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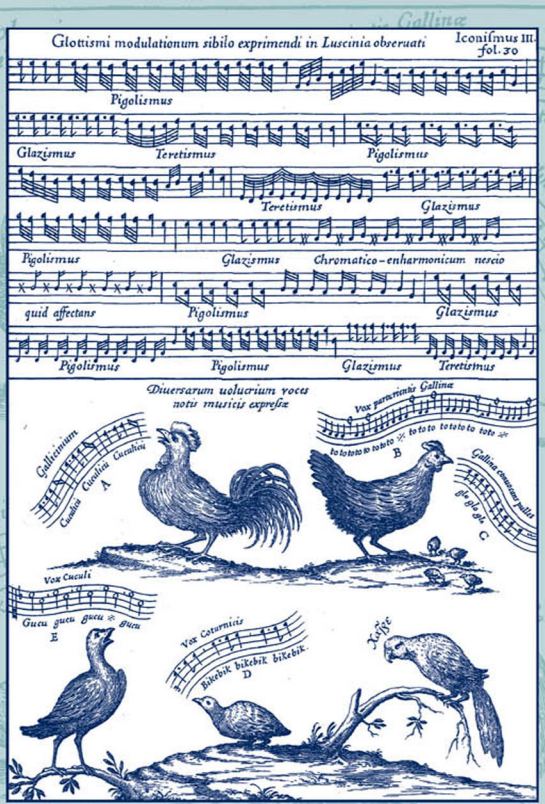
The Instrumental Music of Schmeltzer, Biber, Muffat and their Contemporaries

Charles E. Brewer



THE INSTRUMENTAL MUSIC OF SCHMELTZER, BIBER, MUFFAT AND THEIR CONTEMPORARIES

The Instrumental Music of Schmeltzer, Biber, Muffat and their Contemporaries

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Music examples from the archives in Kroměříž are reproduced by permission of the Olomouc Archbishopric. These are: 2.20–2.25, 2.29–2.30(a), 2.34–2.36, 2.38–2.46, 3.1–3.10, 3.12–3.20, 3.22–3.25, 3.27–3.32, 3.40–3.46, 4.1, 4.3, 4.5, 4.7, and 4.15.

Preface

This book stands at the end of a rather long and at times arduous journey into the instrumental music of late seventeenth-century Central and East Central Europe. The journey began when my high-school French horn teacher, James Undercofler, was graduating from the Eastman School of Music. We exchanged gifts, and I received a recording with a bright modern cover, titled "Vejvanovský: Works for Trumpets, Organ, & Orchestra," and performed by members of the Prague Wind Ensemble and The Prague Symphony Orchestra, conducted by Libor Pešek (Crossroads 22 16 0034). My first impression that this must be some sort of contemporary music (I was probably thinking of Penderecki and Ligeti) was quickly dispelled both by the folksong-like quality of Pavel Josef Vejvanovský's melodies and the jacket notes by Paul Myers. My fascination with this music led to my sneaking into the Sibley Music Library to see the volumes of Vejvanovský's works in the series Musica Antiqua Bohemica, and eventually to ordering the four volumes through our local music store, which had never ordered music from Czechoslovakia before.

Throughout my undergraduate and graduate degree programs, I kept developing opportunities to research more about the music from this time and region, developing my interest in the music of Vejvanovský's contemporaries, Schmeltzer, Biber, and Muffat, among others. I was also discovering that many scholarly works fell short of adequately addressing the riches of this fascinating repertoire. Finally, with the support of the International Research and Exchanges Board, I received a grant to do dissertation research in Hungary and Czechoslovakia (on late medieval music), but I was able to finally work in a trip to Brno, to meet with Dr. Jiří Sehnal, a scholar with an intimate knowledge of the archepiscopal music archives at Kroměříž, who helped me arrange my first visit to the beautiful palace and gardens built in the seventeenth century by Prince-Bishop Carl Liechtenstein-Castelcorn.[1] My research, which focused during this trip on the music for solo violin and the works of Alessandro de Poglietti, was greatly aided by Sehnal's handwritten catalogue of the collection (now published) and, most especially, by the kind assistance of Antonín Lukáš, the curator of the Archbishop's residence in Kroměříž. Though my time on this first trip was short, it provided the materials for my edition of previously unpublished violin music from the collections and a number of scholarly presentations. This

