This pathbreaking book offers a new perspective on a central group of music theory treatises that have long formed the background to the study of Renaissance music. Taking theorists' music examples as a point of departure, it explores fundamental questions about how music was read, and by whom, situating the reading in specific cultural contexts. Numerous broader issues are addressed in the process: the relationship of theory and praxis; access to, and use of, printed musical sources; stated and unstated agendas of theorists; orality and literacy as it was represented via music print culture; the evaluation of anonymous repertories; and the analysis of repertories delineated by boundaries other than the usual ones of composer and genre. In particular this study illuminates the ways in which Renaissance theorists' choices have shaped later interpretation of earlier practice, and reflexively the ways in which modern theory has been mapped on to that practice.

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READING RENAISSANCE MUSIC THEORY

Hearing with the Eyes

CRISTLE COLLINS JUDD

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For Katie, Hannah, and Sarah

In memoriam Philippa and Jamie

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FOREWORD BY IAN BENT

Theory and analysis are in one sense reciprocals: if analysis opens up a musical structure or style to inspection, inventorying its components, identifying its connective forces, providing a description adequate to some live experience, then theory generalizes from such data, predicting what the analyst will find in other cases within a given structural or stylistic orbit, devising systems by which other works – as yet unwritten – might be generated. Conversely, if theory intuits how musical systems operate, then analysis furnishes feedback to such imaginative intuitions, rendering them more insightful. In this sense, they are like two hemispheres that fit together to form a globe (or cerebrum!), functioning deductively as investigation and abstraction, inductively as hypothesis and verification, and in practice forming a chain of alternating activities.

Professionally, on the other hand, "theory" now denotes a whole subdiscipline of the general field of musicology. Analysis often appears to be a subordinate category within the larger activity of theory. After all, there is theory that does not require analysis. Theorists may engage in building systems or formulating strategies for use by composers; and these almost by definition have no use for analysis. Others may conduct experimental research into the sound-materials of music or the cognitive processes of the human mind, to which analysis may be wholly inappropriate. And on the other hand, historians habitually use analysis as a tool for understanding the classes of compositions – repertoires, "outputs," "periods," works, versions, sketches, and so forth – that they study. Professionally, then, our ideal image of twin hemispheres is replaced by an intersection: an area that exists in common between two subdisciplines. Seen from this viewpoint, analysis reciprocates in two directions: with certain kinds of theoretical inquiry, and with certain kinds of historical enquiry. In the former case, analysis has tended to be used in rather orthodox modes, in the latter a more eclectic fashion; but that does not mean that analysis in the service of theory is necessarily more exact, more "scientific," than analysis in the service of history.

The above epistemological excursion is by no means irrelevant to the present series. Cambridge Studies in Music Theory and Analysis is intended to present the work of theorists and of analysts. It has been designed to include "pure" theory – that is, theoretical formulation with a minimum of analytical exemplification; "pure" analysis – that is, practical analysis with a minimum of theoretical underpin-

ning; and writings that fall at points along the spectrum between the two extremes. In these capacities, it aims to illuminate music, as work and as process.

However, theory and analysis are not the exclusive preserves of the present day. As subjects in their own right, they are diachronic. The former is coeval with the very study of music itself, and extends far beyond the confines of Western culture; the latter, defined broadly, has several centuries of past practice. Moreover, they have been dynamic, not static fields throughout their histories. Consequently, studying earlier music through the eyes of its own contemporary theory helps us to escape (when we need to, not that we should make a dogma out of it) from the preconceptions of our own age. Studying earlier analyses does this too, and in a particularly sharply focused way; at the same time it gives us the opportunity to re-evaluate past analytical methods for present purposes, such as is happening currently, for example, with the long-despised methods of hermeneutic analysis of the late nineteenth century. The series thus includes editions and translations of major works of past theory, and also studies in the history of theory.

