder player from Venice; Ortiz was a Spanish viol player, composer and maestro di cappella in Naples; Maffei was a doctor, philosopher and musician from Naples; and dalla Casa was the leader of a wind band in Venice. Bassano was a Venetian composer; Rognoni was an instrumentalist from Milan; Conforto was a Roman virtuoso singer and a member of the papal choir in the 1580s, while Bovicelli was a singer in the cathedral choir in Milan. Virgiliano's background is unknown but he seems to have been an instrumentalist. Of their northern counterparts, Coclico claims in his book to have been both a pupil of Josquin and a singer in the Papal choir; Finck was a German organist and composer; and Zacconi was an Italian singer and composer who worked in many parts of Europe. (Brown 2002, x–xi; Horsley 1951, 10.)

With the exception of Bassano, Maffei and Virgiliano, all the writers state explicitly that their rules apply to both vocal and instrumental performance (Brown 2002, xi). However, a little caution should be taken in drawing the conclusion that all the diminutions presented are equally suitable for voices and instruments. At this point, I think it will suffice to say that these instruction treatises point to improvisatory embellishment being an integral part of both instrumental and vocal performance practice in the latter sixteenth century.

A few questions arise. First of all, why the sudden surge in this kind of literature? Secondly, are these books of instruction descriptive or prescriptive, i.e. do they reflect the performance practices of their times or do they fall into the domain of theoretical treatises on how music should be performed? And thirdly, to what extent is the ornamentation shown in the books relevant to vocal music, to vocal ensemble music in general and to sacred polyphony in particular?

The need for books of instruction

On the face of it, it seems reasonable to assume that the rise of this kind of pedagogical literature would have been caused by a major shift in musical practices. But, as McGee (1985) convincingly argues, the tradition of embellishing musical lines is much older than the literature we are discussing. The formulae put forward by the writers of the late 1500s do not differ radically from those in use across Europe in the previous centuries. According to McGee (1985, 170–172) there was a stylistic change in the use of ornamentation around 1600, but that does not explain why so much didactic literature was published in the previous half-century.

Ferand (1966, 154) offers the explanation that the appearance of the books on instruction reflects a stage of “rationalization and standardization” in the development of ornamentation, that signals the end of “free and spontaneous, truly creative embellishment”. The implication here is that there was a shift from an oral (or aural) tradition to a written tradition.⁴⁰ Erig (1979, 16–18) discusses the evidence for the tradition of embellishing written music from the twelfth century onward and ties the appearance of the sixteenth-century instruction manuals with a more general shift to more completely notated music. A parallel but differing explanation might be inferred from Blume’s (1967) view of the Renaissance as a period in which musicians felt the need to theorize “because they felt the solid ground of tradition quaking under their feet” (Blume 1967, 6). If we accept Blume’s view, then these instruction manuals would tie in with the numerous theoretical treatises of the latter half of the sixteenth century.⁴¹ In addition to this shift in music and the need to formulate new rules, a few factors of a more practical nature might well have played a role in the flurry of didactic material on embellishment.

Another explanation could be that with the growth of the musical printing business and the rise of a musically educated middle class, books like these had a market. The fact that half of the books mentioned were published in Venice, which

⁴⁰ Ferand (1966, 154) goes as far to say that the ornamented compositions saved the performers “the trouble of inventing the embellishments themselves.” Ferand seems to assume that the embellished compositions were meant for performance as such. This would truly be a major shift from oral to written tradition, from improvisatory performance to the pre-rehearsed. Besides, any trouble saved in invention would certainly be lost in learning the demanding written embellishments (see reference to embellishment in pop music below).

⁴¹ Hale (1994) describes this encyclopaedic tendency as typical for the sixteenth century. This tendency becomes visible, for example, in dictionaries, guidebooks for tourists, handbooks for artists and books on social etiquette.

was the major location for printing music in Europe, could support this hypothesis.⁴² The greater independence and higher status of instrumental music in this period also goes some way towards explaining the surge of stylistic instruction manuals. Whereas singers had a traditional model of training as choir boys in the cathedrals,⁴³ there was no traditional educational system outside the cathedrals that could convey performing traditions to new generations of instrumentalists or singers outside the church (as suggested by Reynolds 1989a, 195), as well as to amateur musicians and aspiring instrumentalists and chamber singers.⁴⁴

Maniates (1979, 214–217) argues that a change in musical taste led to the musical and social prominence of the virtuoso singer. This in turn caused musicians, both amateur and professional, to aspire to fame as soloists. These aspirations created a market for educational books on singing – and led to the technical excesses often criticised in the early seventeenth century. The emphasis on singing is evident in the instruction books: after 1592 these concentrate on singing, whereas the earlier books were either primarily for instrumentalists or intended for both singers and instrumentalists. Judging by the fact that Vincenzo Giustiniani, writing in the late 1620s, complains that amateur singing has declined in his time, with professionals like Giulio Caccini taking over, it seems apparent that amateur singers played a major role in the early years of the new solo style (Maniates 1979, 124–125).⁴⁵

The reasons for the surge of didactic books on embellishment in the late 1500s are thus diverse. A new vocal style, the aspirations of both amateur and professional singers and instrumentalists, a shift from a purely oral to a more literate embellishment tradition, a general tendency for sweeping theoretical treatises and a growing market for educational books all go some way to explain the appearance of so many instructional books on ornamentation. The manuals from closer to 1550 reflect a traditional style replete with runs, while those from the last decades of the sixteenth century reflect the new solo style with a stronger emphasis on graces.

⁴² According to Bernstein (2007, 232) almost 4,000 Venetian music editions survive from the sixteenth century. The corresponding Roman production is ca. 230.

⁴³ There is a (perhaps idealised) description of the daily lessons of the boy choristers in the Roman schools of the early seventeenth century in Bontempi's *Historia musica* (cited in Battaglia 1977, 36–37; O'Regan 2008, 232–233). According to his late seventeenth century account the boys' day began with an hour of singing difficult works, followed by an hour each for the practice of the trill and passaggi. If this is even partially accurate, the boys' opportunities to acquire the needed skills for embellishments would have been excellent.

⁴⁴ Brown seems to imply this: "But the embellishment manuals were not primarily intended for such professionals..." (Brown 2002, 62, note 2). One large potential group outside professional musical training were women. Hale (1994, 270) points out that books in general were a means of gaining an education to women, for whom a formal training was rare.

⁴⁵ Caccini (1601, beginning of the foreword) himself seems to refer to the same when he refers both famous Italian singers as well as noble amateurs.

Extreme cases of virtuosity or common practice?

Ever since Kuhn's (1902) classic analysis of the sources, scholars have had to decide whether these instruction manuals are descriptions of prevalent practices, didactic attempts to change the dominant practices or examples of the extremities at times heard in performance.⁴⁶ The most critical voice has probably been that of Alfred Einstein (1971, 842). He described the manuals as "teaching examples and extreme cases, in which the possibilities of ornamentation, of the *gorgia*, are piled up to the point of barbarism and poor taste". Einstein did not believe the examples of the books of instruction should be taken literally, for if they were, they would be detrimental to the expressivity of the music (Einstein 1971, 227).

Kuhn (1902) and Horsley (1951) were fairly uncritical in their approach: they implied that the material provides a clear and fairly consistent picture of the prevailing sixteenth-century practice. Brown (2002, xiii) states that the sources "preserve personal, idiosyncratic versions of well-known compositions as they were performed by leading sixteenth-century virtuosi" and as such are the closest thing we have to recordings from the time. On the other hand, Brown does give us the most varied picture of how to apply the instructions in the sources. McGee emphasises the long history of the unwritten tradition of embellishment and the evidence that points to the systematisation in the sources of not just an Italian, but a pan-European tradition (McGee 1985, 169).

Brown (2002, 25) appears to hit the nail on the head when he compares these written diminutions to jazz transcriptions. The complex rhythms of Ganassi's (1535) *Opera intitulata Fontegara* are probably just an attempt to write down rhythmically-free ornaments. The well-nigh impossible task of the writers of the didactic literature could also be compared to trying to transcribe the rhythmic freedom or the melodic embellishments in the performance practice of modern pop singers: what almost any applicant of a talent competition has picked up quite easily by listening to the original performers would look very complicated on paper. It is no wonder Zacconi (1596, 58v) believed that it was better to learn diminutions by ear,

⁴⁶ There are excellent analyses of the sources with examples in Kuhn (1902) and Horsley (1951). Ferand (1966) gives a listing of the didactic literature of embellished polyphonic composition. Brown (2002, first edition 1976) is, in essence, a modern book of instruction based on the sixteenth century sources. McGee (1985) presents evidence that the ornamentation practice in the sources is the continuation of a long oral tradition, signs of which are to be found in music literature. McGee also gives practical guidance to performers. Erig (1979) is a collection of all the Italian pieces with more than two extant diminutions.

“because one cannot write down the measure and tempo in which it has to be delivered without error” (translation in MacClintock 1982, 69).

It is thus important to take the treatises with a grain of salt and to beware of treating them as descriptions of actual performances. In the same way as Baldassare Castiglione’s *Book of the Courtier* (2003, originally published in 1528) does not describe courtiers or life at court, but rather expresses Castiglione’s view of what an ideal courtier and an ideal court were like, the authors of instructional treatises were not objectively describing the embellishments of their time, but stating, in a notation that probably lacks the necessary subtlety, what they believed were ideal embellishments or at least embellishments superior to those of their colleagues. The information contained in these treatises is priceless in many ways, but it might still be worth approaching these writings with respectful caution. In our desire to understand what the music of the sixteenth century sounded like, there is a great temptation to treat these treatises, which are by nature prescriptive, as descriptive generalisations of a uniform performance practice.

However, on the basis of these sources and the other evidence presented in the literature on diminutions, it is reasonable to assume that improvisatory embellishment was an integral part of solo performances of Renaissance polyphony and that the sources give us an idea of what these embellishments might have been like, albeit perhaps at their most extreme, between 1535 and 1600.

Solo vocal performance

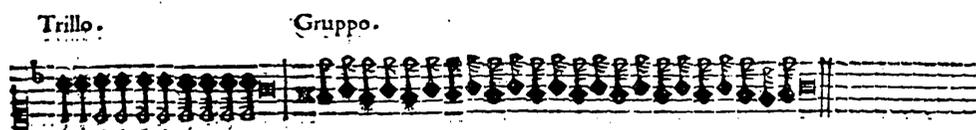
The evidence for embellishment in solo vocal performance is ample. Instruction manuals point out that the technique of embellishment is the same for instrumentalists as for singers. On this point there is no disagreement (see Brown 2002, xi; McGee 1985, 167; Erig 1979, 21; Horsley 1951, xx; Ferand 1966, 155). Maffei, Conforto and Bovicelli were all singers themselves and Finck and Zacconi continuously refer to singers and singing in their discussions on diminutions. Descriptions of virtuoso performances in the sixteenth century, as well as musical examples, especially from the turn of the sixteenth century to the seventeenth, make it clear that embellishing a melody *ad hoc* was an important aspect of solo singing.

The embellishments used and described in the instruction literature can be divided in to two groups: graces (*gratie*), which ornament one note, and passages

(*passaggi*), runs of faster notes that are substituted for longer note values in the melody.⁴⁷ The most common grace was the *tremolo*, which is equivalent to a combination of a modern mordent and trill, i.e. the trill does not normally last the whole duration of the note for which it substitutes (Brown 2002, 3, 5). The *gropo* (or *gruppo*) is a cadential trill between the tonic and the leading tone often ending via the lower third (Brown 2002, 3–4, 8).⁴⁸ Examples of the *tremolo* can be found in Example 1 and an example of the *gropo* in Example 2.



Example 1. *Tremolo* graces according to Diruta, *Il Transilvano* (1597, 18).



Example 2. The *trillo* and the *gropo* graces according to Caccini, *Le nuove musiche* (1601, 7).

Other, typically later sixteenth-century graces are the *trillo*, shown in Example 2, the rapid repeating of the same note,⁴⁹ the *clamazione*, beginning a phrase with a short figure or portamento from the third or fourth below the initial note, and the *accento*, performing a note as if it were dotted, with the shorter note being a step above the main note (Brown 2002, 4, 10–11). McGee (1985, 151–153) classifies the

⁴⁷ The terminology is from Brown (2002, 1). Francesco Rognoni (the son of Riccardo) makes a similar distinction in his *Selva de varii passaggi* of 1620 (Carter 1989, 10). A general expression for embellishment in singing was *gorgia* (throat), as good and clear singing of fast notes originated from the throat (Brown 2002, 1). Kuhn (1902, 23) divides the embellishments into *Manieren* (Brown's graces) and *Diminuiren* (*passaggi*). He also argues that the former are descendants of age-old flourishes added to chant as well as, for example, Hebrew and Indian music that is sung. The diminutions, on the other hand, were derived from improvised counterpoint, where one divided the long tenor (chant) note into smaller values in the descant (Kuhn 1902, 23–25). Kuhn also argues that vocal practices were the model for instrumental practices: "...beweisen die Herrschaft des Gesangs über die Instrumental-Musik..." (Kuhn 1902, 32).

⁴⁸ McGee (1985, 152–153, table 7.3) shows many variants of the *gropo* between the fourteenth and sixteenth centuries.

⁴⁹ Francesco Rognoni compared the *trillo*, when performed poorly, to the bleating of a goat (Carter 1989, 18).

graces in modern terms: mordent, turn, appoggiatura, trill and vibrato or their combinations.

The sources on embellishment are predominately focused on *passaggi*. The method used by most authors in the theoretical parts of their manuals is to introduce a phrase in long notes and then show either one or several ways to divide these notes into *passaggi*, usually proceeding from simple to more complicated. In its simplest form a *passaggio* is a run connecting a melodic leap, for example, filling in the interval of the fifth. The *passaggi* introduced in the sources vary from these simple forms to rhythmically complex, very fast and long runs with large intervallic leaps. In most cases, the *passaggi* are clearly cadential formulae. A good example of the basic method can be found in Example 1 in the previous Chapter ‘Vocal technique and sound’. Another example is the approach advocated by Adrian Petit Coclico, who claimed that his method followed the example set by Josquin. Example 3 shows some of Coclico’s suggestions for substituting ornamented runs for simple cadential passages. Coclico’s definitions of the characteristics of the different alternatives are quite expressive in themselves.



Example 3. Adrian Petit Coclico’s diminutions from *Compendium Musices* (1552)⁵⁰

⁵⁰ MacClintock (1982, 32) translates Coclico’s definitions in the following manner: *simplex cantus*, simple melody; *elegans*, elegant; *communis cantus*, ordinary melody; *caro cum sale et sinapio condita*, meat seasoned with salt and mustard; *planus*, plain. Coclico (1552) also uses *crudus* (crude) and *caro* (meat) to

The treatise that comes from closest to Palestrina's circle is Giovanni Luca Conforto's *Breve et facile maniera d'essercitarsi a far passaggi* (1593). As we have seen, Conforto (also known as Conforti) was a papal singer in the 1580s. His treatise does not, however, differ radically from the other treatises. A good example of his *passaggi* is evident in Example 4.