[1] Dr Sehnal's recent monograph, which updates and expands his earlier research, arrived too late to fully incorporate its contents into my own research: Jirí Sehnal, *Pavel Vejvanovský and the Kroměříž Music Collection: Perspectives on Seventeenth-Century Music in Moravia*, trans. Judith Fiehler (Olomouc : Palacký University in Olomouc, 2008).

same hospitality welcomed me during my succeeding visits to the archives, and I wish to deeply thank the Arcibiskupství Olomoucké for their permission to publish these results of my research.

My examination of this musical repertoire has been deeply influenced by the religious anthropologist Clifford Geertz, especially his concept of "thick description." His methodologies challenged me to begin examining the music of the late seventeenth century in a broader cultural context, trying to understand not only the details of the musical style of these compositions, but what cultural institutions supported the composers, and, in particular, what these works could have meant to the listeners and performers from that period and region. The astute advice of some scholars of the seventeenth century lead me to R.J.W. Evans, whose work on seventeenth-century cultural in Central and East Central Europe first lead me to a deeper understanding of the thought and significance of Athanasius Kircher, the subject of the first chapter. Kircher's concepts of musical style provided the intellectual framework for much of my later work on the music of Schmeltzer (Chapter 2), and Biber and Muffat (Chapter 4). It was also clear to me that the musical manuscripts preserved at Kroměříž deserved further investigation, both in terms of Kircher's concepts and as a microhistory of the musical style prevalent in the Habsburg lands at the end of the seventeenth century (Chapter 3). The final chapter is based upon my most recent research into the spread of the *stylus phantasticus* and the Central-European repertoire throughout Europe. Though each chapter deals with different issues and problems, I hope this set of studies as a whole will illuminate how the compositions of these composers, known and unknown, can be placed within a broader cultural and musical context that allows for a deeper understanding of the meaning of this music.

I have incurred many debts over the years I have worked with this material. I am thankful for the opportunities to present this material to national and regional meetings of the American Musicological Society, and especially to the members of the Heinrich Schütz Society, American Chapter, and its new incarnation as the Society for Seventeenth Century Music. The support I have received from the Fulbright-Hayes Commission, the International Research and Exchanges Board, the Ministry of Education of Czechoslovakia, and both The University of Alabama and The Florida State University have been vital to the completion of this work. I especially wish to thank the staffs of the following institutions who directly or indirectly aided my research: Paris, Bibliothèque nationale; Uppsala, University Library; London, British Library; Haselmere, Dolmetsch Archive; Durham, Cathedral Archives; and, most recently, Wolffenbüttel, Herzog August Bibliothek. I especially wish to thank Ashgate Publishing for its patience and diligence in bringing this volume to press. I am especially thankful to all the production staff and especially my editor, Heidi Bishop, and the proofreader, Sarah Price, both of whom made this a much better book.

While the majority of the translations throughout this work are my own (including my particular fondness for Jesuit Latin), I have received a number of suggestions over the years from my colleagues in the Society for Seventeenth

Century Music, and for the German texts from Prof. Jeffery Kite-Powell and Dr Monika Hennemann. While the final interpretations (and infelicities) are my own, all the suggestions were gratefully considered.

Beyond those people I have named above, I especially thank my wife, Melissa, who has patiently endured the progress of this work over the years, and who I believe has come to love this music as much as I do.

