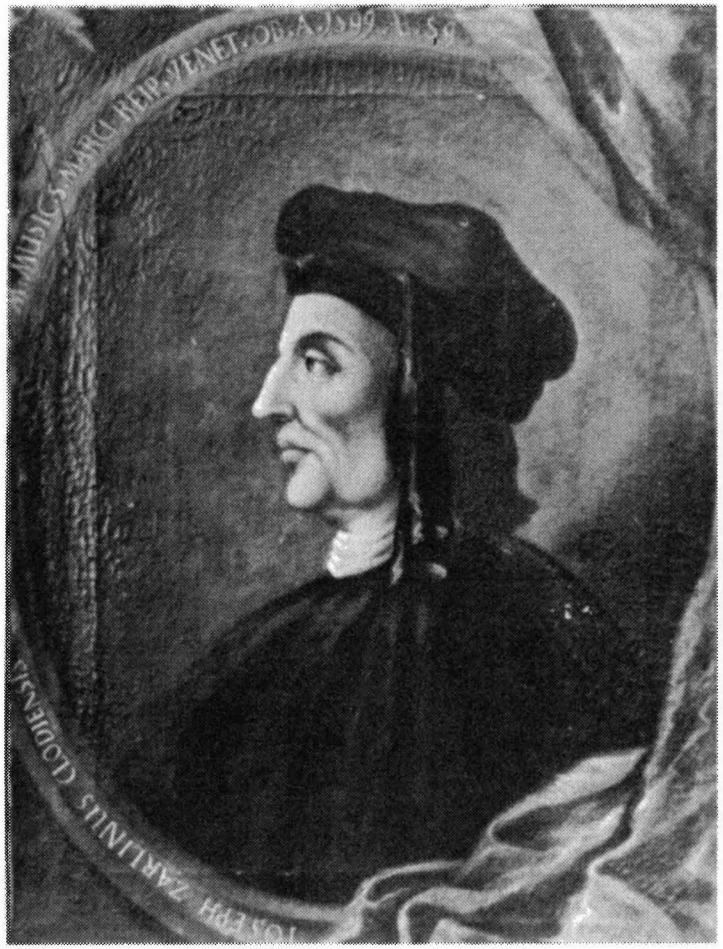

GIOSEFFO ZARLINO

The Art of Counterpoint

PART THREE OF
LE ISTITUTIONI HARMONICHE, 1558

GIOSEFFO ZARLINO

translated by

GUY A. MARCO *and* CLAUDE V. PALISCA

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Introduction

The study of counterpoint remains today as in Zarlino's time a cornerstone in the building of a musician and composer. Many of the counterpoint rules first clearly articulated by Gioseffo Zarlino are still in force in creative composition. Even now they are studied in thousands of classrooms and studios through versions passed down by intervening preceptors.[1]

Zarlino was not the inventor of these rules, but he was their most lucid and perspicacious exponent in the sixteenth century, the golden age of vocal counterpoint. Despite his fame, very few musicians or historians of music even in his native country can claim to have read Zarlino's great work, *Le Istitutioni harmoniche*. Among the most famous musical treatises of all time, it is one of the least directly known. Not a single translation in any language of a major part of it has been published before the present translation of Part III.

The monumental *Istitutioni* deserves to be read in its entirety. It documents the thought of a brilliant mind at a key moment of music history. A good case could be made for including the entire volume in the Music Theory Translation Series. Yet Part III has a clear priority over the rest. The *Art of Counterpoint*, with only rare excursions into speculation, presents a living method of composition. Based on the teaching of Adrian Willaert, it is rooted in the practice of the generation preceding Zarlino. The method was venerated by Zarlino's contemporaries and successors as the ultimate in contrapuntal art. In the form set down in this book it was propagated by Zarlino's disciples well into the seventeenth century. Giovanni Maria Artusi, with only slight modernizations, reduced its contents into tabular form in 1586.[2] Orazio Tigrini in 1588 followed with a compendium of the method that be-

1. See Guy A. Marco, "Zarlino's Rules of Counterpoint in the Light of Modern Pedagogy," *Music Review, 22* (1961), 1–12.
2. *L'Arte del contraponto ridotta in tavole* (Venice, Giacomo Vincenzi and Ricciardo Amadino, 1586).