Example 4. Embellishing an ascending perfect fifth from Giovanni Luca Conforto's *Breve et facile maniera d'essercitarsi a far passaggi* (1593, 13).

In a letter from Scipione Gonzaga to the Duke of Mantua written in April of 1586 (Sherr 1980, 43), Gonzaga describes Conforto's embellishments as being in Neapolitan style. While there is no elaboration of this reference, it does indicate that there were recognisable characteristics in embellishment styles, and not only amongst individual performers, but also of major Italian musical centres.

Towards the end of the sixteenth century, the *passaggi* began to be associated more with the expression of emotions than with technical virtuosity, but as McGee (1985, 171–172) demonstrates, the embellishments themselves showed little change from earlier decades. During the same period, the balance in improvisatory

define undiminished melodies, and *conditus sale* (with salt), *condimentum* (with condiments), and *coloratus* (coloured) to define diminished passages (MacClintock 1982, 32).

embellishment began shifting from *passaggi* to smaller, briefer ornaments (*gratie*), as Kurtzman (2003, 397–398) convincingly argues.

In addition to the tables of *passaggi*, the instruction books include embellished works. In most cases, only *cantus* has been embellished, but in some cases several parts are embellished. The best introduction to these works is Erig (1979), who presents all the polyphonic vocal pieces for which there is more than one Italian embellished solo version between 1553 and 1638. Example 4 shows three diminutions of the beginning of Palestrina’s madrigal *Vestiva i colli*. The top five parts are those of Palestrina’s madrigal and below them are diminutions on the *canto* by dalla Casa, Bassano and Rognoni. Of these, the dalla Casa and Bassano examples are intended for singers (or instrumentalists), and the Rognoni for instrumentalists.

Prima parte Giovanni Pierluigi da Palestrina

Canto
Fe - sti - va'i Fe - sti - va'i col - - - li'e le cam - pa - gn'in -

Alto
Fe - sti - va'i Fe - - - sti - va'i col' - - - - li'e

Quinto
Fe - sti - va'i

Tenore
Fe - sti - va'i

Basso
Fe - sti - va'i

dalla Casa
Ve - sti - va'i Ve - sti - va i col - - - li e le cam - pa - gn'in -

Bassano
Ve - sti - va'i Ve - sti - va i col - - - li e le cam - pa - gnie in -

Rognoni
Modo di passeggiar con diverse inventioni, non regolate al canto

5

The image displays four systems of musical notation for a vocal and instrumental ensemble. Each system consists of five staves: a vocal line (top), a second vocal line, a third vocal line, a piano accompaniment (middle), and a bass line (bottom). The lyrics are in Latin and are written below the vocal staves. The first system includes a measure number '5' above the staff. The lyrics across the systems are: '-tor - - - - - no in - - - - - tor', 'le cam - pa - gn'in - - - - - tor - - - - - no in - - - - -', 'Fe - - - - - sti - v'i col - - - - - li e le cam - pa - gn'in - - - - -', '-tor - - - - - no in - - - - - tor', '-tor - - - - - no in - - - - - tor', and 'Fe - - - - - sti - v'i col - - - - - li e'. The instrumental parts feature various rhythmic patterns, including steady runs and leaps.

Example 5. Diminutions for Palestrina's *Festiva i colli* (Erig 1979, 347–349).⁵¹

As Example 5 shows, the diminutions for the voice feature steady runs up and down the scale while the instrumental embellishment shows more leaps and

⁵¹ Palestrina's music was well represented in the embellishment literature. All in all, twelve Palestrina works were published in embellished form in instruction manuals. Although the most popular of these were his madrigals *Vestiva i colli* and *Io son ferito*, the top lines of many of his motets also provided suitable material for embellishment. The most often represented composer in the treatises is Cipriano de Rore with 42 different works. (Ferand 1966, 161–168.)

rhythmic variety. While this difference between vocal and instrumental embellishment was quite usual, more acrobatic achievements could also be expected of singers, as Example 2 in “Vocal technique and sound” shows. But as a starting point for vocal embellishment, the Palestrina example above gives a good idea of the basic method. Runs were substituted for long notes, and cadences were ornamented according to established formulas.

Although there was consensus on the embellishment methods for instrumentalists and as singers being similar in principal, in practice there were differences in their application. Instrumentalists could perform larger intervals and fast notes with greater ease than could singers. There is also evidence in the sources that all singers did not have the ability to perform *passaggi* and were better off not attempting them; for example, Zacconi (1596, 58v; translation in MacClintock 1982, 69) believed a singer must do *gorgia* well or not at all.

As became apparent in the previous chapter, writers of the period paid quite a lot of attention to the proper way to sing embellishments. The key concept was *dispositione (di voce)*, probably best translated as a talent for singing florid passages. This talent was not common to all singers, and some of the writers seem to have thought that a singer either had this ability or did not, whilst others believed it could be acquired with practice. Attributes of this capacity were velocity and clarity, good taste and the skill of varying the embellishments often being added to this list. (Greenlee 1989, 47–50.)

Many of the descriptions of proper embellishment are negative. For example, in his remarks to the reader, Francesco Rognoni writes (see Erig 1987, VI) that a good singer will perform the *passaggi* on vowels and not on syllables such as *gnu*, *gu*, *bi*, *vi* etc. This seems to imply that some singers in Rognoni’s circles attempted to achieve instrumental clarity with their tongues or lips.⁵² Finck (1556, Book V; translated in MacClintock 1982, 64) mentions *coloraturae* of the tongue, which is used in solmisation⁵³. Finck goes on to say that, in singing the *coloraturae* of the throat, some singers sound like bleating she-goats. Other negative descriptions include diminutions sung on bad vowels: Maffei thought that ‘u’ created a sound like a howl, ‘i’ was like a lamenting animal, and ‘a’ was dangerous because it sounded like

⁵² The list of syllables Rognoni gives is surprising. *Gnu*, *gu*, *bi*, *vi*, *si*, *tur*, *bar* and *bor* seem quite difficult syllables to sing quickly on.

⁵³ Does this mean pieces were sometimes performed on solmisation syllables? Would Finck have mentioned solmisation if it was only a method for rehearsal? Reynolds (1989a, 191) mentions a performance of a mass in 1481 on solmisation syllables.

laughter. Durante in turn likened embellishments on 'i' to neighing and 'u' to howling (Greenlee 1989, 50).

According to the sources the embellishments were to be articulated in the throat (*gorgia*). Greenlee (1989) discusses the matter at length and suggests that the embellishments could have been created with a partial glottal stop, which could have provided the singer with both velocity and clarity.⁵⁴ There might be a connection between this glottal technique and chamber singing which, in the sixteenth-century texts, was thought of as being much softer than *cappella* singing and more like speech, with a lower subglottal pressure than is used in modern classical singing (Uberti 1981, 491–493; Wistreich 2000, 188–189).

Embellishment in ensemble singing

On embellishing music in ensembles with one singer or instrumentalist per vocal part, the sources appear to be consistent: the style is the same, but diminutions are fewer and simpler. Graces are not mentioned, but the same principle could apply to them. (Brown 2002, 53; McGee 1985, 176–177.) According to McGee (1985, 180), ornamentation of the *superius* or *cantus* of works began to be heard towards the end of the fifteenth century and spread to the other voices, becoming more elaborate during the sixteenth century.⁵⁵

The most explicit rules are laid down by Camillo Maffei (1562, 58–61; translation of rules in MacClintock 1982, 52–53). Maffei restricts diminutions to cadences only, although he does allow passing from one note to another with some decoration. The second rule is that in a madrigal one should make only four or five diminutions. The third of Maffei's rules is that diminutions should only be performed on the penultimate syllable. Fourthly, diminutions should preferably be placed on the vowel 'o'.⁵⁶ In his discussion of the rules, Maffei also states that one should not begin a

⁵⁴ I believe it might be worth looking at the concept of extreme velocity suggested in the sixteenth-century sources. This velocity is meaningful only in comparison to the slower note values and their absolute duration. I suggest that the tempo of the richly ornamented solo performances would have been slower than a polyphonic performance of the same piece. There seems to be some support for this hypothesis in the early seventeenth-century sources (see, for example, Kurtzman 2003, 456).

⁵⁵ McGee (1985, 179–180) cites a detailed description of ornamentation in an instrumental ensemble by Francisco Guerrero from 1586. Guerrero gives the greatest freedom to the top lines (played by shawms), although he says they should not embellish simultaneously. The contralto part should only embellish moderately, except when it is the top line. The lowest voices (sackbuts) evidently do not embellish.

⁵⁶ In his own example (see Example 4 for excerpt), most *passaggi* are on the vowel 'o', but two are on 'i'.

piece on a diminution. The fifth rule is that only one singer should embellish at a time.

Maffei embellishes all voices in his example, as do Finck and Dalla Casa in theirs (see Examples 6–8).⁵⁷ Coclico (1552) forbids embellishing the bass line, as it is the foundation of the work, and Nicola Vicentino (1555, Book IV, Chapter 42, 94r–94v⁵⁸; cited in Brown 2002, 56–57) states that singers should only embellish their lines in music of five voices or more to ensure that the full harmonies are heard despite the embellishments. But, on the whole, it seems all voices in an ensemble could and, in many cases, did embellish their lines. (Brown 2002, 56–57.)

If we take a closer look at the three extant embellished ensemble examples, we find that both Dalla Casa (Example 7) and Finck (Example 8) adhere to Maffei's rules fairly closely. On the whole, they embellish only one voice at a time. The *passaggi* are easily identified as either cadential or as filling in melodic intervals. They do, however, exceed the number of diminutions suggested by Maffei and the diminutions are placed independent of which vowels they appear on. The diminutions are fairly evenly spread and become more complicated (and faster) towards the end, as described, and criticised by some, like Zacconi (1596, 58v–59r; translated in MacClintock 1982, 70–71). Against Zacconi's (1596, 59r) advice Dalla Casa embellishes the tenor and *cantus* entries.

⁵⁷ These are the only three preserved examples of embellished pieces for ensembles in the books on diminutions from the sixteenth century.

⁵⁸ The page numbering seems to go awry at this point. 94r has the number 88 at its top.

Francesco Petrarca
(1304-1374)

Francesco de Layolle
(1492-540)

Lasciar il velo

(passaggiato secondo Maffei)

La - sciar il ve - lo o per sol' o per om - bra,
La - sciar il ve - lo o per sol' o per om - - - bra,
La - sciar il ve - lo o per sol' o per
La - - - sciar il ve - lo o per sol' o per om - bra,
- - bra, don - na, non vi d'i - o, Poi ch'in me co - gno - sce -
don - na, non vi vid - d'i - o, Poi ch'in me co - gno - sce -
om - bra, don - na, non vi Poi ch'in me co - gno -
don - na, non vi vid - d'i - o, Poi ch'in me co - gno - sce -
ste il gran - de - si - o ch'o - gn'al - tra vo - glia, glia Den tr'al -
ste il gran de - si - o ch'o - gn'altra vo - - - glia, al - tra
sce - ste il gran de - si - o ch'o - gn'altra vo - - - glia, al - tra
ste il gran de - si - o ch'ogn'al - tra

Example 6. Beginning of Giovanni Camillo Maffei's diminutions from 1562 for ensemble to François de Layolle's madrigal *Lasciar il velo* (Uberti 2012).

Canto
 Tan - to mi piac - que pri - - - ma il

Alto
 Tan - to mi piac - que pri - - - ma il

Tenore
 Tan - to mi piac - - - - que pri - - - ma il

Basso
 Tan - to mi piac - que pri - - - ma il

dol - - - - ce lu - - - - me

dol - - - - ce lu - - - - me

dol - - - - ce lu - - - - me Ch'io pas - sai

dol - - - - ce lu - me Ch'io pas -

Ch'io pas - - - sai con di - lett'

Ch'io pas - - - sai con

con di - let - - to, pas - sai con di - let - - -

sai con di - lett' as - sai gran pog - gi

as - sai gran pog - gi Per po - ter
 di - lett' as - sai gran pog - gi Per po - ter
 to as - sai gran pog - gi Per po - ter
 Per po - ter

10
 ap - - pres - - - sar, per po - ter ap - pres - - -
 ap - - pres - - - sar, per po - ter ap - pres - - -
 ap - pres - - - sar gl'a - - - -
 ap - - pres - - - sar, per po - ter ap - pres - - -

sar gl'a - - - ma - ti ra - - - mi
 sar gl'a - - - ma - ti ra - - - mi
 ma - - - ti ra - - - mi
 sar gl'a - - - ma - ti ra - - - mi

15
 mi
 Ho - - - ra la vi - - - ta bre - - - ve,
 Ho - ra la vi - ta bre - - - ve, ho - ra la

Example 7. Extract from Cipriano de Rore's madrigal *Tanto mi piacque prima* with diminutions by Girolamo dalla Casa from 1584 (Ferand 1961, 57–58)

Dalla Casa's embellishments are more rapid than Maffei's, perhaps reflecting a change in taste over the twenty years or more between since the time these diminutions were published. Otherwise, dalla Casa seems to follow the same rules

described by Maffei. As in the solo diminutions, the diminutions consist mainly of runs along the scale to substitute for longer notes and cadential figures (see the alto part in bar 13). Normally, the diminutions do not add anything to the harmonic structure of the work, but simply make the surface of the work livelier.

Finck's 1556 diminution of a motet (shown in Example 8) is especially interesting given that the text is sacred. Yet there seems to be no real difference in approach to Maffei's diminutions from roughly the same time, although rather often Finck does diminish two parts at the same time. It is probably this feature that makes Finck's diminution look more 'composed' than those by Maffei or dalla Casa.

The image displays a musical score for a two-part setting, likely a motet, in G major (one sharp). The score is divided into four systems, each with a vocal line (treble clef) and a lute line (bass clef). The lyrics are in Latin and are written below the notes. Asterisks (*) are placed above certain notes in both parts of each system, indicating embellishments. Circled numbers 40, 45, and 50 are placed above the vocal line in the second, third, and fourth systems, respectively, marking specific measures. The lyrics include: "que, in-ser-tos-que i-", "tos-que, in-ser-tos-que, in-ser-tos-que", "i-psi nos tu-a", "i-psi nos tu-a", "dex-tra te-gat, nos tu-", "tra te-gat, nos tu-a dex", "a, nos tu-a dex-tra te-gat, nos", "a dex-tra te-gat.", "dex-tra te-gat.", "tu-a, nos tu-a dex-tra te-gat."

Example 8. Extract from Hermann Finck's embellished motet from 1556 *Te maneat semper* (Ferand 1961, 77). Ferand's asterisks denote the assumed unembellished original notes.