Charles E. Brewer
October 4, 2010

Notes to the Reader

Pitch Designations

The references in this book to pitches will follow the standard usage of the *New Grove*, where *c´* = middle C. When reference is made to individual pitches, these will always be given in italic type, for example, *c´*. Generic pitch classes will be indicated by capital letters in a normal font, as in trumpets pitched in C.

Key Designations

Though the nature of modality and tonality during the seventeenth century is especially fluid, for convenience, all references to key centers in the text will presume that the designations *major* and *minor* refer to the quality of the third above the *finalis*. In the tables, to save space, a capital letter indicates that the basic key contains a major third above the *finalis* (*e.g.*, G), and a lower-case letter to indicate the presence of a minor third (*e.g.*, a). Also in some of the tables, the *durus* or *mollis* signature is indicated so that even if a key of A minor is indicated, the presence of a flat in the signature will signify the Phrygian quality of the key.

Tables of Musical Form

The following conventions have been used in the tables that outline musical form.

Column I

The first column will give the measure numbers in the referenced edition of the work. A single line ("|") indicates a clear cadence and close; if a single parenthesis ")" is added after the line, it indicates a fermata in the source; a double line ("||") indicates the clear ending of a section or the entire composition. If no line is present in the chart, there is no clear cadence at this point in the composition, so that the two musical sections overlap.

Column II

The second column will provide the meter signatures of the work as they are present and change during the course of the composition.

Column III

The third column will give the tempo indication, if present, with editorial and suggested tempos in square brackets. At times the suggested tempos will be different from the referenced edition based on my own analysis of the individual work in the context of the composer's other instrumental compositions. If no tempo markings are present in the source, this column will not be included in the table.

Column IV

The fourth column will include a concise description of the texture of each section using primarily traditional analytical terminology. To this end, I make a clear distinction between strict fugal writing and a more loosely imitative style, which was much more common in most instrumental music of this period. Also, the term "full" is used when the entire group of instruments play together. Sometimes this texture is more strictly homophonic, but often the effect is polyphonic due to melodic motion in one or more parts. The concept of "motivic dialogue" refers to the exchange of motivic material among the various instruments. "Polychoral imitation" involves the exchange of motivic material between groups of instruments.

Column V

The fifth column will indicate the overall harmonic movement using the key conventions outlined above.

Column VI

A final column will occasionally include extra analytical comments or a simplified indication of the formal structures of the work, especially if similar musical material returns during the course of the composition.

Manuscript References

After many of the compositions cited in this study, I have inserted in square brackets full information concerning the location of the manuscripts. Unless otherwise specified the signatures refer to the music preserved at Kroměříž, and the signatures for these sources consist of two parts: a signature preceded by the capital letter A followed by a number, which refers to the most recent inventory of the extant manuscripts. Following a slash is a Roman numeral (mostly either IV for "Sonatæ" or XIV for "Balletti" *et alii*) followed by an Arabic number that refers back to the categories and listing in the 1695 inventory of Prince-Bishop Carl's music, which was also used in the earlier catalogue by Antonin Breitenbacher.

The most recent catalogue by Sehnal and Pešková, which is organized alphabetically by composer, uses yet a third catalogue number, arbitrarily assigned from beginning to end of their catalogue.

Dates used on the manuscripts are generally those when the work was copied. When the dating is an estimate based on the catalogue by Sehnal and Peskova, I have adapted their conventions: *c*.1670 would indicate *circa* 1670, *a*.1670 would indicate *ante* 1670, and *p*.1670 would indicate *post* 1670.

Source References in Footnotes

Within each chapter, sources will always be cited in full, with following references reduced to a short title reference. Generally, I have not included references to standard biographical information when this can be found in traditional reference sources, such as *Grove Online*, though on occasion I have cited selected specialized studies.

References to Modern Editions

References to modern editions will only be made to those that are not indicated in the two standard reference works used extensively in this study, the catalogue of the seventeenth-century manuscripts at Kroměříž by Sehnal and Pešková and Eric Thomas Chafe, *The Church Music of Heinrich Biber*, Studies in Musicology 95 (Ann Arbor: U.M.I. Press, 1987). In general, to save space, editions in multi-volume series will be cited with abbreviated titles (listed below).