came a favorite textbook.[3] Jan Pieterszon Sweelinck early in the next century made a German synopsis of parts of the *Istitutioni* and these survive in versions set down between 1640 and 1670 by several of his pupils, including Matthias Weckmann and Jan Adams Reinken.[4] A French translation by Jehan Le Fort, with examples transcribed for lute,[5] and an anonymous compendium in French[6] give evidence of its currency in the first quarter of the seventeenth century in France. All of these versions favor Part III, while severely compressing or altogether omitting the others. The book on counterpoint was Zarlino's enduring and influential contribution. It is fitting that it should occupy an early place in a series that aims primarily to publish treatises that can continue to be models for composers, practitioners, and analysts.

The scope and qualities of Parts I, II, and IV are of a different order. Part I, after the usual praises and classifications of music, presents the traditional curriculum of musical mathematics. It aims particularly to teach the student to handle proportions. However, the material is presented in a fresh and concise manner. Part II deals with the Greek tonal system, Greek music in general, and with the theory of consonances. Zarlino profited by the humanist revival of Greek texts on music, but he was no idolator of antiquity, and what he sifted from the mass of erudition available to him is remarkably pertinent to his age. Part II also contains Zarlino's own idealized construct of a universe of tone conceived under the influence of Renaissance Neoplatonism. Much of what is original in Part II was challenged almost immediately and with good reason. Part IV is principally on the modes and accepts the system of Glareanus published in 1547, discarding, however, the Greek names and elaborating

3. *Il compendio della musica nella quale brevemente si tratta dell'Arte del Contrapunto, diviso in quatro libri* (Venice, Ricciardo Amadino, 1588).
4. See H. Gehrmann, ed., "*De Composition-Regeln Herrn M. Johan Peterssen Sweling*" in Sweelinck, *Werken, 10* (The Hague, M. Nijhoff; Leipzig, Breitkopt and Härtel, 1901).
5. *Quatre livres ou parties des Institutions harmoniques* Paris, Bibliothèque nationale, MS fr. 19101. See Michel Brenet, "Deux traductions français inédites des Institutions Harmoniques de Zarlino," in *Année musicale 1* (1911), 125–44.
6. Paris, Bibliothèque nationale, MS fr. 1361.

upon the traditional doctrine in the context of sixteenth-century usage.[7] Zarlino's history of the modes from Greek times through the Middle Ages shows a better appreciation of the difference between the Greek and medieval systems than earlier authors'; yet there remain many distortions of history. Also Zarlino is insensitive to the disintegration and blurring of the modes going on around him. So Parts I, II, and IV, although of supreme interest for the musical, intellectual, and cultural historian, are more ephemeral in their scholarship and the forms of their thought than Part III.

The authority of the book on counterpoint rests securely on Zarlino's accomplishments as a musician and composer. He left a sizable repertory of sacred and secular music and for twenty-five years held one of the principal musical directorships in Europe as choirmaster of St. Mark's in Venice. Zarlino was born in Chioggia, one of the islands in the Venetian lagoon, shortly before April 22, 1517. He received his early religious and musical training among the Franciscan friars of his native town. He moved up in the religious order from the first tonsure in 1532 to the deaconship in 1539. Between 1536 and 1540 at various times he served as a singer and organist at the Cathedral of Chioggia. He transferred to Venice in 1541 and there became a pupil of the composer Adrian Willaert. Upon the resignation of his fellow-pupil Cipriano de Rore, Zarlino was appointed Musical Director of St. Mark's on July 5, 1565, and he remained in that post until his death on February 4, 1590. Two collections of motets contain the largest part of his surviving music. The first, *Quinque vocum Moduli*, published in 1549, contains nineteen motets; the second, *Modulationes sex vocum* of 1566, contains thirteen. Other motets and madrigals are found in numerous anthologies published between 1548 and 1570.[8]

7. Heinrich Loriti Glareanus, *Dodecachordon* (Basel, Heinrich Petrus, 1547). See Imogene Horsley, review of the Broude Brothers reprints of *Le Istitutioni harmoniche* and *Dimostrationi harmoniche, Notes, 23* (1967), pp. 515–19.
8. For a fuller biography and list of works, see the article "Zarlino" by Claude V. Palisca in *Die Musik in Geschichte und Gegenwart, 14* (1967). For a discussion of the works, see Roman Flury, *Gioseffo Zarlino als Komponist* (Winterthur, 1962).