The present volume is the first to address music theory before the Baroque period. Cristle Collins Judd takes as the focus of her study four principal music theorists in the period 1516 to 1588: Pietro Aron, Sebald Heyden, Heinrich Glarean, and Gioseffo Zarlino – two Italians, one German, one Swiss – men with certain theoretical-practical interests in common and at the same time fascinating differences of education, training, social position, environment, religious outlook, profession, personal aspirations, and even choice of language, which stamp their treatises with distinctive characters. Preceding the first of their treatises by a mere fifteen years was an event of enormous historical importance: the first publication of printed polyphonic music, by Petrucci in 1501. This event ushered in music's "print culture," and in so doing transformed the way in which theorists were to write about music.

Professor Judd reveals to us the far-reaching inplications of this process. Not only could music examples now be printed in treatises, but those examples came to form a symbiotic relationship with the steadily increasing printed repertory. It is possible for us now to see into the mind of the theorist and gauge his motives for selecting the material that he did – motives that are at times as ideological and strategic (often prompted by hidden agendas), as they are practical. Let me not spoil the narrative; for Professor Judd tells it almost like a detective story. It is a compelling tale of intellectual history, of private book collecting, of rhetoric, of image creation, and of manoeuvrings for position and power. It takes us at different times into the typographic details of printed partbooks and the intracacies of modal theory, into the writing of commonplace books, into the tensions between catholic and reformed religious practices, and into the world of human relations.

Reading Renaissance Music Theory offers a radically new manner of looking at the music theory of the past – a vital way that will be of interest to historians of the Renaissance, of Humanism, and of the Reformation, of cultural historians, scholars of orality and literacy, of those engaged in the history of printing, the book and

textual studies, as well as to historians of music and music theory. "Hearing with the Eyes," its subtitle, hints at the multifarious role of music examples, which interrupt the verbal discourse and at the same time enrich it, which must be interpreted by the eye and reconstructed by the inner ear, which stand as tokens for repertories while also shaping those same repertories, and which also raise broader issues about the nature of reading itself that go far beyond the specifically musical.

PREFACE

Like all good adventures, the writing of this book has taken me down paths that I hardly knew existed when I began. The journey commenced with a paper I was invited to give at a celebration in honor of Harold Powers' sixty-fifth birthday. That paper – which at the time, I viewed as an explication of Pietro Aron's modal theory – ultimately led me to considerations of orality, visuality, literacy, and textuality in relation to music theory. These are areas with a vast, fascinating, and often contentious literature, relatively little of which had been brought to bear on questions of printed music and notions of musical literacy. As I read about reading, I was drawn into the world of the history of the book and considerations of the materiality of the text. What emerged for me from those perspectives was the sense of a unique point of contact between music and writing about music in the examples and citations of music theory treatises.

Music examples have commonly occupied a minor role in histories of music theory and an even lesser place in broader humanistic studies; indeed, they normally merit mention only to the extent that they appear to clarify (or contradict) passages of text. Examples appear too obvious to merit scrutiny: they are out in the open; they are normally signed neatly with an "e.g." or precise captions; they may be carefully framed; they are set apart visually; they may even be indexed. On the face of it, the purpose of such examples is obvious: they ensure the authenticity of the discourse that surrounds them; they verify its truth content.

Reading out from music examples to the repertories they implicitly represent suggests entirely new perspectives on the connections among a group of treatises, theorists, and music sources whose interpretation has long formed the backbone of musical scholarship of the Renaissance. Appropriated musical texts act as crucial markers of the intellectual and social milieus inhabited by music theorists, their treatises, and the practice they (re)present. The intersection of music and printing evidenced through music examples offers an unexplored vantage point from which to address the emergence of a "musical print culture." This culture had dramatic ramifications not only for the writing of music theory, but also for the wider significance of the resulting discourse. Renaissance theorists' choices shaped the reception of sixteenth-century musical practice, while reflexively influencing the ways in which modern theory has been mapped onto that practice.

This study weaves together strands of religion, politics, and printing as they impinge on, and are exemplified by, music-theoretic discourse. In the process, numerous broader issues are considered: the nature of the relationship of theory and praxis; contemporaneous access to, and use of, practical sources; stated and unstated agendas of theorists; orality and literacy as represented via music print culture; the evaluation of anonymous repertories; and the analysis of repertories delineated by boundaries other than the usual ones of composer and genre.