It should be noted, however, that in the catalogue by Sehnal and Pešková there are numerous ghost references to works with trumpets that are listed as having been published by *Musica Rara* in the series "Music at the Court of Kroměříž." Apparently many of these titles never appeared, or were so rare that they can not be found in any North American library, even though they were listed on the covers of the few published volumes in this series.

Orthography

In general, I have attempted to use the orthography of the original documents I cite in this work. One possibly controversial decision has been to follow what I believe is the composer's intention to write "Schmeltzer" instead of the more common Latinized "Schmelzer." Similarly, I employ the old-Czech form of "Janowka" in the text rather than "Janovka." This has led to an inconsistency of using the more modern form in references to earlier publications while I use the older forms in the text.

Geographic Conventions

Except in the case of standard English equivalents, such as Vienna for Wien, the text will use only the currently recognized place names. Where other significant linguistic variants occur, these will be given in parentheses at the first occurrence, as, for example, Bratislava (Pressburg [G], Poszony [H]).

List of Abbreviations

attr.	attributed
cemb	*cembalo*
cl	*clarino* or *clarini*
cor	*cornetto* or *cornetti*
DdT	Denkmäler der deutscher Tonkunst
DMS	Denkmäler der Musik in Salzburg
DTÖ	Denkmäler der Tonkunst in Österreich
ed. eds	edited, editors
fag	*fagotto*
fl	*flauto* or *flauti*
gamba	*viola da gamba* or gambas
m. mm.	measure, measures
MAB	Musica Antiqua Bohemia
Nettl, "Die Wiener Tanzkompositionen"	Paul Nettl, "Die Wiener Tanzkompositionen in der zweiten Hälfte des siebzehnten Jahrhunderts, *Studien zur Musikwissenschaft* 8 (1921), 45–175.
New Grove	*The New Grove Dictionary of Music and Musicians*, second edition, or *Grove Music Online*
org	*organo*
RISM	*Répertoire International des Sources Musicales*
Sehnal and Pešková	Sehnal, Jiří, and Jitřenka Pešková, *Caroli de Liechtenstein-Castelcorno Episcopi Olomucensis Operum Artis Musicæ Collectio Cremsirii Reservata*, Catalogus Artis Musicæ in Bohemia et Moravia Cultæ, Artis Musicæ Antiquioris Catalogorum Series V/1 et V/2 (Pragæ: Bibliotheca Nationalis Rei Publicæ Bohemicæ/Editio Supraphon Praha, 1998)
timp	*timpani*
tr	*tromba* or *trombæ*
trb	*trombone or tromboni*
vla	*viola* or *violæ*
vln	*violino* or *violini*
vlne	*violone*
WEAM	Wiener Edition Alter Musik

Chapter 1

Stylus Phantasticus and *Stylus Hyporchematicus*: Concepts of Instrumental Music in Late Seventeenth-Century Central and East-Central Europe

In many histories of baroque music, the music of the later seventeenth century has been dominated primarily by studies of the very influential music of Italy, especially that of Arcangelo Corelli. Scholars and listeners developed over the past 100 years or so various approaches to this music, none more pervasive than the distinction between *sonata da chiesa* and *sonata da camera*.[1] The convenient and easily recognized presence or lack of dances, the use of typical "church" instruments such as the organ, and the "pious" or "entertainment" value of the music itself have all been factors used to categorize the creative work of many composers during this period. To some extent, modern scholarship has even decided the relative importance of various compositions on their adherence to or deviation from these standard idealized models. However, the validity of these distinctions recently has been questioned, even in the case of Corelli.[2]