Zarlino unites in his *Istitutioni* two theoretical traditions, *musica theorica* and *musica practica.* Musica theorica was the universal and ageless science of music, one of the mathematical disciplines in the curriculum of university studies called the *quadrivium.* Musica practica was the art of music as currently practiced and taught in the choir schools or passed from master musician to disciple. Franchino Gaffurio, at the end of the fifteenth century, wrote both a *theorica* and a *practica,* but he conceived them as separate and distinct treatises destined for different readerships. Zarlino deliberately combined the two in a single volume. He fervently believed that a composer should not be satisfied with mastering his craft but should know the reason for what he does. As painters found their technique on anatomy and perspective and architects draw their plans according to the maxims of geometry and proportion, musicians should base their practices on principles discovered by reason. At the same time he considered fruitless pure theory that never finds expression in practical music. "For this reason music considered in its ultimate perfection contains these two parts so closely joined that one cannot be separated from the other." [9] Zarlino aimed in Parts I and II of the *Istitutioni* to lay the foundation upon which he could build in Parts III and IV a sound edifice of practical precepts.

What made this unified theory possible was that music relies upon numbers and proportions. These are finite and certain, and it follows, he argues, that music is a most exact science, being part of mathematics. For example, consonances, which are natural phenomena, can be studied in terms of numbers and proportions. This is the speculative side of music. Consonances are also the stuff out of which vocal compositions are made. This aspect of them is the subject of the practical study of music. Each of these disciplines, the theoretical and practical, is divided in scholastic fashion into material and formal. The materials of the consonances are tones drawn from the monochord. The formal determinants of the consonances are the mathematical ratios used to divide this one-string measuring instrument. The practical art of music also has two aspects that together constitute the study of counterpoint. The material

9. Part I, Chap. 11.

aspect is the study of the consonances and other intervals and their combinations, and the formal aspect is the adaptation of these to words and rhythms.

The numerous links between the speculative and practical halves of the treatise would put the reader who has only Part III before him at a disadvantage were he not given some account of the premises and concepts on which it is built. To give such an account is the principal purpose of this introduction and also of many of the footnotes to the translation that refer back to definitions and explanations made earlier. Zarlino's text itself abounds with such cross-references, but few of them need to be hunted down to understand the matter at hand.

The end of music for Zarlino is to profit and please, "to delight honestly." [10] In his chapter "To What End Should Music Be Studied," [11] he rejects some of the reasons that had been proposed: because it soothes and delights the ear; because it is one of the liberal arts; because it disposes a person toward virtue and regulates the passions; because through it the intellect knows the nature of the musical consonances. Rather music is learned so that when the cares and needs of the body and soul are satisfied, man may in leisure pass his time and entertain himself virtuously, and, steered away from laziness, be led to better and more praiseworthy occupations. Music should be enjoyed prudently and in moderation, like wine, because it has the capacity to excite men to evil as well as good, to intoxicate, and to exclude other worthwhile occupations. This outlook helps us understand Zarlino's insistence upon pleasing sound allied with judicious workmanship and his abhorrence of excesses of any sort, as when extreme passions are expressed by chromaticism or awkward intervals and harmonies.

Zarlino accepted, rather uncritically for his time, the belief handed

10. Part I, Chap. 4. Here as in many other places Zarlino pays tribute to the influence of Horace's *Ars poetica.* The verses that express Zarlino's philosophy of art are quoted in Chap. 26 of Part III, lines 333–34, which literally translated say, "Poets desire either to improve or to please, or to unite the delightful with the profitable."