Before we move on to embellishments in liturgical and choral music, I would like to return to Ferand's and Erig's idea that the instruction books reflect a change in music, in which the music was notated more fully. According to this theory, aspects of performance as *musica ficta* and ornamentation, which were earlier left to the performer, began to be notated in both the copied and the printed choirbooks and partbooks. If this assumption is valid, then it would seem natural that it would be visible in the printed music of the time.

Cavichi (1977, 307) mentions that the one-, two-, and three-voice madrigals by Luzzasco Luzzaschi (ca. 1540–1607) include written-out embellishments. A passage from *O dolcezz' amarissime d'amore* (1601) for three voices in Example 9 is a good example of this.

che più lan-guis - co Che fa me-co il do - lor se ne gio -
 più lan-guis - co Che fa me-co il do - lor se ne gio-i -
 che più lan - guis - co Che fa me-co il do - lor

- i - - - - - sco se ne gio -
 - - - - - sco se
 - - - - - se ne gio -

same way as Luzzaschi's.⁵⁹ Gesualdo has definitely attempted to control the pace of musical events by writing out the runs. While Luzzaschi's embellishments can be viewed as the transcription of what was essentially an oral tradition, the Gesualdo madrigal is something quite different. This is controlled embellishment, taking the embellishments from the domain of improvisation into the domain of composition. Claudio Monteverdi's (1567–1643) madrigals from the same time show the same development. While this manner of writing might have been something of a novelty in the madrigal genre, it has precedents in sacred polyphony, as we shall see.

⁵⁹ Luzzaschi and Gesualdo would have been in close contact at the court of Ferrara. Luzzaschi was organist at the court and responsible for the famous *Concerto delle donne*. Gesualdo spent time at Ferrara in the mid-1590's.

Correte, amanti, a prova

Delli Madrigali A Cinque Voci (1613) - Libro Quinto (Numero 13)

Gesualdo da Venosa (c.1560-1613)

Soprano 1
Soprano 2
Alto
Tenor
Bass

A mi - rar me - co quel -
Cor-re -
Cor - re - - - te, a -
Cor-re - - - te, a-man-ti, a pro - - va, A mi-rar, a
Cor - re - - - te, a-man-ti, a pro - - va,
lo Cor-re - - - te a- man - ti, a pro - va,
- - - te, a-man-ti, a pro va, A mi-rar me-co
man - ti, a pro - va, A mi - rar me - co quel -
mi - rar me - co quel - lo, A mi-rar me-co quel -
A mi - rar me - co quel - lo, Cor-re -
Cor - re - - - te a - man - ti, a pro -
quel - lo, Cor - re - - - te, a-man - ti, a -
lo, me - co quel - lo, Cor - re - - - te, a-man - ti,
lo, Cor - re - - - te, a - man - ti, a
- - - te, cor - re - - - te, a - man - ti a -

Example 10. Extract from Carlo Gesualdo's madrigal *Correte, amanti, a prova* (Harmer 2012).

Improvisatory embellishment in sacred polyphony and choral singing

As the Finck example above shows, it seems to have made little difference to the embellishers whether the work was sacred or secular. This does not in itself imply that liturgical music was fair game for embellishment, as sacred music was often performed outside of a liturgical context.⁶⁰ The key questions are: Was liturgical music regularly embellished? Was embellishment the norm in choral performances?

Where the writers touch upon choral singing, they tend to agree that embellishments are not desirable or even possible to perform.⁶¹ Nicola Vicentino (1555, Book IV) makes it clear that there is a considerable difference in singing in church (*cantare in chiesa*) and singing in chamber (*cantare in camera*). In church the music is performed in full voice and with many singers (Vicentino 1555, Book IV, chapters 26 and 29). In church, the style of singing needs to be more restrained and less embellished (see Blume 1967, 23). Finck (1556, Book V; translated in MacClintock 1982, 64) states that chorus embellishment is difficult and leads to poor results. According to Reynolds (1989b, 195–196), the same view was held by Gioseffo Zarlino, who was in a position to enforce his views as the *maestro* at St. Mark's in Venice during the second half of the sixteenth century.

Although these comments seem quite strong and definite, there is evidence that speaks for embellishment even in choral performances, although the evidence is more circumstantial in nature. Already the very fact that Vicentino, Finck and Zarlino felt the need to address the subject suggests that there were choral embellishment practices.

It is also worth noting that many of the singers in the major Roman choirs were known as virtuosi soloists in their own right. Vincenzo Giustiniani, in his *Discorso sopra la musica* of 1628, criticizes Giovanni Luca [Conforto], who was a member of the Papal choir, for excessive *passaggi* (MacClintock 1982, 28–29).⁶² He also praises the passagework and extreme range of Alessandro Merlo, who was a tenor at the Cappella Giulia before being accepted into the Papal choir in 1561 (MacClintock 1982, 28; Rostirolla 1977, 154–155).⁶³ Wistreich (1994, 10) mentions an early

⁶⁰ It is worth pointing out that of the twelve Palestrina works that appear in embellished form in the manuals, nine are motets (Ferand 1966, 162–164).

⁶¹ By choral singing I simply mean performance with more than one singer per voice part.

⁶² This is quite interesting as Conforto's (1593) own treatise, *Breve et facile maniera*, features relatively straightforward embellishments, for the most traditional *passaggi*.

⁶³ Merlo was trained at the Cappella Giulia as a boy chorister by none other than Palestrina (Rostirolla 1977, 154).

seventeenth-century Papal choir tenor by the name of Giovanni Domenico Puliaschi, who could sing bass and alto with great virtuosity.⁶⁴ Although the presence of such virtuosi in the choirs does not prove that embellishments were used in choral performances, at least we know that there were singers in choirs who were capable of a high level of virtuosity. It also seems credible that such musicians would use at least some of these skills in their daily work, at least in any solo sections assigned to them.⁶⁵ It is also worth remembering that these singers were trained as boy choristers, and studying vocal embellishments was part of their curriculum.⁶⁶

As Reynolds (1989a, 196) points out, when embellishments were notated in liturgical music, they would always be performed. Example 9 shows a passage from an English work around 1500: the ending of Richard Hygons' *Salve Regina* from the *Eton Choirbook*. There is evidence that at the time the choirbook was created, the Eton choir consisted of seven clerks and ten choristers (Harrison 1967, xv–xvi). The highly sophisticated writing of Hygons' work thus seems to have been performed chorally.

⁶⁴ Both Puliaschi and Merlo are in all likelihood proponents of a technique called the *bastarda*, in which the singer (or player) incorporates into one richly embellished line a complete polyphonic piece. The *bastarda* singer had to have a wide range and reach low bass notes as well as the top notes of the *cantus* line. (Wistreich 1994, 11–12.) Perhaps these performances delighted their audience in the same manner as a Bob McFerrin improvisation or beatboxing does in our day, partly by virtue of the incredible skillfulness of the performer and partly by the ability of one person to perform a piece that normally requires many musicians.

⁶⁵ As Sherr (1987) has shown, the sections of a mass scored for fewer voices than the normal disposition of the mass were sung by soloists. These sections could well have given the singers a chance for more intricate embellishments.

⁶⁶ Besides the Bontempi reference to training of Roman choristers (see note 43), Praetorius's (1619, chapter 9) advice on the training of boy choristers testifies to improvisatory embellishment being a part of the curriculum of the choristers. The Praetorius passage on how to teach the Italian style to boy choristers is translated in MacClintock (1982, 163–170). A document from the 1580s on the musical training at the German-Hungarian College in Rome is quite consistent with the Bontempi description (O'Regan 2008, 233).

The image displays two systems of a musical score. The first system covers measures 195 to 200, and the second system covers measure 205. The vocal parts are labeled Tr (Tenor), M (Mezzo), C (Contralto), T (Soprano), and B (Bass). The lyrics 'a, sal' are written under the vocal lines in the first system, and 've.' is written under the vocal lines in the second system. The instrumental parts are represented by staves with musical notation.

Example 9. The ending of Richard Hygons' *Salve Regina* from the *Eton Choirbook* ca. 1500 (Musica Britannica 1973, 45).

Although Palestrina's works are by no means as richly ornamented as the florid style of Example 9, many of his compositions feature runs that resemble embellishments. Example 10 shows the beginning of the motet *Assumpta est Maria*. For example, the runs in the two *cantus* parts in bar four are clearly embellishments that remind us of the simple *passagi* in the Maffei and Finck diminutions in Examples 4 and 6. It is clear that the runs have an expressive meaning, as they appear on the syllable *coe-*, in *coelum*, "to heaven", but in effect they are embellishments.

at choral embellishment and refrained from any embellishment whatsoever as a matter of principle, or that the singers added some stereotypical ornamental figures in clear places such as cadences. In time these additions could become part of the piece, especially in works that were performed often. A prime example would seem to be the famous *Allegrì Miserere*, which has come down to us in richly ornamented form. There is no guarantee that many other works did not evolve in a similar manner, but because such traditions would have been oral, we are currently without knowledge of their existence.

It is also worth pointing out that a certain amount of heterophony seems to have been tolerated. As we saw above, Vicentino (1555, Book IV, Chapter 42, 94r–94 v⁶⁷; cited in Brown 2002, 56–57) wrote that music for four voices should not be embellished because the harmony is left bare. Singers should only add ornaments in music for five or more voices or make else sure that instrumental accompaniment is doubling the notated parts. This method appears in full swing in Agazzari's descriptions of playing from a bass line from 1607. Agazzari (2003, 9–13) divides the bass instrument players into two groups: the fundament (*strumenti fondamento*) and the ornament (*strumenti d'ornamento*), whereby the first group plays directly from the bass line and the latter group embellishes freely on this line during a performance of choral polyphony. The ornamenting instruments include the lute, *lirone*, violin and double harp. If in 1607 a combination of strictly performed vocal lines and free embellishment on these lines or on the harmony was possible in liturgical music, then it seems quite likely that such combinations would have been accepted much earlier.

In answer to the questions posed at the beginning of this discussion, liturgical music was often embellished, at the very least in the sense that the notated parts included written-out *passaggi*. It is possible that at some chapels, improvisatory embellishment was frowned upon in choral performances, but it is equally possible that elsewhere, such embellishment was accepted to a certain degree. When works were performed with only one singer per part, the likelihood of added *passaggi* and cadential formulae is much greater, as the singers were well trained in improvisatory embellishment and often even worked as soloists outside their responsibilities at the chapel. I would not go as far as to say that embellishment in choral performances was the norm, but, as Reynolds (1989a, 196) has pointed out, it does seem unlikely

⁶⁷ See note 21.

that a group capable of improvising counterpoint, such as the members of the Papal choir, could not work out a way to improvise embellishments.

If choirs did add embellishments, these would probably have needed to be simpler than solo or ensemble embellishments and restricted mainly to simple *passaggi*, such as filling in the interval of a fifth, and cadential figures. In the latter case, Zarlino's (1558, 249; translation in MacClintock 1982, 82) observation that practical musicians ordinarily embellished the part of the cadence that contains the syncopation might be an excellent clue. In the Palestrina example above (Example 10), the cadences in bars 5, 9, 16 and 20 feature syncopations in the *cantus 1*, *altus*, *tenor 1* and *tenor 1*, respectively. These would be the vocal parts that, according to Zarlino's advice, had the right to add cadential figures. And as these figures would have been drilled into the minds of the choristers as young boys, just as scales or triads are *de rigueur* in modern musical training, perhaps simultaneous ornamentation figures of two to four singers per part at clear-cut places would not have been impossible to realize. If this did happen, it is not difficult to see how an often sung work could accrue a layer of memorized cadential figures in such places.

Summary and practical implications

Improvisatory embellishment was a central element of late-sixteenth-century solo singing. The manuals that have been preserved provide valuable insights into the nature of the tradition of embellishment, even if their examples should be treated with caution. The instructional treatises cannot reliably capture a complex oral tradition, but their descriptions of the basic method, as well as its applications to music are of great interest. The treatises might also reveal the change from an oral tradition to a written tradition, a theory verified by examples of printed music from the dawn of the seventeenth century.

Solo voice performances relying on improvisatory embellishment seem to have emerged in the court rather than in the church. There might also have been a strong amateur aspect to the early tradition. In time, professional singers, most of whom were trained as boy choristers, took over at court from the amateur singers. Most often, these professional singers were also employed in chapel choirs. In this way, the traditions of chamber singing and chapel singing were never too far apart. It

seems clear that the teaching of embellishments played a growing role in the education of boy choristers during the latter half of the sixteenth century.

In ensembles with one singer per part, embellishments were expected. The rules given in the writings of many theorists are fairly unanimous: use the same elements as solo singers, but more sparingly; embellish one voice at a time; fill in long notes with diatonic runs; and embellish cadences with formulaic figures. The three preserved examples with all voices embellished follow these rules fairly strictly. There is no reason to assume that embellished performances of polyphony were not heard in liturgical contexts, although it is likely that the gravity of the context would restrict embellishment to its less extravagant forms.

Choral embellishment is a much less certain question. Several writers dismiss the practice, but other evidence speaks for its plausibility. Much notated music of the sixteenth century includes elements that appear to be written-out embellishments. Whether this is to be interpreted as an argument for adding more embellishments, or on the contrary, adding nothing more remains an open question. In any case, some evidence seems to support a tolerance of heterophony, of lines being embellished and performed simultaneously. Because improvisatory embellishment was an oral practice, it is possible that embellished elements gradually became an ingredient of at least partially memorized works. Whether such pieces were few or quite common is unfortunately lost to us. All in all, it seems that improvisatory embellishment in choral performances was possible, but not without its difficulties.

We will never regain the lost oral tradition of the sixteenth century, but a modern oral tradition of embellishment, based on the available sources and the embellishments written out in the music, is surely closer to the ideals of the sixteenth century than a completely unadorned reading, especially when there is only one singer per vocal part.

Chant

“...[chant] well purified of barbarisms and bad sounds.”

Palestrina in a letter to the Duke of Mantua, November 1587 (Bianchi 1995, 169).⁶⁸

Although practices surrounding the performance of chant in late sixteenth-century Rome might at first seem irrelevant to the performance of Palestrina’s polyphony, there is a body of Palestrina works that is intended to be performed *alternatim*, with alternation between polyphonic verses and chant verses. Such works include the Hymns of 1589 and the Magnificats of 1591.⁶⁹ In the Hymns, Palestrina has set only the odd verses polyphonically, while in the Magnificats, he set only the even verses, a practice characteristic of the Papal chapel. The alternating verses are to be performed either in chant or on the organ.⁷⁰

In many ways recreating the style of chant Palestrina would have expected is a hopeless task.⁷¹ Yet there is some evidence that might lead us to an understanding of the basic principles. These include the *Graduale* (1614), on which Palestrina’s work on reformed chant melodies in the 1570s might have had an influence; Palestrina’s *Mantuan masses*, which were based on reformed chant melodies; and the *Directorium Chori* of 1582, which was intended for use in the Cappella Giulia where Palestrina was *maestro di cappella* at the time.