The distinction between *sonata da chiesa* and *sonata da camera* has also been a consistent factor in the study of the instrumental music of the late seventeenth century from Central and East Central Europe.[3] Yet, there are other models of approach to the music of this place and time that more clearly reflect the intellectual, aesthetic, and cultural views of this region. An examination of these may help the modern historian and listener to better understand the compositional concepts that informed composers such as Johann Heinrich Schmeltzer, Heinrich Ignaz Franz Biber, Georg Muffat, and their contemporaries. The single most significant

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[1] Perhaps the most consistent use of these conceptions is in William Newman, *Sonata in the Baroque Era*, 4th edition (New York, NY: W.W. Norton, 1983). See also, Claude Palisca, *Music of the Baroque*, 3rd edition (Englewood Cliffs, NJ: Prentice Hall, 1991), pp. 147–63; and earlier Manfred Bukofzer, *Music of the Baroque* (New York, NY: W.W. Norton, 1947), pp. 136–40.

[2] See Peter Allsop, *Arcangelo Corelli: New Orpheus of our Times* (Oxford: Oxford University Press, 1999), esp. p. 69.

[3] See Newman, *Sonata in the Baroque Era*, pp. 201–54, and Eric Thomas Chafe, *The Church Music of Heinrich Biber*, Studies in Musicology 95 (Ann Arbor, MI: U.M.I. Research Press, 1987), pp. 183–5.

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window into the unique conceptual world of seventeenth-century Central and East Central European music are the writings of Athanasius Kircher.

Athanasius Kircher (1602–80)

In many respects, Athanasius Kircher and his voluminous published and unpublished works form a mirror that reflected the basic cultural values of late seventeenth-century Central and East Central Europe.[4] Born in Geisa, near Fulda, on May 2, 1602, his earliest studies were at the local Jesuit school, but he soon transferred to the school at Fulda. Kircher's studies continued at Paderborn in 1618, but with the beginning of the hostilities of the Thirty Years War (1618–48), he and many Jesuits in the region were forced to flee. After a long and dangerous journey, Kircher arrived at Cologne where he finished his degree in philosophy.

Kircher first taught at Coblenz, but soon was transferred to Heiligenstadt in Saxony, which again involved an eventful journey through Protestant territory. There he was appointed *grammaticus* (a teacher of grammar), but soon was teaching many other subjects, including mathematics and oriental languages. While in Heiligenstadt, Kircher prepared an elaborate display of optical illusions and fireworks for a visit of the Elector-Archbishop of Mainz, Johann Schweickhart, and he was soon called to the archbishop's residence at Ascheffenburg. At this time, in addition to his teaching duties, he began his study of theology at the Jesuit college in Mainz and in 1628 was ordained a Jesuit priest. After holding positions at Speier and Würzburg, the advance of the armies of the Swedish King, Gustav Adolph, forced him to flee to Avignon, where he continued teaching. In 1633, he was called by the superior general of the Order to go to Vienna as Imperial Mathematician, succeeding Johannes Kepler (1571–1631), but again the difficult journey eventually lead him to Rome rather than the capital of the Holy Roman Empire. At Rome, he was given the chair of mathematics at the Roman College (his predecessor, Christopher Scheiner, had been sent to Vienna in his stead). Though he made occasional short journeys away from the city, the remainder of his life was spent in research and writing.

In 1656, Kircher was responsible for arranging a musical and poetic entertainment for Queen Christina of Sweden on her arrival in Rome, for which he wrote a number of the texts in the many different languages with which he was

[4] The following biographical summary is based on P. Conor Reilly, S.J., *Athanasius Kircher, S.J.: Master of a Hundred Arts, 1602–1680*, Studia Kircheriana, Schriftenreihe der internationalen Athanasius Kircher Forschungsgesellschaft, Band I (Wiesbaden: Edizioni del Mondo, 1974), and the shorter summaries in Joscelyn Godwin, *Athanasius Kircher: A Renaissance Man and the Quest for Lost Knowledge* (London: Thames and Hudson, 1979), pp. 9–15; and Brian L. Merrill, *Athanasius Kircher (1602–1680), Jesuit Scholar: An Exhibition of His Works in the Harold B. Lee Library Collections at Brigham Young University* (Provo, UT: Friends of the Brigham Young University Library, 1989), pp. vii–xxx.