11. Part I, Chap. 3. In this chapter Zarlino seems to argue against Aristotle in Book VIII of the *Politics* while adopting certain of his ideas.

down by the medieval and early Renaissance authors that music is the harmonizing agent of the universe. "Speaking universally," he states, "music is nothing but harmony, and we may say that it is that opposition and agreement from which Empedocles proposed all things were generated; it is a concord of discords, meaning a concord of diverse things that can be joined together." [12] The universal music or *musica mondana* coordinates the spheres of the heavens, holds together the four elements

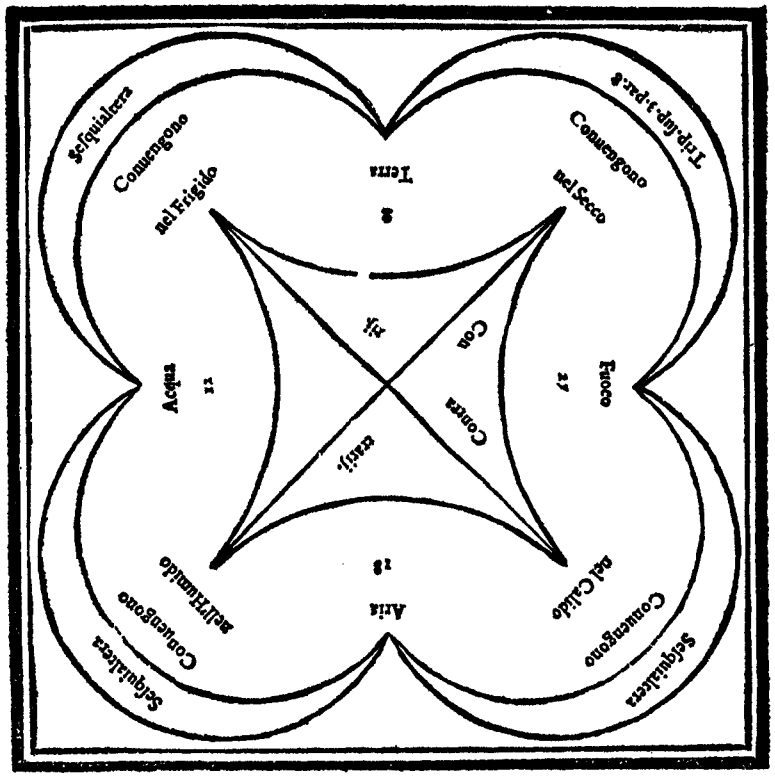

Fig. 1. From *Le Istitutioni harmoniche*, 1558, Part I, chap. 6, p. 14.

12. Part I, Chap. 5.

—fire, air, water, and earth—and organizes time and the seasons.[13] Human music or *musica humana* is the force that knits together the parts of the soul and parts of the body and maintains the harmony of the soul and the body.[14] He conceived of this harmony as operating through proportions. For example, the primary elements air and water are mixed in the ratio 3:2 in humidity, and the same ratio of water and earth produce frigidity. The system of contraries and concordances involving the elements is shown in Fig. 1. Against these forms of unheard music, which he groups together as animistic music (*musica animastica*), are the categories of audible music grouped under the heading of organic music (*musica organistica*). This falls into two classes: harmonic or natural (*harmonica o naturale*), meaning vocal music, and artificial (*artificiata*) or instrumental music.

The common source of animistic and organic music is number and proportion, and the all-important number is 6, the senary number, or *numero senario*.[15] The number 6 has the virtue of being the first perfect number, meaning that it is the sum of all the numbers of which it is a multiple ($1 + 2 + 3 = 1 \times 2 \times 3 = 6$). Many evidences are given of the power of this number. There are 6 planets in the sky. In the *Philebus*, Plato says hymns should not celebrate more than 6 generations.[16] There are 6 species of movement: generation, corruption, increase, diminution, alteration, and change of location. According to Plato, there are 6 differences of position: up, down, ahead, behind, right, left.[17] There are 6 types of logic, and the world was created in 6 days. And these do not exhaust the list. In music, the significance of the *senario* is that all the primary consonances can be expressed as superparticular ratios using only numbers from 1 to 6.

The division of a string into 2, 3, 4, 5, and 6 parts produces the consonances in their most in-tune forms or simplest ratios: 2:1, the octave; 3:2, the fifth; 4:3, the fourth; 5:4, the major third; 6:5, the minor third.

13. Part I, Chap. 6.
14. Part I, Chap. 7.
15. Part I, Chap. 14.
16. *Philebus*, 66.
17. *Timaeus*, 43B.

The remaining consonances are derivatives of these, the major sixth by the joining of a major third and a fourth, and the minor sixth by the joining of a minor third and a fourth.