Graduale 1614

In 1577, Pope Gregory XIII commissioned Palestrina and Annibale Zoilo (ca. 1537–1592) to purify the traditional plainchant melodies of their accumulated impurities

⁶⁸ “*canto fermo...cosi ben purgato di barbarism e dai mali suoni...*”

⁶⁹ Vols XIV (1942) and XVI (1943) of the Casimiri edition.

⁷⁰ This alternative of performing the chant verses improvised on the organ is implied in two letters from don Annibale Cappello, an agent of the Duke of Mantua to his employer in 1578. According to the second of these letters, Palestrina himself seems to have preferred chant to the organ verses. According to the first letter, the Cappella Giulia was divided into two groups of twelve singers with one choir singing the polyphony, the other the chant verses. (The texts are reproduced in Bianchi 1995, 168; see also Jeppesen 1954, xvi).

⁷¹ This might be reflected in the dearth of literature on the performance practice of chant in the sixteenth century, an intriguing subject that deserves a more nuanced and extensive discussion than is possible within the scope of this study.

and to ensure that the liturgical music books complied with the Tridentine reform. Palestrina and Zoilo were to revise the *Antiphonarium* containing the chant melodies for the canonical hours, the *Graduale* containing music for the mass and the *Psalterium*, which contains the antiphonal chants, especially the psalms, for the canonical hours. Both men seem to have set about their tasks with enthusiasm. Yet their work was either never finished or it was never printed once completed. The reasons for this turn of events are not clear, but scholars have advanced several theories.

Bianchi (1995, 165–166), Taruskin (2010, 631), Lockwood et al. (2001, 941) and Marvin (2002, 8) assume that Palestrina's work was never completed. Bianchi believes that the task was simply too much for two men and that their eagerness waned with time. Yet other scholars have assumed that the work of Palestrina and Zoilo was completed, and the reasons for not printing their work were political. This view is held by Pyne (1922, 112), Ackermann (2005, 10–11) and von Pastor (1955, 197), the last of whom writes that the task was completed by the end of the year 1578. According to Baroffio's (Baroffio & Sodi 2001, xxiii) thorough argument, the work was in essence completed and publication was expected in the early part of the year 1579.

If we accept that Palestrina and Zoilo managed to complete their work, we are left with the question of why it was never published. The main reason would appear to be that the reform was too radical. For some, any reform was too radical, as is apparent in the criticism of Don Fernando de Las Infantas (see Bianchi 1995, 164), who complained that the reformers ran a great risk of doing grave damage to the Church. As Baroffio (2001, xxii–xxiii) shows, Don Fernando had the backing of the mighty Catholic sovereign Philip II of Spain, and Pope Gregory might well have been in a position in which retreat seemed the best course of action. Von Pastor (1955, 197) in fact believed that the reform was too radical for the pope himself.

The need for this reform did not necessarily stem from the Council of Trent alone. According to Baroffio (2001, xvi–xix), the need to reform liturgical chant had been recognised centuries earlier. The process of unifying the various oral traditions that had developed in different parts of Western Christendom meant a choice between two possible methods: either an attempt to model plainchant according to the practices at the end of the first millennium (traditionalism) or to streamline liturgical chant according to the musical ideals of the day (modernisation). Both approaches had their supporters; for example, the *Missale* of 1570 had been

reformed according to the traditionalist view. On the other hand, Palestrina's and Zoilo's commission was a clear-cut case of the modernisation approach. Even if Pope Gregory XIII's commission of purifying the chant melodies of 'barbarisms, obscurities, contradicting elements and all superfluity'⁷² could be interpreted as a return to melodies uncorrupted by the ages, the aim seems above all to have been one of simplification, a cleansing of the melodies into a form more suitable for modern use, i.e. as the melodic material of polyphonic compositions and as the basis for improvised counterpoint.

According to Baroffio (2001, xxiii), Palestrina's task was to modernise the chants of the mass *proprium*, i.e. the *Graduale*. After the work was shelved in the late 1570s, it seems to have lain untouched for over a decade. A decision to print the work of Palestrina and Zoilo was made in January 1594, but the death of Palestrina in February 1594 added yet another twist to the tale. The rights to the material were transferred to Palestrina's youngest son, Iginio, who seems to have finalised the material and sold it to the printers Valesio and Parasoli. A dispute over the payment for the material led to a prolonged legal battle and in the end the publication came to nothing. (Baroffio 2001, xxiv–xxv.)

In the first decade of the seventeenth century, another step towards a new *Graduale* was taken. A new cardinal commission instated by Pope Paul V (1605–21) assigned the musical reform of the chant melodies to Felice Anerio and Francesco Soriano, both pupils of Palestrina. Their work led to the publication in 1614 of the *Graduale*.⁷³ Although the *Graduale* was never afforded the status of an official edition, it had a vast influence on the performance of liturgical chant. In some areas it remained in use until the dawn of the twentieth century. (Baroffio 2001, xxvi–xxvii.)

Although it remains unclear to what extent Anerio and Soriano had access to or used Palestrina's work on chant melodies, it is not far-fetched to assume that the principles of both parties were fairly similar and reflected the performance practice of chant in late sixteenth-century and early seventeenth-century Rome. The main principle, according to Baroffio (2001, xxviii), was to render the melodies suitable to the musical practice of the time. This is visible especially in the attempt to connect the music more closely to the words and their syllables. In practice, this led to the shortening of melismas and the reduction of note repetitions and ornamentation.

⁷² '...barbarismis, obscuritatibus, contrarietatibus ac superfluitatibus...' (Baroffio 2001, xxi).

⁷³ Owing to the death of the publisher, Raimondi, the *Graduale* publication was completed only in 1615 (Baroffio 2001, xxvi).

Similar principles seem to have been common throughout Europe. Many preserved collections of chant from the fourteenth to the sixteenth centuries testify to a trend of making chant melodies less complex, less melismatic and less ornate. A comparison of the beginning of *Popule meus* shows that ten sources from the fourteenth to the sixteenth centuries are all much closer to the melody from the *Graduale* 1614 (shown in Example 2) than to that from the *Graduale Triplex* (1979, shown in Example 1; Cantus 2013). This comparison between a seventeenth-century edition and a modern edition might seem strange, but it is used here for two reasons. Firstly, it is worth remembering that the policy of the Solesmes editions, of which the *Graduale Triplex* is one, was traditional in the extreme. The Solesmes editions were based on sources from the ninth to the twelfth centuries (see, for example, the Foreword to the *Graduale Triplex* [1979] for the sources) and thus represent traditions much earlier than those of the *Graduale* 1614. Secondly, the Solesmes editions are the prevailing sources for modern performances of chant, even in the context of sixteenth-century polyphony. On the one hand, comparisons between the two editions clarify significant differences between the chants of Palestrina's time and the chant practices of our time, while on the other hand, they also show how far the purification of chant melodies in the Renaissance had taken chant notation, at least from what the Solesmes editions assume to have been the norm roughly a millennium ago.

Interestingly, McGee (1998) argues in depth that many archaic and complex figures were preserved in Roman fifteenth- and sixteenth-century chant practices. Thus the purification of the melodies proposed by Pope Gregory XIII could either refer to these complexities or simply mean the streamlining of already fairly straightforward melodies of the type we find in other European sources of the Renaissance period. Whichever is the case, comparisons between the Solesmes editions and the *Graduale* (1614) clarify the difference between modern chant practice and the chant ideals of Palestrina's time.

IMPROPERIA

I

Duo cantores in medio chori cantant :

L 99
E 384

Mich. 6, 3

P Ψ . Opu-le me-us, quid fe-ci ti-bi? Aut in quo
 contristávi te? Respón-de mi-hi. Ψ . Qui- a e-dú-xi
 te de ter-ra Ægypti : pa-rá-sti Cru-cem Sal-
 va-tó-ri tu-o.

Example 1. The beginning of the *Improperia* from the *Graduale Triplex* (1979, 176).

Example 1 shows the Good Friday *Improperia* in the Solesmes edition (*Graduale Triplex*) of 1979.

A comparison with Example 2, featuring the same hymn from the *Graduale* of 1614, shows the more syllabic nature of the latter.

720 Ψ . Popule me us, quid feci ti bi? aut in
 quo cōtristau i te? respōde mi hi.
 721 Ψ . Qui a edu xi te de terra Ægypti :
 parafti crucem saluatori tuo.

Example 2. The beginning of the *Improperia* from the 1614 *Graduale* (Baroffio 2001, 294).

As seen in Example 2, the melodies of the 1614 *Graduale* are streamlined compared to the Solesmes edition. Melismas are mainly placed only on the stressed syllables, and the closing syllables of words are normally set syllabically. Ligatures are used at a bare minimum, and the rhythmic nature of the notation is quite plain. There are fewer leaps in the melodic line, and much of the melodic progression is made up of stepwise motion.

The same tendency is apparent in Examples 3 and 4. The offertory antiphon for the second Sunday of Advent, *Deus tu convertens*, is more melismatic in nature than the *Improperia*.

Example 3. The offertory antiphon *Deus tu convertens* from the *Graduale Triplex* (1979, 20).

Of-fer-to-riū. Deus tu cōuertens viuificabis nos, 17

& plebs tu a læta bitur in te: often-

de no bis Do mine misericordiam

tu am, & falutare tu um da no bis.

Example 4. The offertory antiphon *Deus tu convertens* from the 1614 *Graduale* (Baroffio 2001, 13).

If we compare the antiphon from the Solesmes edition in Example 3 with the *Graduale* 1614 version in Example 4, the same stylistic principles become even clearer. With time, and also aided by the editorial process of the 1614 *Graduale*, note repetitions had all but been eliminated, as had also ligatures and other rhythmic variations; melismas had been shortened and the overall nature of the melodies had become more syllabic and dominated by stepwise progression. For example, in the last phrase of the antiphon, *et salutare tuum da nobis*, the total number of notes in the Solesmes edition is 47, whereas the 1614 *Graduale* shows only 24 notes; the longest melismas consist of nineteen and seven notes respectively; and the 1614 *Graduale* has no melismas on unstressed syllables, while the Solesmes edition shows a flourish on the last syllable of *tuum*.

As we have seen, the reform of the late sixteenth and early seventeenth centuries was by no means solely responsible for the simplification process of chant melodies. It is only natural to assume that this process of simplification had gone on for centuries before Palestrina was asked to purify the melodies by Pope Gregory XIII. In the minds of Renaissance Romans, this purification meant in all likelihood producing melodies that seemed to them as natural, i.e. melodies of their own time: syllabic, measured and dominated by stepwise motion.

The Mantuan Masses

Palestrina wrote ten masses for the chapel of the Duke of Mantua in 1578–79 on commission from the Duke. The masses were published as volumes 18 and 19 of the Casimiri edition in 1954.⁷⁴ All are based on reformed chants. In a letter to the Duke written in November 1578, Palestrina writes that the chant of the *Missa Beate Maria Virginis* ‘is well purified of barbarisms and bad sounds’ (Bianchi 1995, 169),⁷⁵ a phrasing that echoes the words of Pope Gregory XIII in his commission of the musical reform from Palestrina and Zoilo.

The formulation in the letter to the Duke suggests that Palestrina stood behind the papal vision. Although the link between Palestrina’s work on the chant melodies and the 1614 *Graduale* is indirect, it nevertheless seems possible to deduce the kinds of chant melodies that Palestrina felt to be pure by analysing the melodies used in the Duke’s chapel in the church of Santa Barbara. The melodies appear in Palestrina’s Mantuan masses not only as compositional material, but also as antiphonal elements in many of the mass movements, especially in the *Glorias* and *Credos*.

The Mantuan masses are based on the chant melodies used in the Duke’s chapel of Santa Barbara. The Duke, who seems to have been a strident reformist and a headstrong character, had formulated his own *Missale* and *Breviarium* for the Chapel of Santa Barbara in 1568. After years of negotiations, the Duke finally managed to acquire papal approval for his liturgy in 1583. The liturgical reforms included cleansing and simplifying the chant melodies, apparent in the chapel’s *Kyriale*. (Jeppesen 1954, x–xi.)

The Mantuan *Kyriale* differs radically from the traditional Roman *Kyriale*. As Jeppesen (1954, xi) points out, this applies not only to the classification of festal days, but to the melodies themselves. The two main reforms are the unification of the tonality of each mass and an even more radical streamlining of melodies than is found in the 1614 *Graduale*. To ensure that all the movements of each mass were in the same mode, the editor or editors of the Mantuan *Kyriale* collected bits and pieces from several existing mass ordinaries and even composed sections to unify the masses. The melodies were shorn of many melismas, especially on unstressed syllables, and the tessituras were made to comply strictly with the theoretical ranges

⁷⁴ Edited by Knud Jeppesen (1954).

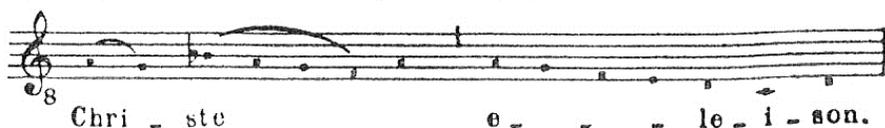
⁷⁵ ... è così ben purgato da barbarismi e dai mali suoni...

of the modes. (Jeppesen 1954, xi.) A good example of these aspirations is given in Jeppesen (1954, xi–xii). Example 5 shows the *Christe* from the traditional Roman *Missa in Dominicis diebus*.



Example 5. The *Christe* of *Missa in Dominicis diebus* from the Roman *Kyriale* (Jeppesen 1954, xi).

Example 6 shows the same phrase from the Mantuan *Kyriale*. The melody has been adapted to conform to mode II, the mode of the mass and has been stripped of many of its melismatic notes. The total number of notes in the phrase is indicative: in the Roman *Kyriale* the phrase has twenty-one notes, whereas in the Mantuan *Kyriale* it has a mere fourteen notes.



Example 6. *Christe* of *Missa in Dominicis diebus* from Mantuan *Kyriale* (Jeppesen 1954, xi).

It thus seems that the purification of the chant melodies, shown both in the *Graduale* of 1614 and the Mantuan *Kyriale*, was in essence a stripping away of the characteristics that made them different from the melodies used in the polyphonic music of the time. The melismatic nature of the chant melodies seems to have been especially problematic for late sixteenth-century reformers. But while the streamlined melodies give us an indication of what Palestrina’s ideal of chant melodies might have been, they do not tell us much about their performance. There is, however, a source that might shed light on the practices of the Vatican choirs, especially that of Palestrina, namely the Cappella Giulia.