Studies of early printed music have generally focused on the relationship between publication and performance, concluding that music prints stand apart from the considerations of other printed materials, while studies of music theory treatises have accorded relatively little attention to the examples contained within them, treating such examples as internal supplements and repositories of repertory. Another view is possible when the music examples of theory treatises – and, by extension, early printed musical texts themselves – are not assumed to be associated purely, or even primarily, with aural performance. This entails a consideration of the materiality of printed musical texts not only from the perspective of printing history but in a broader exploration of the kinds of multiple readings that historians of the book have proposed for other printed sources. That is, I want to highlight an understanding of printed music books and music theory treatises as part of a broader culture of the book. The ramifications of such an approach move this book beyond the narrow field of its specific focus: while locally this study bridges the fields of music history and music theory, it also draws more broadly on the fields of Renaissance and Reformation studies, studies of the craft of printing and history of the book, and cultural history.

Four case studies form the core of this book: each examines the interplay of individual theorists and treatises with both local and widely disseminated repertories. These are followed by a more wide-ranging essay that traces the reception of a single work, the motet *Magnus es tu Domine*, through a number of anthologies and theoretical sources, from 1504 until the present. Pietro Aron's *De institutione harmonica* (1516) and Gioseffo Zarlino's *Le istitutioni harmoniche* (1558, *R*1573) frame the theoretical texts chosen for consideration here. The "harmonic institution(s)" of their titles may be used not only to invoke the specific theoretical fundamentals of these texts, but also to highlight the intertextuality of a number of institutions as mediated by (and as mediators of) music-theoretic discourse. The chronological boundaries of the study reflect the advent of printed polyphonic music (Petrucci's *Odhecaton* (1501)) and the emergence of a music print culture in the sixteenth century. The theorists examined here are often cited for their innovations – for example, Aron's discussion of mode in polyphony (1525), Sebald Heyden's single-tactus theory (1537), Heinrich Glarean's exposition of a twelve-mode system (1547) and Zarlino's synthesis of *musica practica* and *musica theorica* in a single treatise (1558). These theorists and treatises also represent divergent geographical, theological, educational, social, and intellectual positions

while they are bounded by an apparently common relationship to chant tradition on the one hand, and the circumstances of printed musical transmission on the other.

During the writing of this book, I have received invaluable assistance from many individuals. First and foremost, I owe a debt to my colleagues in the Music Department at the University of Pennsylvania; they have provided an environment that has been wonderfully conducive to the writing of this book and assured that I had the time and means to complete it. Lawrence Bernstein, Jeffrey Kallberg, and Eugene Narmour all listened and generously responded to my queries with critical acumen as the arguments presented here were gradually developed. I owe special thanks to Gary Tomlinson and Christopher Hasty. Their prompt and careful readings of early drafts helped me avoid many pitfalls; their willingness to listen over and over again as I struggled to find the shape of this book was a constant source of encouragement and inspiration. I have been fortunate to have graduate students at Penn share in the formation of this material during the course of several seminars. Their questions and observations have greatly focused my arguments; work by Christopher Amos, Olivia Bloechl, and Carol Whang was especially helpful. Marjorie Hassen, librarian of the Otto Albrecht Music Library and God's gift to music faculty, has never failed to answer my requests, while Brad Young procured microfilms of music and treatises from far and wide. Beyond Penn, Jessie Ann Owens offered incisive and practical advice from the time I first began work on this topic and read versions of the manuscript in several stages. Bonnie Blackburn generously shared her extraordinary expertise on so many of the subjects touched on here and provided a most helpful reading of the entire manuscript, complemented by the assistance of the indefatigable Leofranc Holford-Strevens. Harold Powers's timely and thoughtful reading of the penultimate draft greatly improved the structure of the final version. Ian Bent guided me through the publication process, offering suggestions that improved both the argument and its presentation.