The Pythagoreans had made similar claims for the number 4 and its related number 10 (= 4 + 3 + 2 + 1) and had shown that no consonance could be generated by any other numbers. But the practice that Zarlino set out to rationalize depended upon thirds and sixths for its full harmonies, and the Pythagorean thirds were in anything but simple ratios. Following the precedent of Giovanni Spataro and Lodovico Fogliano, Zarlino rejected the Pythagorean division of the monochord that had been traditional in all the medieval and early Renaissance theoretical manuals. He needed a tuning in which both the perfect and imperfect consonances would sound in their purest form. The syntonic diatonic tuning, one of the mathematically exact divisions of the string proposed by Ptolemy, seemed to Zarlino to fit the requirements perfectly.

Each tetrachord of the syntonic diatonic tuning is composed of a small whole tone, a large whole tone, and a semitone that is not the exact half of either. In the descending order normal to Greek theory, the string lengths and ratios of the middle (meson) tetrachord of the Greek system are:

432		480		540		576
a		G		F		E
	9/10		8/9		15/16	

Most fifths and thirds within the diatonic octave are pure in this tuning. Zarlino held that voices singing unaccompanied sought these forms of the consonances as a natural goal of discriminating ears.[18] Fretted and keyed instruments could only approximate the perfection of the syntonic diatonic. This shortcoming is characteristic of art, which strives to imitate

18. This idea was challenged a few years later by the scientist Giovanni Battista Benedetti in a letter to Cipriano de Rore (d. 1565) printed in his *Diversarum speculationum mathematicorum & physicorum liber* (Turin, 1585). See Claude V. Palisca, "Scientific Empiricism in Musical Thought" in Hedley H. Rhys, ed., *Seventeenth Century Science and the Arts* (Princeton, 1961), pp. 113 ff.

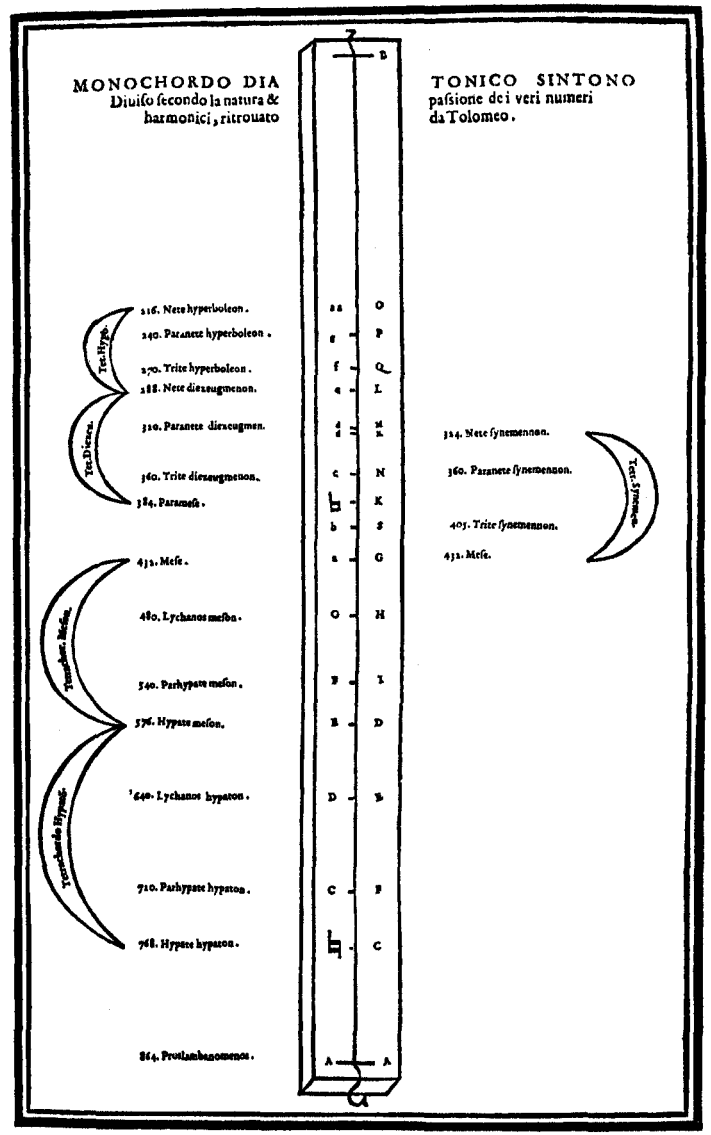

FIG. 2. The syntonic diatonic monochord. From *Le Istitutioni harmoniche*, 1558, p. 124.

the perfection of nature but never completely attains it. So instruments must be tempered according to various compromise systems, some of which Zarlino takes pains to describe.