Directorium Chori 1582

In 1582, only a few years after the pope's commission to reform the chant melodies, Giovanni Guidetti, a beneficed cleric at St. Peter's, published the *Directorium chori*. The work was intended for use as a guide to singing plainchant in the daily liturgy. In his preface, Guidetti states that Palestrina had inspected his work and made suggestions for corrections.⁷⁶ It would not be unreasonable to assume that Guidetti's work must fairly reliably transmit the practice of the Cappella Giulia for which it was written. That it was used at the chapel is verified by the purchase of the *Directorium chori* 'per servitio delli Clerici Cantori del Choro'⁷⁷ (Rostirolla 1977, 273).

Guidetti's *Directorium* comprises 573 pages of liturgical chant. The interesting aspect of his book is that all the chant melodies in the collection are measured. There are five different rhythmic values in Guidetti's system, as is evident in his foreword.

In the extract from Guidetti's foreword shown below, the first note in the second row on the left is a breve, the length of which, according to Guidetti, is one beat. The second note is a semibreve. Its duration is a half beat. The breve with a semicircle over it is to be sung for the duration of one and a half beats. It is followed by a semibreve in the chant example featured in the *Directorium*, the two notes forming a unit of two beats. The breve with a dotted semicircle (the modern fermata sign) is to be prolonged for the duration of two beats. The last two notes form a grouping signifying that the relevant vowel should be repeated. Guidetti does not specify the duration of this ternary figure. It could be interpreted either as a ternary figure that takes up the time of one tactus (compatible with a coloration and thus equivalent to the *tactus inequalis*) or as taking up one and a half tactūs (*tactus proportionalis*).

⁷⁶ '... Ioanni Petro Aloisio Praenestino capellae nostrae magistro, opus totum inspiciendum, ac corrigendu tradidi...'; Giovanni Pierluigi da Palestrina, master of our chapel, has inspected the complete work and offered advice on corrections (Guidetti 1582, Introduction).

⁷⁷ For the use of the singers in the choir.

que diuersimodè designatę p totū Directoriū  reperiūtur. Notę autē sunt huiusmodi:  Hęc nota  vocatur Breuis, cui subiecta syllaba ita Proferitur, vt in canendo tempus vnum infumatur.

Hęc  dicitur Semibreuis, & syllaba que sub illam cadit, celerius est percurrenda, ita vt dimidium vnus temporis impē  datur,

Hęc altera  que est Breuis sub semicirculo, paulo tardius proferenda est, adeo vt in cantu tempus vnū, & dimi  dium infumatur.

Hęc  que similiter est Breuis, & intra semicirculum habet punctum, magis est protrahenda, ita vt fiat mora duorum temporum.

Extract from Guidetti's *Directorium chori* (Guidetti 1582, Introduction), featuring directions for singing the different rhythmic values.

The first chant in Guidetti's *Directorium* is the *Domine labia mea aperies*, which begins the Matins, and is shown in Example 7. The measured character is immediately apparent.



Domine labia mea aperies.

Deus in adiutorium meum intende.

Example 7. *Domine labia mea aperies* from Guidetti's *Directorium Chori* (Guidetti 1582, 1).

The apparently strictly metrical nature of Guidetti's chant is at odds with both earlier and later views on performing chant. A fifteenth-century example comes from

Conrad von Zabern, whose views on singing chant are presented and analysed in Dyer (1978). Writing in 1474, von Zabern stressed that each note needs to be of equal length (*mensuraliter cantare*). According to Dyer (1978, 211), this was a frequent concern in the Middle Ages as the rise of liturgical polyphonic music had led to chant being sung in the same way as measured music, with longer and shorter note values in clear relation. Only differences of tempo were allowed, and these were dependent on the solemnity of the feast: the more solemn the feast, the slower the tempo should be. (Dyer 1978, 211.)

Von Zabern's ideas are mirrored in the French *Graduale Romanum* from the late seventeenth century. In the Preface, the editor, Guillaume-Gabriel Nivers (1697, 7), writes that the chants should be sung with the necessary gravity, with a natural, unforced voice and with each note measured similarly. Nivers seems to indicate a tempo for the breve, which is the most common note value in the edition: breves are to be sung as fast as a normal half-beat.⁷⁸ There are only two rhythmic values in the seventeenth-century French *Graduale Romanum*, the breve and the semibreve, and semibreves are few and far between. But if the rhythmic shape of Nivers' chant is plain, it is worth pointing out that in the *Antiphonarium Romanum* of 1696 he liberally adds embellishments (+) and *musica ficta* (x)!

Guidetti's notational system does not seem to have been in general use. For example, in the printed choirbook of the Palestrina *Hymns* of 1589 in the Cappella Sistina collection (Capp. Sist. 174), a scribe has added in the chant verses. The notes are rendered in breves, with only the occasional long. In the *Canto fermo sopra messe* from 1592 by Giovanni Matteo Asola, the chant is given in breves and semibreves, with longs for final notes (see Asola 1993). However, there is no notational apparatus compared to Guidetti's to indicate the lengthening of certain notes.

Even if Guidetti's *Directorium* is a one-time attempt at notating the chant practice at St Peter's, it might reveal something of the way sixteenth-century choristers at the Vatican interpreted traditional chant notation. Another piece of evidence, an excerpt from the Ordini (1600) of the same chapel, is less precise, but it does give some indication of the singing of chant at St. Peter's. Although the excerpt does not have the same emphasis on measured chant as Guidetti's guide, something

⁷⁸ '...et graviter canendus est, omnes aequali mensura trahendo Notas, voce naturali non violenta; breves autem citius utpote media mensura'; ...and is to be sung gravely, measuring each note similarly, with a natural and not a strident voice; however, the breves [should be] as fast as a half beat (tactus) (Nivers 1697, 7).

of the same calm approach is evident (Ordini 1600, 4; *Modo di salmeggiare* – ‘the manner of singing psalms’):

It is ordered that in singing the divine melodies of every canonical hour, it is not to be done in a rushed and hurried way (which is strongly denounced in the sacred decrees, especially those of the First Lateran Council) but slowly and with decent pauses, which are at their longest in the middle of the verses of the Psalms and at their end. Beginning a verse before the previous verse is finished needs to be avoided, with an appropriate distinction made between the festal and the ferial hours; for the greater the feast, the weightier and the more dignified, as well as sustained and controlled the singing must be.⁷⁹

This regulation advocates an even, calm approach with suitable pauses, which does not seem at odds with Guidetti’s *Directorium*. It also points out that the singing must be slower on feastdays than on ferial days.

One way of interpreting Guidetti’s work is that he was trying to ensure an even beat throughout the chant performance. While this is an aesthetic choice, there was one form of psalm singing in which such an approach was unavoidable.

Improvised counterpoint

Improvised counterpoint, in which singers improvised one to three parts above the chant melody, played a major role in the daily liturgy. It was one of the five skills tested in auditions for the Papal choir, the others being voice quality, the ability to sing chant, the ability to sing polyphony and literacy. The practice is mentioned several times in the choir’s 1545 Constitution ; for example, Paragraph 55 mentions the need to avoid singing in (improvised) counterpoint in the *Tenebrae* services (the text of the choir’s constitution is available in Haberl 1888a).

The most famous description of the style of improvised counterpoint used in Rome is found in Vincenzo Lusitano’s *Introdutione facilissima et novissima di canto fermo* from 1553. Practically all of Lusitano’s examples feature chant melodies with notes of even duration, whether notated with semibreves or breves. In fact, the

⁷⁹ [...] *Pero si ordina, che il cantare le Divine laudi in ciascuna Hora Canonica, non si faccia scorrendo, & in fretta (cosa tanto dannata dalli Sacri Canonici, & particolarmente dal primo Concilio Lateranense) ma adagio, & con decenti pause, massime nel mezzo di ciascun versetto de Salmi, & nel fine. Avvertendo cominciar il versetto, fin che l’altro non fra finito, con debita differenza tra ’uffitio solenne, & feriale; poiche quanto maggiore è la solennità, con tanto maggior gravita, & dignità si deve sostenere, & moderare il Canto. [...]*

methods Lusitano describes require a chant melody with notes of even duration. Examples 8 and 9 highlight the necessity of having evenly measured notes in the chant. Example 8 also gives some indication of the tempo: it had to be slow enough to accommodate four short improvised notes in the space of one chant note.

Esempio.

Canto Fermo. *Nota contra nota.*

A le lu ia.

Due note contra una nota.

Quattro note contra nota.

The image displays three systems of musical notation. Each system consists of two staves. The top staff of each system contains a chant melody with large, square notes. The bottom staff contains smaller, diamond-shaped notes representing improvised passages. The first system is labeled 'Nota contra nota' and shows a one-to-one correspondence between the large and small notes. The second system is labeled 'Due note contra una nota' and shows two small notes fitting within the duration of one large note. The third system is labeled 'Quattro note contra nota' and shows four small notes fitting within the duration of one large note. The lyrics 'A le lu ia.' are written below the first system.

Example 8. One, two and four notes against one note of the chant melody from *Introdutione facilissima et novissima di canto fermo* of 1553 (facsimile edition 1989, fol. 12r) by Vincenzo Lusitano.

Esempio.

Canto Fermo. *Alto sopra il canto Fermo.*

Soprano sopra del canto Fermo.

Tenore sopra il canto Fermo..

Example 9. Alto, soprano and tenor lines against a chant melody in the bass from *Introduzione facilissima et novissima di canto fermo* of 1553 (facsimile edition 1989, fol. 15r) by Vincenzo Lusitano.

Even if one argues that chant and improvised counterpoint were two distinct practices, it seems plausible to assume that the practice of singing over measured chant would play its part in making ‘free’ chant more measured.

Chant in octaves?

Even if we accept the measured nature of late sixteenth-century chant, we are left with who actually sang the chant. Was it performed by the same singers who executed the polyphony or was it left to chapel’s singing (*capellani*)? And if the chant was sung by the choir, did the sopranos sing the melody an octave higher than the other voices?

The Papal choir's Constitution of 1545 contains several references to chant. As mentioned, a candidate's ability to sing chant was one of the skills evaluated in the audition process (Caput III); in several paragraphs there are references to specific chants (for example, *Veni creator spiritus* in Caput XXXIV); and Caput XXXXII stipulates that the dean of the college was to teach new choristers the style specific to the Papal choir in singing the lessons, prophecies and antiphons. Especially important are the paragraphs Caput XXXXV to Caput L, which define the duties of the choir: the musicians were to sing Prime, Terce, the Mass, Sext, None, Vespers and Compline. As most of the liturgy was sung in chant, it seems evident that the Papal choir sang liturgical chant *in corpore*. They would have been joined in the singing of chant by the chaplains.

In many of the Roman churches, including St Peter's, the chaplains took care of much of the singing (Bianchi 1995, 17; Rostirolla 1977, 126). At times they were joined by some of the adult singers in the choir or, in some cases, the boy choristers (Rostirolla 1977, 135; Bianchi 1995, 18). But when the choir took part in the liturgy, it sang not only the polyphonic elements, but also the chant of the service, with the chaplains joining in. The singers were specialists in liturgical music; they were expected to choose and lead the music of the liturgy (Rostirolla 1977, 135), be it polyphony, improvised counterpoint or chant.

While the falsettists could well have sung the chant at the same pitch as the lower voices, the boy choristers or *castrati* could hardly have done so. According to Bianchi (1995, 18), the boy choristers joined the chaplains for some of the services. It is hard to imagine that they would not have sung the chants together. Chant was one of the major fields of training for the boys and a crucial element of the liturgy (Bianchi 1995, 17–18). If the boys were being trained to serve the church as singers, it would seem quite unlikely that their skills in chant were not put to use in the liturgy. It is hard to see any reason for assuming that chant could not have been sung in octaves.

Summary and practical implications

It is quite likely that the late sixteenth-century Roman performance practice of chant might strike us as considerably more monotonous than the chant performances we are used to hearing. In all likelihood, we would find the music slow and devoid of many of the flourishes and melismas we have come to associate with chant. It seems that the turn of the seventeenth century saw the culmination of a development in which the chant melodies were adapted to polyphonic music. This was also important from the perspective of counterpoint improvised above the chant melodies.

In singing the chant passages required in many Palestrina works, the twenty-first century performer can choose from many feasible approaches. If one does choose to perform in a manner that might have been familiar to Palestrina, then it is worth using the chant melodies from the liturgical books of the sixteenth and seventeenth centuries. Interpreting these melodies in the measured ways suggested by Guidetti or Nivers is one viable alternative, as is a rendering of all the notes in approximately equal length. The tempo in both approaches appears to have been fairly slow and solemn. In performances with boys or female sopranos, there is no weighty historical reason to avoid singing the chant sections in octaves. It is important to remember that the metrical approach described above need not lead to a mechanical performance; the natural shape of the words can still guide the singing. In performing the non-polyphonic verses, possibilities ranging from having the same musicians sing both the polyphonic and chant verses to having a separate group for the chant or an organist improvising on the chant probably all had their historical precedents. Experiments with added embellishments or *musica ficta* might also be consistent with the late-sixteenth century ideal of making the chant melodies as similar as possible to the melodic lines of polyphonic music.

Instruments

It is the most blessed varietie in the world, where a man may goe to so many Churches in one day, chose where he wil, so heavenly served, with such musike, such voices, such instrumentes, al ful of gravitie and majestie, al moving to devotion and ravishing a mans hart to the meditation of melodie of Angels and Saintes in heaven. Gregory Martin, 1581 (Martin 1964, 96)

Gregory Martin, an English Jesuit, lived in Rome from 1576 to 1578. In his book *Roma Sancta* (1581), Martin describes ecclesiastical life in Rome, and at times also touches on the music in the Roman churches. What strikes the reader is the diversity of the performances of sacred polyphony that Martin describes: unaccompanied singing, solos with organ accompaniment and wind instruments in the choirs. Martin's "most blessed varitie" seems to imply a much broader range of performance practices of sacred polyphony than we are accustomed to.

All through the twentieth century, the predominant way of performing Renaissance polyphony was *a cappella*, without any instrumental accompaniment.⁸⁰ Although there were definitely such performances in the time of Palestrina, they were by no means the only approach, perhaps not even the norm, as the following discussion will show.

The most common instrument to be used in the performance of sacred polyphony was in all likelihood the organ. All the major Roman churches had organs by the latter half of the sixteenth century. One important exception stands out: the papal palace, including the Sistine Chapel. The use of other instruments either to double voices or substitute for them is a subject over which scholars are divided. The prevailing view is that during the sixteenth century, wind and string instruments gradually became more common in sacred polyphony, yet some scholars believe the practice to have been far more widespread than the documentary evidence seems to indicate. In any case, by the early seventeenth century musicians such as Agostino Agazzari and Michael Praetorius list dozens of possible instruments for use in sacred polyphony.

⁸⁰ Originally, *a cappella* did not refer to unaccompanied singing, but to style. In the early seventeenth century, *a cappella* referred to sacred music written in the old style, as opposed to the modern *concertato* style (Holmes 2010). In this text, I use the expression *a cappella* in its modern sense.