familiar. She was also the dedicatee of his fictional journey through the cosmos, the *Itinerarium exstaticum*, which was published in the same year.[5] During the 1660s and 1670s, his production of books began to wane (only ten books in the 1660s and five in the 1670s). Later in life, Kircher helped to restore a shrine to the Virgin Mary at Mentorella, and by 1678 he had "retired" there to minister to the pilgrims. He died on November 27, 1680 in Rome and was buried in the chapel of *Il Gesù* near the Roman College.

Throughout his career Kircher was also an avid collector of curiosities, and the Museo Kircheriano was a magnet to any scholar visiting Rome, in many ways similar to the collections of Henry Ashmole in Oxford. In 1678 his collection was placed in a new exhibit hall but it was not well cared for after Kircher's death. What remains is now divided between the Museo Nazionale and the Roman College.

Kircher's most enduring legacy is his thirty published works, though some of those from later in his life were done with the collaboration of his students. The range of subjects he addressed was equally impressive, from linguistic works on Coptic and hieroglyphics to advanced mathematics, studies of astronomy and optics, and surveys of geology and architecture.[6] His work on music, the *Musurgia universalis* was one of his largest publications, and even includes a few of his own compositions, but this is not the only evidence of Kircher's interest in music and musical ethnography.[7]

Tarantism

One of the earliest indications of Kircher's concern for music appeared in his work on magnetism, *Magnes sive De Arte Magnetica* from 1641.[8] Part of this work was based on his voyage to Sicily in 1636–38 as confessor to Friedrich, Landgraf of Hesse-Darmstadt, who Kircher had recently help convert to Catholicism. While

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[5] Athanasius Kircher, *Itinerarium Exstaticum* (Rome: Vitalis Mascardi, 1656). There was a second edition published with extensive commentaries by his student, Gaspar Schott (1608–66): Athanasius Kircher, *Iter Exstaticum* (Würzburg: The Heirs of Johann Andreas and Wolfgang Endter, 1660). See below concerning the concert that Kircher described as part of the inspiration for this work.

[6] A recent detailed overview of his works can be found (with the exception of his works on music) in Paula Findlen (ed.), *Athanasius Kircher: The Last Man Who Knew Everything* (New York and London: Routledge, 2004).

[7] Athanasius Kircher, *Musurgia Universalis sive Ars Magna Consoni et Dissoni* (2 vols, Romæ: Ex Typographia Hæredum Francisci Corbelletti, 1650; facsimile edition in one vol., ed. Ulf Scharlau, Hildesheim: Georg Olms Verlag, 1970). All references to this work will follow the convention of prefixing an "A" before the page numbers of the first volume and "B" before those in the second volume.

[8] Athanasius Kircher, *Magnes sive De Arte Magnetica Opus Tripartitum* (Romae: Ludovici Grignani, 1641); I have used the edition reproduced on microcard in *Landmarks of Science*, ed. Sir Harold Hartley and Duane H.D. Roller (New York: Readex Microprint, 1967–75), K (3rd cont.).

in Sicily, in addition to his observations on natural science, he also recorded the local legends concerning the musical antidote to a tarantula bite, the tarantella, and included various examples of the actual music used in this region. In the section entitled "De Potenti Musicæ Magnetismo" (The Powerful Magnetism of Music), he devotes Chapter 8 to his discussion "De Tarantismo, sive Tarantula Apulo Phalangio, eiusque magnetismo, ac mira cum Musica sympathia" (Concerning Tarantism or the Tarantula, a Venomous Spider from Apulia, and its Magnetism, and also its Marvelous Sympathy with Music).[9] He specifically describes the instruments and music of the *tarenti*, the traveling musicians who produced the musical cures, and provides a number of musical examples (see Illustration 1.1 and Examples 1.1 to 1.7).