One of the great joys of working on a book that touched so many disciplinary areas has been the long and fruitful conversations with so many colleagues inside and outside musicology. Over and over I have benefited from the willingness of colleagues with greater specialized knowledge to listen to my ideas and share the fruits of their research. The participants in the "History of the Material Text" seminar at Penn provided a forum for presenting this work to a non-musicological audience and the queries and interest from many in that group shaped this work in subtle ways. Joseph Farrell of Classical Studies, Ann Matter of Religious Studies, and Ann Moyer of History have answered numerous questions, helped trace obscure sources, and aided with translations.

Each of the case studies of this book allowed me to engage the work of different communities within the world of musicology and music theory. Margaret Bent, Harold Powers, and David Fallows offered helpful comments on my original work

on Pietro Aron. Royston Gustavson, Susan Jackson, Bartlett Butler, and Volker Schreier answered questions about sixteenth-century Nuremberg. A perceptive comment by Kate van Orden led me to consider the nature of commonplace books and their role in relation to musical thought in connection with Glarean's manuscripts. Linda Austern pointed me to several references about commonplace books and Renaissance exemplarity. Jane Bernstein, Jonathan Glixon, Robert Kendrick, Mary Lewis, Giulio Ongaro, and Katelijne Schiltz were uncommonly generous in helping me gain some understanding of the complicated world of mid-century Venetian printing, ecclesiastical history, and cultural context. Benito Rivera freely shared his archival work on Zarlino and materials from his forthcoming book on Zarlino and Willaert's music. Frans Wiering shared his unparalleled knowledge of sixteenth-century modal cycles and his intimate acquaintance with Zarlino's treatises. On Josquin, Richard Sherr endured an endless series of e-mails about *Magnus es tu Domine* and related matters; Patrick Macey responded thoughtfully to an early version of this material; Herbert Kellman and Stacey Jacoy arranged to make materials from the Renaissance Archives at the University of Illinois available to me; Peter Urquhart assisted in the search for obscure recordings; and Marc Perlman helped me broaden my thinking beyond my own disciplinary blinders.

A Fellowship for University Teachers from the National Endowment for the Humanities, a Faculty Research Fellowship from the School of Arts and Sciences at the University of Pennsylvania, and a Summer Research Fellowship and travel funds from the Research Foundation of the University of Pennsylvania facilitated my research. Publication subventions from the Society for Music Theory and the Research Foundation at Penn defrayed the expenses of plates and examples.

An earlier version of part of Chapter 3 originally appeared as "Reading Aron reading Petrucci: The Music Examples of the *Trattato della natura et cognitione di tutti gli tuoni* (1525)," *Early Music History* 14 (1995), 121–52. A preliminary version of parts of Chapters 5 and 6 was published in "Musical Commonplace Books, Writing Theory, and 'Silent Listening': The Polyphonic Examples of the *Dodecachordon*," *The Musical Quarterly* 82 (1998), 482–516.

Numerous libraries supplied microfilms and answered queries, including the British Library, the Library of Congress, the Sibley Library at the Eastman School of Music, the Biblioteca Casanatense, the Stadtbibliothek Nürnberg, the Civico Museo Bibliografico Musicale Bologna, the Bayerische Staatsbibliothek, the Österreichische Nationalbibliothek Musiksammlung, the Gesellschaft der Musikfreunde, and the Musikwissenschaftliche Institut Vienna. I am especially grateful to Irene Friedl and Wolfgang Müller for their assistance when I was working with the Glarean Nachlaß at the Munich Universitätsbibliothek, and to Cornel Dora for his assistance in the Stiftsbibliothek St. Gallen.

My family has endured the writing of this book with near-saintly patience. Katie has grown into a young lady as this text has materialized, Hannah was born as it was

conceived, and Sarah arrived in the midst of it. To these, our three graces, I dedicate this book. As always, my husband, Robert Judd, made the completion of this project possible in ways so numerous that I hardly recognize them all myself – with quiet good humor, a healthy dose of skepticism, gentle generosity, and acts of unspoken kindness throughout.