The diversity of the Roman performances of sacred polyphony described above by the English Jesuit Gregory Martin, who visited the city in the 1570s, contrasts with the *a cappella* ideal that was born in the nineteenth and twentieth centuries. Based on what we know from sixteenth-century sources, Martin's description seems fairly reliable. The historical evidence firmly challenges the modern preference for unaccompanied performances.

A cappella

There are only two major European ecclesiastical musical institutions with documented *a cappella* traditions in the Renaissance period: the Papal choir and the Cathedral of Cambrai in northern France. Neither the Sistine Chapel nor the Cathedral of Cambrai had an organ, and there is no documentary evidence for hired instrumentalists in these sanctuaries (Reynolds 1989b, 191). In the Papal choir, the practice was theologically motivated: the pope is Christ's representative on earth, and the Papal choir is likened to a chorus of angels. And as there are no biblical references to angels with instruments, it is only natural that the Papal choir should sing without instrumental accompaniment. (Lionnet 1987, 5.)

It is possible that this theological argument was secondary and could be thought of as an attempt to give the prevailing practice of the papal chapel a gilded edge. It seems quite possible that the conservative papal chapel stuck to the old practice of unaccompanied singing because much of its music was from that earlier period and because it had the means to do so. Unaccompanied singing could well have been a general ideal in the performance of sacred polyphony, but an ideal that was possible only for a few institutions. Martin's (1964, 101) description of the Papal choir singing in the Sistine Chapel is telling: "The quyer standeth a loft at one side, with voyces like so many belles tuneable one to an other. No organs because the quyer is so ful for al partes." Martin seems to be saying that the Papal choir could sing without organ because it had a sufficient number of capable singers for all voice parts.⁸¹ As the analysis in Chapter IV of the institutions for which Palestrina worked has shown,

⁸¹ Reynolds (1989a, 75) gives Martin's "for al partes" two possible interpretations: for all voices or for all parts of the service (i.e. no need for *alternatim* organ verses). I am inclined to favour the first interpretation.

of the Roman churches, only the papal chapel and the Cappella Giulia regularly had more than two salaried singers per part.

It is quite likely that the influential example of the Papal choir had an impact on the other Roman choirs. From Annibale Capello's letter of October 1578 (see Bianchi 1995, 168) to the Duke of Mantua, it can be deduced that Palestrina considered *alternatim* performances combining polyphony and chant to be more solemn and thus better suited for festal days than performances combining polyphony with organ versets. At the same time, the letter implies that the latter practice was the norm at St. Peter's. (Reynolds 1989a, 75; 1989b, 192.) It is worth mentioning that even if Capello's letter does reflect Palestrina's views, it does not actually rule out the use of the organ in the polyphonic sections.

There is no doubt that *a cappella* performances were part of the practice of sacred polyphony during Palestrina's years in Rome. In the very least, the Papal choir sang its liturgical sacred polyphony without the support of instruments. It is feasible that the other musical institutions reflected this practice to some extent, but it is very unlikely that this would have been the prevailing practice, let alone the only one.

Bassus ad organum

The first instrument to play a regular part in the liturgy was the organ. Initially, the main uses of the organ in churches were to provide intonations for the choir and celebrants and to play *alternatim* verses. (Barbieri 1994, 587; Reynolds 1989b, 191–193.) By Palestrina's time all the major Roman churches, barring the chapels of the papal palace, had an organ or several organs at their disposal. It is worth pointing out that during Palestrina's sojourns at St. Peter's, the basilica had organs in the places where the choir sang most often (Rostirolla 1977, 136–140). In fact, so important was the organ in liturgical practice that Palestrina took St. Peter's organist along with him when he and eight singers provided the Lent music for the Confraternity of SS Trinità in 1576 (O'Regan 1996, 153).

This should not, however, automatically be taken as evidence that the organ was used to accompany polyphony. The organ was a major aid in the liturgy: it eliminated the problem of beginning pieces on a suitable pitch. This was not a minor consideration, as the diaries of the Sistine Chapel reveal: Sherr (1987) describes the

many fines exacted of singers who chose a poor pitch to begin a work when instruments were forbidden. The need for an organist could thus arise from the need for intonations and *alternatim* verses just as well as for accompanying polyphony. In any case, it seems that the role of the organist became more important from the viewpoint of the choir during the latter half of the sixteenth century. This is apparent in the wages of the organist at St. Peter's: in 1559, of the three scudi earned by the organist as his monthly wage, only .50 scudi or seventeen per cent were paid from the choir's payroll; in 1588 the Cappella Giulia paid 2.50 scudi (42 per cent) of the monthly total wages of six scudi for the organist (Rostirolla 1977, 165, 246).⁸²

Although sacred polyphony with separate organ parts began appearing only at the end of the sixteenth century, scholars assume that the performance of vocal polyphony with organ support seems to have been a valid practice well before this, even if, as D'Accone (1976, 617) puts it, the evidence is circumstantial.

In part, this circumstantial nature comes from the difficulty of interpreting the sources: it is not always easy to judge whether theorists are referring to the organist playing with the choir or alternating with the choir. A good example comes from Nicola Vicentino (1555, 46v–47r; translated in Schiltz 2003, 72), who described the need for an organist to be able to play compositions both a semitone lower and a whole tone lower than written to accommodate the choir going flat during a performance. Schiltz (2003, 72) lists similar statements by several sixteenth-century theorists including Gioseffo Zarlino (1558), Vincenzo Galilei (writing in 1581) and Girolamo Diruta (writing in 1593/1609).

Vicentino (1555, 47r) writes: "Since voices are unstable, it often happens that the choir will lower the pitch sung at the beginning by a semitone as they proceed toward the end. And later, when the singers reach the end, they sometimes go down a whole tone" (translation by Schiltz 2003, 72). Is he referring to accompanying the choir or to an *alternatim* work in which the choir's singing goes flat? If the entire choir manages to go flat as much as a whole tone while being accompanied, it either implies fairly dreadful singing or accompaniment so discreet that the singers cannot hear it. Perhaps Vicentino's words are better understood as referring to the troubles of an organist playing *alternatim* verses than as evidence of organ accompaniment to polyphony.

⁸² The illustrious Girolamo Frescobaldi (1583–1643) served as organist of St. Peter's in 1608–28 and 1634–43 (Annibaldi 1998, 337).

The first clear Italian examples of *bassus ad organum* or basso continuo in sacred polyphony come from the 1580s, especially in the works of composers from Venice (Barbieri 1994, 587). Although the first Roman examples of adding continuo parts to the music are from the turn of the seventeenth century, it is likely that supporting the choir with the organ was an older practice. As Barbieri (1994, 590) points out, the reason that so few organ parts have survived is that the earliest continuo parts were likely to have been reductions of organ intabulations: the organist would use the lowest notes of the intabulation as a harmonic basis.⁸³ The ideal of supporting the harmony with the organ, sometimes even coupled with a trombone, playing the lowest notes at any time in the score (independent of the voice part these notes happened to be in) is visible in the music published around the year 1600: Barbieri (1994, 597) mentions works by Alessandro Striggio (1587), Philippe Rogier (1590–95) and Tomás Luis de Victoria (1600), which all have separate bass parts.

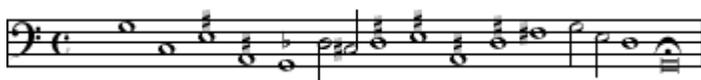
A Palestrina motet with a separate bass line, which according to a mid-eighteenth century document is in Palestrina's own hand and dates from the mid-1580s, has been discussed and analysed in Barbieri (1994) and Simi Bonini (2006). Even if Simi Bonini (2006, 774) shows that the organ part is not in Palestrina's hand, the instrumental bass part of the motet is stylistically similar to the works of Striggio, Rogier and Victoria, and could thus represent an early example of Palestrina polyphony with basso continuo.

The earliest descriptions of Roman *bassus ad organum* performances are possibly from the Jesuit Collegio Germanico, where a Victoria Benedictus and a Palestrina motet were sung with the organ in 1585 (Barbieri 1994, 597). This could well imply that the organ doubled one or several voice parts or filled in a missing voice, but that it could equally well be a description of polyphony with basso continuo. Music in print indicates that performances with organ basso continuo had become quite normal in Rome by the first decade of the seventeenth century. According to Lionnet (1987, 13, note 4), there are extant *basso continuo* parts from the early seventeenth century to works by Palestrina in the archives of the Cappella Giulia, San Luigi dei Francesci and Santa Maria in Trastevere.

When the organ accompanied the choir in polyphony, there seem to have been different practices. The method promoted by Agostino Agazzari in his treatise of

⁸³ That various theorists from the late sixteenth and early seventeenth century give instructions about how to make intabulations is also indirect evidence to organists accompanying vocal polyphony (see Smith 2011, 155–156).

1607 (Agazzari 2003) is, in essence, playing chordally from a figured bass line. Agazzari, who was the chapelmaster of the Siena Cathedral, but also worked in Rome at the Seminario Romano and the Collegio Germanico in the first decade of the seventeenth century, proposed that the organist should play from a bass line instead of playing the traditional intabulations to save the time and trouble of writing these out.



Agazzari 1607 (2003, 8), *Del Sonare Sopra'l Basso*, example of figured bass writing.

Agazzari's practical guidelines include varying the accompaniment according to the number of singers: if there are many voices, then the organist should play full and double the stops, whereas fewer singers imply reduction and playing consonances. According to Agazzari, doubling the bass is preferable to playing high notes. He also says it is best to play in close position (*assai stretto*) and in a low register. (Agazzari 2003, 9–10.) Although Agazzari seems primarily to be referring to the new *concertato* style, his guidelines seem quite suitable to accompanying polyphony from a figured bass line.⁸⁴

There are, however, examples from the turn of the seventeenth century, in which the organ part are closer to a reduction of the whole score. Barbieri (1994, 598) gives an excerpt from Victoria's eight-part motet *Ave maria gratia plena* in which the organ part, added by the composer himself to an edition of 1600, is essentially a reduction of all the voices of Choir I, perhaps to either substitute the choir or accompany a single singer. The organ parts of Barbieri's other examples (the Palestrina motet and a Rogier Kyrie; see Barbieri 1994, 591–597), which only feature the bass line, have the organ playing along with the initial polyphonic subjects before the entrance of the bass voice. Once the bass has entered, the organist moves to playing bass lines and chords.

During Palestrina's sojourn as the *maestro di cappella* of the Cappella Giulia, three organs were used at St. Peter's. Two of these were from the last decades of the fifteenth century. In the 1590s a new organ was built for the Cappella Gregoriana in the new basilica. The older instruments were situated in strategically central places:

⁸⁴ Agazzari's guidelines have one additional benefit. The organ's meantone temperament dominates intonation the more the organist plays dissonances. Concentrating on consonances gives the voices a more commanding role in the intonation. I am grateful to Kati Hämäläinen for pointing this out to me.

the Cappella del Coro and the central nave of the shortened old basilica. (Rostirolla 1977, 137–140.) Everything points to the instruments being considered an important part of the liturgical music of St. Peter's. Little is known about these organs, but Reynolds (1995, 69) has analysed extant organs by Giacomo Giovanni da Lucca, the builder of the organ known as the "di Alessandro VI" (the name given in Rostirolla 1977, 137). Reynolds suggests that the organ, built in the last decade of the fifteenth century, might have had five registers with pipes of tin and lead, pedals and a range of four octaves. The organ of the Cappella Gregoriana of the new basilica, in turn, was built by Luca Blasi, who is best known for the organ he constructed for San Giovanni in Laterano. The organ of the Lateran basilica was large by Italian standards: it had fifteen stops including two flutes and a *Zampogne-trombe*. (Bush & Kassel 2006, 69.)

This description coincides with Kurtzman's (2003, 358–362) description of Italian organs of the sixteenth and early seventeenth centuries. According to Kurtzman, most Italian organs of this period consisted of a single keyboard with 38 to 53 keys and were, as a rule, smaller than the instruments in northern Europe. The stops usually consisted primarily of a principal chorus and one or several flutes. The instruments did not necessarily have pedals, and when they did, their function was normally only to pull down keys in the lowest, often short, diatonic octave. The sound of the organs was often described as soft and sweet. The principal choirs consisted of at least the *principale* (8'), an *ottava* (4 foot), *decimaquinta* (2'), *decimanona* (1 1/3') and *vigesimaseconda* (1'). This *principale* sound was broad, and with the added choirs the sound grew more brilliant. (Kurtzman 2003, 359–360.)

The preferred registration for *basso per l'organo* is discussed in several early seventeenth century sources. In motets with up to five voices, the Principale was considered sufficient, whilst with six or more voices, the Ottava and even the Quintadecima could be added. The bass could be doubled where possible (Barbieri 1994, 601.) Even if the suggested registration for accompanying a choir of up to five voices is fairly light, it is useful to find that the organs used would have been the main organs of the cathedrals and churches. If these main organs were played with the kind of registration suggested by Girolamo Diruta in 1609 (see, for example, Kurtzman 2003, 363), such as the *principale*, *ottava* and *flauto in ottava* or *principale*, *ottava* and *quintadecima* for mode I, the sound of the organ would have

been considerably louder and more brilliant than the portable organs used in most modern performances of Renaissance or Baroque music.⁸⁵

As the churches built in the late sixteenth century grew in size and spaciousness, the size and sound of the organs grew with them. If the “di Alessandro VI” was quite loud enough for the intimate Cappella Coro of the Old Basilica, the organ of the Cappella Gregoriana of the new St. Peter’s had to fill a space that was 42 metres high! Where the old cathedrals of Rome were cluttered with tombs, statues and relics, the new churches were spacious and required more sonorous sounds to fill them.

The practice of singing polyphony with a solo voice or a few voices with the organ playing the missing voice parts seems to have come about from lack of resources. In 1602 Lodovico Grossi da Viadana (cited in Dixon 1994, 668) explains the invention of a new musical style through references to performances of motets scored for five to eight voices with only one, two or three singers with organ. O’Regan (1996, 150), in turn, cites Asprillio Pacelli, who in his foreword to a collection of psalms and motets from 1599 states explicitly that pieces for four voices can be performed with ease using fewer singers and organ and might even be preferable in this way. He describes his pieces more as *concerti* than as traditional church music (*musica ordinaria di cappella*). Tomás Luis de Victoria gives an explicit reference to the use of organ to substitute for voices in a letter from 1601 (cited in O’Regan 2009, 2): he states that the organ partbook for his collection of 1600 is “produced for organists in case there are not four voices present or just one who sings with the organ”. Dixon (1994, 150) argues that the practice of performing motets with a few solo voices and organ may go back to the 1550s and gradually became an independent style.