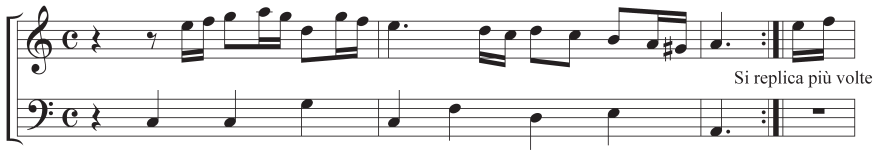
Illustration 1.1 Tarantella Performers[10]

[9] Kircher's first discussion of tarantism and his musical examples are in *Magnes sive De Arte Magnetica*, pp. 865–91; apparently some editions have different paginations. A full-page plate, including one of the musical examples, was printed *ibid*., with the indiction "fol. 874"; however the reproduction of this plate in Godwin, *Athanasius Kircher*, p. 77, has the indication for "fol. 763". For a summary study of the early writers on tarantism, including an overview of Kircher's discussion, see Henry E. Sigerist, "The Story of Tarantism," in *Musica and Medicine*, ed. Dorothy M. Schullian and Max Schoen (New York, NY: H. Schuman, 1948), pp. 96–116, a revised version of Chapter XI: "Disease and Music," in his *Civilization and Disease* (Ithaca: Cornell University Press, 1943). Pages 104–05 of the article contain a reprint of Kircher's pp. 761 and 763.

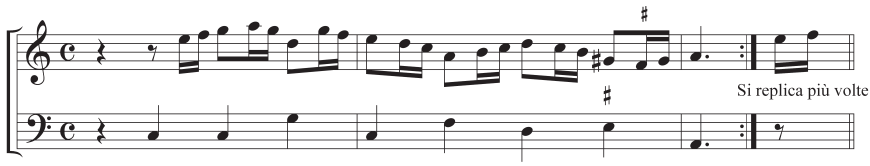
[10] Athanasius Kircher, *Phonurgia nova sive Conjugium Mechanico-physicum Artis & Naturæ paranympha phonosophia concinnatum* (Campidonæ: Rudolphus Freherr, 1673; reprinted as *Monuments of Music and Music Literature* in Facsimile XLIV, New York: Broude Brothers, 1966), p. 206.

Clausulæ Harmonicæ, quas Cytharædi et Aulædi, in cura eorum, qui à Tarantula intoxicati sunt, adhibere solent.
[The harmonic phrases that the lute and wind players are accustomed to use in the care of those who are poisoned by the tarantula.]

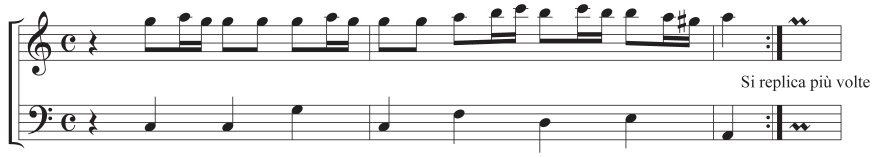
Example 1.1 *Primus modus Tarantella* (Tarantella, first version)



Example 1.2 *Secundus modus* (second version)



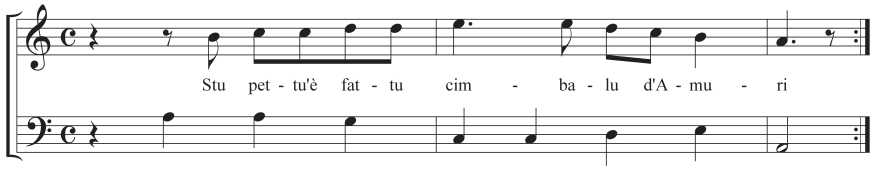
Example 1.3 *Tertius modus* (third version)