The art of counterpoint bypasses the imperfections of instruments because it is an art of writing for voices. So the natural intonation of intervals possible in the syntonic tuning is assumed. It is this hypothesis of natural true vocal intonation that permits Zarlino to transfer the weight of his rationalistic theory of consonances to the *musica practica*. The consequences for the practice of counterpoint are crucial. Counterpoint consists primarily of consonances and only secondarily of dissonances. The dissonances, being excluded by their complex ratios from the *senario*, must be introduced only under conditions where they are barely noticed, blend with the consonances, or are made to sound almost consonant. Chromaticism is ruled out because extradiatonic tones cannot combine with diatonic tones to produce consonances in their just ratios.

Consonance is defined as "a mixture of high and low sound which strikes our ears smoothly and uniformly and has the power to stir the sense." [19] Consonance produces harmony, which is of two kinds: proper harmony, in which two or more melodies are combined; and improper harmony, in which there is consonance but no melody. Either of these types may occur as perfect harmony or imperfect. In the perfect harmony the consonances are mediated by inner parts, so that there are more than two tones sounding simultaneously; while in imperfect harmony, only two parts are sounding. When proper harmony is combined with rhythm (*numero*) and text (*oratione*), the product is what Plato called "melody" (*melodia*), and this has the capacity to move people to various passions. Plato had said that *melos* (song) consists of three elements: *logos* (the word, or that by which the inward thought is expressed), *harmonia* (agreement or relation of sounds), and *rhythmos* (time or rhythm).[20] Plato meant that a song consists of a text, an agreeable arrangement of melodic intervals, and measured time. Zarlino, in adopting Plato's formula, gave to the term *harmonia* a sixteenth-century meaning of simultaneously moving melodies, and for *melos* he understood composition. Translated into our terms, then, Zarlino's equation is: A polyphonic vocal composition (*melodia*) consists of three things: two or more parts moving together (*harmonia*), rhythm (*numero*), and text (*oratione*).

19. Part II, Chap. 12.
20. *Republic*, 398.

When a voice moves from one note to another through successive intervals to form melody, this motion Zarlino calls *modulatione*.[21] He distinguishes between the *modulatione* found in plain chant without any variety of duration or consonances, which he calls *modulatione impropriamente detta* ("improperly speaking"), and *modulatione propriamente detta* ("properly speaking"), in which there are consonances and slow and fast movements notated through the symbols of mensural music. It is with this kind of *modulatione*, the simultaneous movement of two or more parts, that Zarlino is concerned in Part III.

This concept of *modulatione* is vague, to be sure. Yet it clearly emphasizes the horizontal aspect of a polyphonic texture as opposed to *harmonia*, which emphasizes the vertical. Also *modulatione* is a process, whereas *harmonia propria* is the end result. Rather than translate *modulatione* as "modulation" as is sometimes done, we have sought the best English equivalent in any particular context—whether it be "part movement," "harmony," "melody," or other suitable expressions. *Harmonia* is close enough to the modern meaning of "harmony" so that the cognate is usually adequate.

Fortunately Zarlino rarely uses *melodia* for "composition." His usual word is *compositione* or *cantilena*. In either case he is speaking of a vocal composition, and we have variously used the English "composition," "vocal composition," or "piece."

Zarlino always succeeds in expressing what he wants to say. His prose is sometimes elegant, more often routine, and on occasion decidedly awkward. For his time his Italian style is neither the clearest nor the most obscure. It does not have sufficient merits as a style to be worth preserving in translation. His long sentences, the excessive use of conjunctions, and the archaic terms, if translated literally, would put the same obstacle in the way of an English reader that impedes the modern Italian reader

21. Part II, Chap. 14.

who sets out to read Zarlino. His prose has therefore been modernized here by splitting long paragraphs and sentences, omitting unnecessary conjunctions and particles, and rendering technical terms in language that will be readily understood by a student of musical theory. At no time have any of his statements been materially altered. Special situations are explained in the footnotes.