There are several late sixteenth-century performances in this style described in the sources. It appears that the Collegio Germanico was at the forefront of solo singing with organ (see Dixon 1994; O’Regan 1996).⁸⁶ But the new *concertato* style was not restricted to institutions with meagre musical forces: the *Ordini* (1600) of the Cappella Giulia state that if the organist of St. Peter’s calls upon a singer to perform with the organ (*cantar sù l’organo*), then the singer is obliged to do so

⁸⁵ Portable organs or *organetti* were also very much in use in Rome in the late sixteenth and early seventeenth centuries. Some of these instruments are described in Barbieri 1994.

⁸⁶ Gregory Martin (1969, 98) was very impressed by the music made at the German College (Collegio Germanico): “What Order, what majestie, what uniformitie, what lightes, what musicke...”

(Rostirolla 1977, 137).⁸⁷ All the evidence seems to imply that solo performances of polyphony with organ accompaniment became a credible alternative during the last few decades of the sixteenth century. This would explain why Agazzari did not need to refer to the novelty of this style of performance in the first decade of the seventeenth century.

Other instruments

While there is ample evidence for organs and organists in almost all the major Italian churches, the historical evidence for the use of other instruments before the mid-1500s is surprisingly meagre. Before 1550, documents of payments to instrumentalists in Italian churches are rare. D'Accone (1976, 616) lists trombonists in Bologna in 1560, in Padua in 1565, in Modena between 1562 and 1583 and in Mantua in 1588. Bonta (1990, 520) mentions a violinist who was hired regularly from 1566 in Verona and a trio of wind players in Venice in 1569.

Yet as early as 1555, Nicola Vicentino (1555, 85r; see Kurtzman 2003, 423) wrote that in spacious churches, one can compose music, for example, for masses and psalms mixing voices and instruments to make a large sound. Vicentino's idea is mirrored in music published in Italy in the last three decades of the sixteenth century. Orlande de Lassus's *Sacrae cantiones* (Books one to four), published in Venice in the 1560s, are the earliest Italian publications describing performance by voices and / or instruments. The same practice is reflected in dozens of collections of sacred music published between 1570 and 1600. (Bonta 1990, 528–535.) For the most part, the instruments remain unspecified, but when specified, the predominant instruments are the *violino*, *cornetto* and *trombone* (Bonta 1990, 524).

The practice of using instruments in doubling and in substituting for vocal parts thus seems to have become more general during the latter half of the sixteenth century. This reflects the usual views in modern scholarship on the use of instruments in liturgical practice in different parts of Europe. McKinnon (1978, 51) claims that both the existing literature on the subject and his iconographical analysis support the hypothesis that instruments became more common in sacred music

⁸⁷ The *Ordini da osservarsi da Cantori et Capellani della Cappella Giulia della Sacrosanta Basilica del Principe degli Apostoli di Roma* defined the obligations and rights of the singers of the Cappella Giulia in the same way as the Constitution of 1545 defined those of the Papal choir.

during the sixteenth century. In Spain, this happened by 1525, in Italy during the second half of the century, in England after 1575 and in France only at the turn of the seventeenth century.

There is reason to believe that McKinnon's description might be a little too cautious, as suggested by Korrick's (1990) analysis of the writings of influential theologians from northern Europe. Andreas Karlstadt, Erasmus Desiderius, Johannes Calvin and Martin Luther all criticise the use of instruments during mass as theologically dubious, obscuring the text and being costly. The instruments mentioned by these theologians, all of whom were writing before 1560, include organs, trumpets, horns, flutes and lutes. The references to instruments that obscure the text implies that the instruments played simultaneously with the singers, either doubling or substituting for the vocal lines in polyphony or possibly adding ornamentation to the singing. The lack of evidence of payments to instrumentalist is baffling, even if some of the instrumentalists were on the payroll of the city or princely court. This is the case, for example, in Venice, where the duties of the Doge's instrumentalists included assisting in services at St. Mark's (D'Accone 1976, 616).

Perhaps the most extreme example of instrumental and vocal forces in the late sixteenth century is the the Duke of Bavaria's chapel in Munich. The Duke's *maestro di cappella*, Orlande de Lassus, had at his disposal as many as 90 singers and players; even at its smallest, the chapel had 38 members. Wind instruments took part in the mass and vespers on festal days and Sundays. These wind instruments included flutes, cornamuses (a relative of the crumhorn), trumpets, trombones and cornetts. (Wearing 1982, 149–150.) While the Roman institutions normally did not have these kinds of resources at their disposal, instruments definitely played a part in the music-making of the eternal city as well.

Surprisingly, the earliest evidence of instruments other than the organ in Roman churches comes from St. Peter's, where a trombonist was employed on two occasions (in 1546 and 1547), and a cornett player in 1564 (D'Accone 1976, 616; Korrick 1990, 369, note 3). The evidence for substituting an instrument for a singer becomes more common towards the end of the century, especially in the 1590s. One of the papal singers who served the Collegio Germanico in the late 1580s on at least one occasion sent a trombonist in his place when other commitments made him unavailable; and a motet was sung at the same college in 1593 with organ and cornett (Dixon 1994, 670). At the end of the century, instruments were in no way unusual even in small ensembles. For example, in the 1590s the choir of one of Rome's numerous

confraternities, the Santissima Trinità dei Pellegrini, consisted of one or two boys, a few singing chaplains and an occasional cornett or trombone player (O'Regan 1995, 50).

The most important reason for the growing need for instrumentalists was polychoral music. From 1580 onwards, major ecclesiastical feasts were celebrated with ever-growing numbers of musicians performing works for two or more spatially separated choirs. The earliest reference to a Roman performance of a work for three choirs comes from 1582; the first four-choir work was possibly performed on an anniversary of the death of Filippo Neri in 1597. Although the earliest published works for three choirs date from the early 1580s, by the end of the 1580s three choirs of musicians was almost the norm for major feasts. (O'Regan 1994b, 289, 295, nt 40, 1995, 110–111.) The new, bigger and less cluttered churches made spatial performances possible and also perhaps necessitated more extreme musical gestures. To this end, instruments were the perfect means.

According to O'Regan (2009, 6), by the early 1580s polychoral works began to be performed with a physical separation between the choirs. Although in the music before 1580, one organ was sufficient for double-choir music, the practice in the last decades of the sixteenth century demanded several organs. Normally, the singers of Choir I were soloists positioned at the main organ with the *maestro di cappella* while the other choirs (*ripieni*) sang from platforms some distance away with their own conductor and a portative organ (O'Regan 2009, 6–7). Gradually, instruments took up a larger role in the performance of polychoral music. In addition to the organs, instruments mentioned in the late sixteenth-century documents include violins, trombones, cornetts, lutes and theorboes, with fewer references to bass string instruments, bassoons, violas, harpsichords and many other wind instruments. According to O'Regan (1995b, 126), the most common instrumental grouping was comprised of one violin, a cornett, a lute and a theorbo. In an unusually well-documented three-choir performance in 1616 at the S. Giacomo degli Spagnoli, each choir had a high instrument (Choir I: violin, Choir II: violin and Choir III: cornett) and a plucked instrument (I: lute, II: theorbo, III: *tiorbetta*), with the second choir also reinforced by a violone. The fifteen singers were divided into choirs in the following manner: I ATB, II: SSATBB, III: SATTBB). Choirs II and III were also supported by organs. (O'Regan 1995, 126–127, 140.)

In all likelihood the instruments simply doubled or substituted for the voices. In some cases the instruments might have formed one of the choirs. (Kurtzman 2003,

115, 115, nt 43; O'Regan 1995, 127.) As O'Regan (1995, 137) points out, Roman polychoral music was initially performed by solo singers, and this tradition remained the prevailing custom. However, in the performances on the largest scale, the numbers of performers were impressive: for the Easter music in 1591 at the Spanish Archconfraternity of the Resurrection, 62 singers were employed, including practically all the city's professionals (O'Regan 1995, 135, 141). They were joined by several instrumentalists including trumpeters, trombonists, lutes and organs (O'Regan 1994b, 286).

It was not only the wealthy confraternities who patronised polychoral music. There is documentation of polychoral performances with instruments in St. Peter's at the end of the sixteenth century. The enormity of the New Basilica forced even the normally self-sufficient Cappella Giulia to employ extra forces. For example, for the feast of Saints Peter and Paul in 1600, St. Peter's employed 26 extra singers, one cornett, three trombones, six trumpets, a bassoon and two extra organs. (O'Regan 1995, 144.) So central had become the support of instruments in sacred music by the end of the sixteenth century that there is evidence of Roman churches not only hiring players for major feasts, but also employing instrumentalists permanently, such as the trombonist, the cornettist and the violinist hired at San Luigi (Kurzman 2003, 116.)

This development culminates in the lists of instruments that Agostino Agazzari (2003, 5–6), writing in 1607, and Michael Praetorius (1619, 127, 141–142), writing in 1619, give as suitable for the performance of sacred music. In his treatise, Agazzari (2003, 16) praises the clarity of Palestrina's polyphony and mentions especially the *Missa Papae Marcelli* as an example of music that respects the text. It is thus completely reasonable to assume that Agazzari would have added his instruments to a Palestrina motet or mass. Agazzari divides the instruments into fundamental instruments (organ, gravicembalo, lute, theorbo and harp) and ornament instruments (lute, theorbo, harp, lirone, cetera, spinetto, chitarrina, violin and Pandora). Agazzari makes it clear that he prefers strings to wind instruments but accepts the use of winds in loud and large ensembles, adding that the trombone can be used as a double-bass with small four-foot organs. Praetorius's list is extensive, if not exhaustive. Besides the more usual continuo instruments, strings and winds, it includes bombards and shawms.

Summary and practical implications

Roman performance practice of sacred polyphony in the late sixteenth century was, as Gregory Martin so aptly put it, of the “most blessed varietie”, at least as far as the use of instruments is concerned. The ideal of singing without instruments lived on in the papal chapel and might well have been in use in the institutions that were capable of singing *a cappella*. Supporting the polyphony on the organ is in any case a historically feasible alternative to a purely *a cappella* performance. The organ would in this case accompany the singing, playing either chordally from a figured bass or playing the whole score or playing from a reduction of the score. Compared to the sound of the modern positive organs, the sound of the sixteenth-century Roman organs would have been quite substantial, even at their softest. Experimenting with performing sacred polyphony with varied registrations certainly has historical precedents and might provide new insights, especially in performing music for six or more parts.

In addition to the *a cappella* and the *bassus ad organum* practices, both fairly common even in our time, the alternative of performing sacred polyphony with one to a few solo voices and the organ is worth exploring. In this case the organist fills in the missing parts and the singers are free to ornament their lines. This practice might have come about through lack of sufficient forces to perform all the vocal lines, but over time, it seems to have become a practice enjoyed in and of itself. This practice also forms a tie to the well-documented florid style of virtuoso singing outside the churches in the late sixteenth century.

Finally, the use of instruments other than the organ in sacred music would by no means have been strange to Romans of the second half of the sixteenth century. Initially, after 1550, instruments, especially the cornett and trombone were used to strengthen or substitute for the voices in polyphony. In this function, there seems to have been a shift in taste to string instruments by 1600. As the century grew older, the array of instruments used in sacred music grew considerably. Polychoral music became the norm for major feasts and necessitated the use of instruments, especially wind instruments, to reinforce the sound. As Rome prospered, the churches and especially the confraternities were involved in an arms race of a musical kind, competing in the grandeur of their performances of sacred music. Roman polychoral music, including the double-choir works of Palestrina, on this scale could well be something of a novelty in our time and worth exploring.

Although there are no documents of instrumentalists other than organists working in the churches during Palestrina's sojourns as *maestro di cappella*, he did work with instrumentalists when he led the music of Cardinal Ippolito d'Este between 1567 and 1571. In addition to singers, the cardinal employed at least a cornettist, a viola player, a trombonist and an organist. (Pugliese 2006, 111.) Even if most of the music making at the Cardinal's residences was of a secular nature, it is unlikely that the musicians did not perform Palestrina's sacred music at all. And whether or not Palestrina himself was involved in performances of his own music with instruments, with some certainty he would have heard it performed with combined choral and instrumental forces by other performers.

V Conclusion: Something rich and strange

I set out to explore what can be learned from primary sources and scholarly literature about how Palestrina's sacred music was performed in the latter half of the sixteenth century. The quest was narrowed down largely to Roman performances during Palestrina's years in the city, 1551 to 1594, although the scope was never limited only to Roman sources or even to Italian ones. The reason for this was, on the one hand, to place the information specific to Rome in a larger context, and, on the other hand, where the Roman evidence is limited, to bring more evidence into the discussion.

The main questions I have attempted to answer in this study are:

1. What do we know about the performance of Palestrina's sacred works (or more broadly, sacred polyphony) in Rome in the latter half of the sixteenth century?
2. What practical implications might this historical evidence have for modern performances?

My approach to answering these questions was two-fold: after contextualising Palestrina's sacred music on both a larger scale and a smaller scale, I discussed the individual elements of performing Palestrina's music at length. The first, preliminary step to placing Palestrina's sacred music in context was a look at the religious, political and socio-economic situation of Rome in the latter half of the sixteenth century (Chapter Two). While strictly speaking this step could be seen as redundant from the point of view of performance practice, I argued that many of the religious, political and social factors that characterised late sixteenth-century Rome actually played a role in what was expected of the music and its performances. The second step brought us much closer to the essence of the study: an examination of the institutions for which Palestrina worked showed his music in a precise, predominantly liturgical context with specific ensembles and acoustical spaces (Chapter Three).

After this contextual introduction the second, central part of this study was an analysis of aspects of performance practice (Chapter Four). The aspects covered here are quite typical of performance practice studies of Renaissance polyphony, even if the emphases in these studies vary considerably. In addition to the usual suspects

(tempo, pitch, *musica ficta*, the ensembles, vocal technique, improvisatory embellishment and the use of instruments), this study emphasises some areas that are often mentioned only in passing, if touched upon at all: the importance of sixteenth-century notation, the significance of the *chiavette* transposition and the manner of singing chant in Palestrina's time.

I have also omitted some other aspects, some of which feature in related studies. The most salient of these is text underlay. It has been omitted for the simple reason that it is not a central question in performing Palestrina, given that both the printed and the copied extant choirbooks and partbooks are very clear in the placements of the text. Other elements of performance practice that could have been discussed but were ultimately eliminated include Latin pronunciation, improvised counterpoint, liturgical context and a deeper discussion of the implications of the acoustical spaces where Palestrina's music was sung. The grounds for leaving these elements out differ: I found that Italian Latin pronunciation has not changed significantly enough to warrant inclusion; improvised counterpoint, as enticing as it is as a subject, ultimately falls outside the scope of this study, which focusses on composed polyphony; although a more precise liturgical contextualisation of Palestrina's music is an important venture, it was too large a question for this study with its practical focus; and acoustics and performance is simply so broad a subject that it deserves a study of its own, preferably written in co-operation with an expert in acoustics.

I have ended the discussion of each performance practice element in Chapter Five with a summary of the evidence and the related arguments as well as thoughts on the practical implications of these findings. These reflections are intended as suggestions with which the performer may experiment, not definite findings, let alone normative guidance. In fact, if the reader reaches conclusions that differ from mine on the basis of the evidence presented, one of the aims of this study will have been fulfilled.

As a means of gauging my success in answering the research questions given above, a game of hats produces differing answers. In wearing the formal hat of a scholar, I experience the reservations that I express in Chapter Two in the discussion on the pitfalls of historical performance practice studies. In most cases the historical evidence is limited, and any conclusions on how a performance or an element of performance practice actually sounded demand assumptions that sooner or later stretch the evidence. This goes for both my own conclusions as well as for

conclusions drawn by the scholars I cite. Sometimes it is necessary to project a piece of information into a discussion that is distant both in time and place from the issue being addressed; sometimes it is necessary to fill in the blanks to form a coherent picture because no evidence exists; at times, these moments of conjecture can easily include an element of projecting onto the evidence something that is familiar from modern performances; and more than once I have found the source texts difficult to understand and translate. I have tried to make the reader aware of any leaps of faith, but I myself am well aware that scholarly writing will always include interpretations on a deeper, less visible level through the choice and organisation of the material used.

However, when I remove the hat of the scholar and replace it with the slanted beret of the artist, my reservations diminish considerably. During the writing of this study, I have tried to put many of its findings into practice. Through this artistic work I have empirical evidence of their worth. I even believe that implementing some of the findings presented here makes performances of Palestrina better, but that is a question of taste that goes with the artistic hat or perhaps holds true only in the head of the person wearing that specific hat. In any case, experimentation with aspects suggested by historical evidence gives the performer possibilities for new approaches. Some of these may prove completely uninteresting, but others may offer keys to understanding the music in a novel and exciting way. And ultimately, the historical evidence gives the performer a personal relationship with the music; at its best, it offers the performer the opportunity to challenge prevailing conceptions and dig deeper into the essence of the music.

In the discussion of the individual performance practice elements in Chapter Five, the central finding is the diversity of sixteenth-century practices, which shows that the pitfall of assumed unity (Chapter Two) needs to be taken seriously. In our desire to discover how performances sounded in the sixteenth century, we easily neglect the fundamental diversity of those performances. The other central finding is the practical nature of so much of the historical evidence: in many cases the evidence challenges prevailing modern practices and offers possibilities for artistic experimentation. I am well aware that each and every element considered in this study is worth a dissertation of its own, but the aim of this study has not been to exhaust all possible evidence on one element, but rather to present the prevailing views of a multitude of elements in order to form a larger picture. The discussion of

each element has a two-fold function: besides its inherent value as the description of an individual element of performance practice, it is also a part of a whole, an important piece of a jigsaw puzzle that could provide a glimpse of the different ways Palestrina's music was performed in late sixteenth-century Rome.

Most modern performers work from modern editions produced in score format. This format would have been an anomaly for sixteenth-century singers. In the discussion of using original notation or at least notation similar in essence, with music for only one voice part for each singer, I weigh the pros and cons of this approach. What is lost in the notation's poor suitability for rehearsing is gained in a re-focusing of the senses: without the visual aid of the score, hearing becomes more concentrated; the music gains a different rhythmic sense because of the centrality of the tactus as a point of orientation; and the individual lines become more independent and more pronounced. The original notation also carries a great deal of rhythmic information that is lost to the performer in most modern editions.

This information is essential in determining the tempo of a Renaissance work. At the root of the Renaissance experience of tempo was the tactus, a concept used to describe both the basic rhythmic unit around which the music is organised and the physical gesture used to express this unit. So many sources refer to the connection between the tactus and the beat of the human heart that even when taken with due caution, this association gives a basic idea of the speed of a normal tactus. Although most music, especially sacred polyphony, was composed in the metre C and the tactus fell on the semibreve, the speed of the tactus is best apparent from the appearance of the music. The length of the main note values can also lead the performer to choose the breve (sacred polyphony in archaic style) or the minim as the tactus (the *note nere* style, especially in madrigals). Modern editions naturally make the choice for the performer, but at the same time they deprive the performer of much of the information that would help to evaluate that choice. The tempo of binary works or sections is relatively straightforward, but the relationship between binary and ternary passages was problematic, even for sixteenth- and seventeenth-century musicians, and this confusion is also apparent in modern scholarship. It appears that in most cases the relationship between binary and ternary passages in Palestrina would have been 3:2, i.e. *sesquialtera*: three ternary notes in the time of two binary notes of the same value with the length of the tactus remaining the same. But the diversity of notating ternary passages as well as the confusion portrayed in the sources leads one to believe that the reality might have been more complicated.

The discussion on pitch showed that while there was no universal pitch standard and that the local standards varied greatly within sixteenth-century Italy, there is reason to assume that the pitch standard for Roman organs in Palestrina's time was generally about a semitone below modern A=440 Hz. This does not necessarily mean that polyphony was systematically performed at this pitch as, for example, there were no instruments in the papal chapel and the senior singers chose the pitches at will, whereas organists in the other chapels were skilled in transposition. But the evidence does lean towards polyphony being performed at pitches fairly similar to, if not a little lower than modern standards. The tessituras of the vocal parts of Palestrina's works certainly seem consistent with this pitch.

For the pitches of the individual voice parts to be feasible for an ensemble with adult male sopranos, whether falsettists or castrati, the transposition implied by so called high clefs or *chiavette* needs to be taken into account. This transposition has the backing of most scholars and the case for the transposition is quite compelling and already presented in detail in sources from the first decades of the seventeenth century. In Palestrina's case, it seems to make sense from all possible points of view, especially in placing Palestrina's compositions in one tessitura instead of two differing bodies of works with tessituras about a fourth apart. Despite this, the *chiavette* transposition is only gradually starting to be taken seriously amongst performers of Renaissance polyphony. This is probably due to two factors: tradition and the availability of male sopranos (in practice countertenors). As I argued in Chapter Two, performance practice tradition is by nature conservative and all change usually takes time, but I believe the seeds of change have been sown.

An excellent example of the diversity of sixteenth-century practices is *musica ficta*, the adding of unmarked (or unprinted) accidentals to the music. Although the rules governing *musica ficta* are fairly clear and the use of solmisation, a sight-reading method in use from the medieval times until at least the seventeenth century, clarifies the process from the point of view of the individual performer, *ficta* seems to have fallen to the performer to implement. As the intabulations of Renaissance motets show, there was seldom only one correct solution. They also show that modern editors tend to succumb to what could be called a radiation of *musica ficta* by following unavoidable or printed accidentals with *ficta* that unifies passages both horizontally and vertically much more religiously than it seems Renaissance performers did. Modern practices also often neglect the reality of

sixteenth-century performers who did not have scores to refer to and thus would have found it much easier to adjust horizontal *ficta* than vertical *ficta*.

One of the most unambiguous elements of historical performance practice study is evidence from specific ensembles. Even if, as in the case of the Papal choir, the official numbers do not always reflect the musical reality of the institution, Roman choirs are well documented. We know that with the exception of the two premier ensembles, the Papal choir of approximately twenty-five singers and the choir of St. Peter's of roughly fifteen singers, most Roman choirs consisted of eight to twelve singers. This was also the size of the ensemble Palestrina used in the few freelance assignments for which we have evidence. All the choirs consisted of professional adult male singers and, at many chapels, of choirboys in training. Soprano parts were sung by falsettists, castrati and boys, at times all three together. These characteristics define without doubt the kind of ensemble for which Palestrina composed his music. Judging from the ensembles, it was perfectly possible that the same four-part motet could be sung by over twenty voices or only four. Numbers are thus not the key, but the timbre of the all-male ensemble might be. In modern terms, the ensemble closest to Palestrina's choirs would be a group of roughly a dozen men with counter-tenors as sopranos, high tenors as altos, baritones or low tenors as tenors and basses in the bass.

A much more slippery slope is the style and technique of singing in Palestrina's time. Although much of the evidence leads one to assume that the general technical basis of singing was quite different from modern operatic singing, scholars' views on what the singing actually sounded like differ greatly. Without hearing the actual sounds, all attempts to define the sound of Palestrina's choirs seem doomed to fail. On a very general level, staying within one vocal register, a less homogenised approach to vowels and a less darkened timbre than in modern classical singing might lead us closer to the sound of Renaissance choirs in Palestrina's Rome.

The one prominent element of late sixteenth-century singing that is well documented is improvisatory embellishment. This is described and demonstrated in roughly ten Italian sources preserved from the late sixteenth and early seventeenth centuries. Despite this information, adorning the polished vocal lines of Palestrina with improvisatory embellishments is something of a grey area. There is unequivocal evidence for the centrality of improvised ornaments in solo singing of the late sixteenth century, as well as in singing polyphony with one singer per voice part. In the latter, the ornamentation was in all likelihood less extreme than in solo singing

and probably somewhat top heavy, with the highest voices taking the lion's share of the embellishments, but with all voices having the licence to decorate their lines. The evidence for choral embellishments is far less clear, but the heterophony born through simultaneously embellished and non-embellished lines might have been more often tolerated in the sixteenth century and less chaotic than some scholars seem to assume. At least in solo performance of Palestrina, as well as in performances with one singer per voice part, embellishments would have been allowed, if not expected. On embellishment in choral performance the evidence is ambiguous and at least leaves the door open for experimentation.

Most chant sung in combination with polyphony in modern performances follows the modern convention of singing chant based on its restoration in the nineteenth century centred around the Abbey of Solesmes. Yet there is ample evidence that the ideals expressed in the Solesmes editions do not represent those of sixteenth-century chant. Palestrina's ideals can be traced through several sources, and it seems apparent that his ideal of chant would have been considerably more measured and melodically simple than that of the Solesmes editions. Based on Palestrina's own strong words on the streamlining of traditional chant melodies in a letter to the Duke of Mantua, pairing Palestrina's polyphony with chant melodies of the *Graduale* of 1614, for example, would be historically much more precise. The historical evidence speaks for a more measured and even nature of performing chant than is the norm in our day.

In light of the evidence on the use of instruments in Roman polyphony, it is quite likely that *a cappella* performances of Palestrina's music were never the norm in the sixteenth century. The Papal choir sang without instruments, but the heavy reliance of all other chapels on an organist, as well as preserved organ scores testify at least indirectly that choral performances with organ accompaniment were nothing out of the ordinary. The use of the organ to substitute for missing voice parts was apparently seminal in creating a new style in which the organ carried all voices barring one, which was sung by a soloist. Instruments other than the organ evidently appeared on the scene gradually, and at least the polychoral style that became the culmination of great feasts both within the chapels as well as in the Confraternities called for the use of instruments. Again, diversity is the key word: the same Palestrina motet could have been performed by one singer with organ; a choir of ten singers with organ accompaniment; *a cappella* by the more than twenty papal choir singers; and by dozens of singers and instrumentalists broken up into sections for

several alternating choirs that were brought together at the most important textual parts.

It is exactly this diversity that I believe modern performances of Palestrina should strive for. On the basis of the historical evidence there is no one way of performing Palestrina's sacred polyphony, but rather numerous different possibilities. If this is true for Roman performances of the late sixteenth century, then surely the diversity on a pan-European scale would be greater still. Taking the historical evidence seriously does not lead us to *an* authentic or *an* historically informed performance, but rather to a multitude of possibilities to enrich modern performances. We will never know what Palestrina's own performances ultimately sounded like, but what evidence remains of them can make our performances more vivid and more inspired. From a fairly uniform performance tradition, through historical evidence, we might find our way to 'a blessed varietie' of Palestrina performance. Historical evidence can, at best, lead us to something rich, and, at times, even strange.

This study shows that there are many areas of interest for further study in the historical performance practices of Palestrina's sacred music. There are also some more general, but perhaps even more pressing needs to be addressed. On the most general level, I believe that if English translations of the central sixteenth-century treatises and manuals were readily available, interest in and knowledge of the historical evidence would grow quickly. Expecting musicians to be fluent in sixteenth-century Italian, let alone Latin, is no longer reasonable. Much interest is lost or at least neglected because it is not available in English.

I have argued above for the importance of using original notation in the study and performance of Palestrina. There is an element of hypocrisy involved in such an argument as long as the early printed editions of Palestrina are not readily available. The availability of these editions online, even in photographic representations of a middling quality, would make visible much information that is lost in modern editions and encourage performers to rely less on editors and more on their taste and knowledge.

A biography of Palestrina in the English language is long overdue. After the documentary biography by Bianchi (1995, in Italian) and the biographies by Heinemann (1994, in German) and Della Sciucca (2009, in Italian) with their heavy bias towards musical analysis and reception history, I suggest that a biography of

Palestrina in English should have a stronger emphasis on the man and on the complexity of his roles (singer, teacher, composer, *pater familias*, businessman, a servant of the Catholic Church, Roman), as well as an emphasis on hearing Palestrina's music instead of on traditional musical analysis.

On a less lofty scale, there remains much to be done on the Palestrina front. One straightforward and extremely interesting task would be to analyse the *musica ficta* and embellishments of lute and organ intabulations of Palestrina's motets in collections from the turn of the seventeenth century. While this would not reveal Palestrina's intentions, it would show the interpretations proposed by his contemporaries. Extant organ scores from late sixteenth-century and early seventeenth-century Rome would in turn help clarify how organists set about accompanying vocal polyphony.

On the whole, more analysis of the notation used in the works of Palestrina in the Vatican archives might provide further clues to performing Palestrina's sacred music. Features of special interest could be the notation of ternary passages, *musica ficta* and added chant passages.

As mentioned earlier, the liturgical musical context of Palestrina's sacred polyphony deserves more attention. Palestrina's liturgical works were, in his time, always heard in contrast with the other musical elements of the liturgy: chant, improvised counterpoint and, outside of the papal chapel, organ intonations and longer improvisations. The dynamic effect created by these three elements needs to be analysed more closely.

The relationship between acoustical spaces and music written for a particular space, as well as the effects of specific spaces on performance practices is a field that has not attracted much attention. Yet it seems clear that there is a definite connection between Rome's new buildings and the new Roman practices in the sixteenth century. Although detailed descriptions of specific performances are rare, comparisons of the forces of polychoral performances in different venues could add to our understanding of this spectacular genre.

Although the historical evidence seldom gives us simple answers as to how Palestrina's sacred music was performed in his lifetime in Rome, it does give us many clues concerning the individual elements of performance practice. If our aim is the reproduction of Palestrina's performances, we will in all likelihood be disappointed by the lack of evidence and the amount of conjecture needed to fill in

the gaps. But if our aim is to find new ways of approaching Palestrina's sacred music or gaining a deeper understanding of its original context, there is ample evidence with which to make our forays into Palestrina's time worthwhile.

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² IMSLP = International Music Score Library Project (http://imslp.org/wiki/Main_Page)

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