Le Istitutioni harmoniche went through several editions and reprints. The first edition, upon which this translation is based, was issued by Zarlino himself in Venice in 1558. It was reprinted without change in 1562 by Francesco Senese, "al Segno della Pace." Francesco de i Franceschi Senese brought out a new edition in 1573 with the altered title *Istitutioni harmoniche . . . di nuovo in molti luoghi migliorate, et di molti belli secreti nelle cose della prattica ampliate.* As the title indicates there are additions and improvements in the text. These are found particularly in Parts III and IV. The order of chapters in Part III is altered between chapters 44 and 55,[22] and occasionally the text is expanded and reworked, particularly in chapters 48, 56, and 63, the last two through several additional examples. In 1573 the modes are numbered starting with C rather than D to conform to the order Zarlino introduced in his *Dimostrationi harmoniche* (Venice, 1571). In addition to a table of contents there is a subject index. The 1573 edition was reprinted in 1589 with small changes as Volume I of *De tutte l'opere del R. M. Zarlino ch'ei scrisse in buona lingua italiana* (Venice, Francesco de' Franceschi Senese, 1588–89). Volumes I and II of this edition were reprinted as *Istitutioni et Dimostrationi di musica divise in quattro parti, et cinque ragionamenti* (Venice, Antonio et Giacomo de Franceschi, 1602). Some copies of this work have the date 1602 effaced and replaced with 1622.

The reasons for basing the present translation on the 1558 edition, despite the improvements of 1573, are several. Guy A. Marco's doctoral dissertation, "Zarlino on Counterpoint: An Indexed, Annotated Translation of the *Istitutioni harmoniche*, Book III, with a Glossary and Commentary" (University of Chicago, 1956), was based on that edition, and it served as the first draft for the present translation. When this was compared with the 1573 edition it was evident that taking the changes into account would considerably increase the volume and complexity of the footnotes without measurably enhancing the translation's usefulness. The recent reprinting of both the 1558 edition (New York, Broude Brothers, 1965), and the 1573 edition (Ridgewood, New Jersey, The Gregg Press, 1966) permits this comparison by anyone curious to know the variants. To facilitate reference to the original, the 1558 page numbers are given in brackets at the first convenient place ahead of the corresponding English text. The musical examples are not necessarily placed where they occurred in the original; consequently example numbers have been introduced into the text by the translators.

22. The following concordance shows the equivalent chapters in the two editions:

1558	44	45	46	47	48	49	50	51	52	53	54	55
1573	45	46	47	48	49	50	53	54	55	51	52	44

The most important reason for remaining faithful to the 1558 edition, however, is that it is an important document in the history of theory and thought. To know exactly what Zarlino said and how he said it at that moment rather than 15 or 31 years later is an invaluable testimony in itself.

The one departure from the 1558 edition is the incorporation of the fuller captions of the 1573 edition, which show what the musical examples are designed to illustrate. These are given in italics after the example number or after the 1558 caption. When these rubrics involve mode numbers, they have been altered to conform to the Glarean series. Material introduced by the translators is in brackets, except for emendations explained in footnotes. The numbering of examples and figures is our own, as are the barlines between staves, dotted barlines within the staves, and accidentals above the staff. The original note values have been preserved so that they would agree with the values named in the text. Ties over the bar have been avoided for the same reason.

The translators wish to acknowledge their debt to David Kraehenbuehl, who first conceived the Translation Series and as early as 1958 enlisted their participation in the project; to Richard L. Crocker, former Editor of the Series, who acted in that capacity as the final draft of this

translation began to take shape; to Gretchen Fahlund Wheelock, who typed most of the final draft, assisted in research for the footnotes, and prepared the final draft of the examples; and to Patricia Brown, who assisted in drafting the index. The editor thanks for their counsel his fellow members of the Music Theory Translation Series Committee: Allen Forte, Brooks Shepard, Jr., and William G. Waite. The Series is enormously grateful to the Martha Baird Rockefeller Fund for Music, whose generous grant makes possible not only the publication of this volume but the continuation of the Series.

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The Third Part of *The Harmonic Institutions* of M. Gioseffo Zarlino of Chioggia Concerning the Second Part of Music, Called Practical, that Is the Art of Counterpoint