Præter hasce clausulas, alias adhibere solent inter queas maximè celebris est Rhythmus ille Siculus, dictus, Ottava Siciliana; quam & identidem repetere solent; cui infrascriptos, Sicula dialecto compositos versus accomodant, miramque dicitur habere wim concitandi Tarantatos, Clausulam harmonicam notulis suis expressam apponimus.
[Besides these [harmonic] phrases, they are accustomed to use others, among which that Sicilian rhythmic verse, called the "Ottava Siciliana," is greatly celebrated, and which they are accustomed to repeat identically. They accommodate verses written in the Sicilian dialect added below the [harmonic] phrase, and it is said to have a miraculous power of exciting those affected by the tarantula [*tarantos*]. We place here the harmonic phrase represented with its own notes.]

Example 1.4 *Tarantella*

Ottava Siciliana. Tono frigio (Phrygian Mode)



Stu pettu è fattu Cimbalu d'Amuri:	Hoc pectus factum Cymbalum Amoris:
Tasti li sensi mobili, & accorti:	Marculi sunt sensus mobiles sagacesquè:
Cordi li chianti, sospiri, e duluri:	Chordae sunt planctus suspiria, et dolores:
Rosa è lu Cori miu feritu à morti:	Rosa (sc: clavicymbali) est cor meum ad mortem vulneratum:
Strali è lu ferru, chiai sò li miei arduri:	Spicula est ferrum, claves sunt mei ardores:
Marteddu è lu pensieri, e la mia sorti:	Malleolus est cogitatio, et mea sors:
Mastra è la Donna mia, ch'à tutti l'huri	Choraga est mea Amata, quae omni hora
Cantando canta leta la mia morti.	Cantando cantat, læta meam martem.

[This breast is made a harpsichord of love. The little jacks are the movable and acute senses. The strings are laments, sighs, and sorrows. The Rose (evidently, of the harpsichord) is my heart wounded unto death. The (tuning) pins are iron, the keys are my passions. The little (tuning) hammer is thought, and my fate. The key-bed is my beloved, which every hour sings with joy by singing my death.]

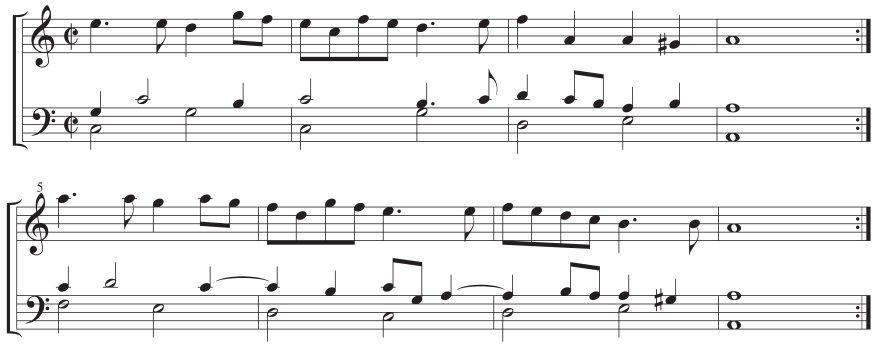
Super huiusmodi versus cantantur alii Rhythmi similes; et ut plurimum solent singulis alternis versibus, hos sequentes interijcere.
[On a verse of this type other similar rhythmical verses are sung; and that they are commonly accustomed to interject these following verses among the individual alternating verses.]

Allu Mari mi portati,	Ad Mare me portetis
Se voleti che mi sanati.	Si vultis ut me sentis.
Allu Mari, alla via:	Ad Mare festinetis:
Così m'ama la Donna mia.	Sic me amat Amata mea.
Allu mari, allu mari;	Ad Mare, ad Mare;
Mentre campo, t'aggio amari.	Dum vivam debeo te amare.

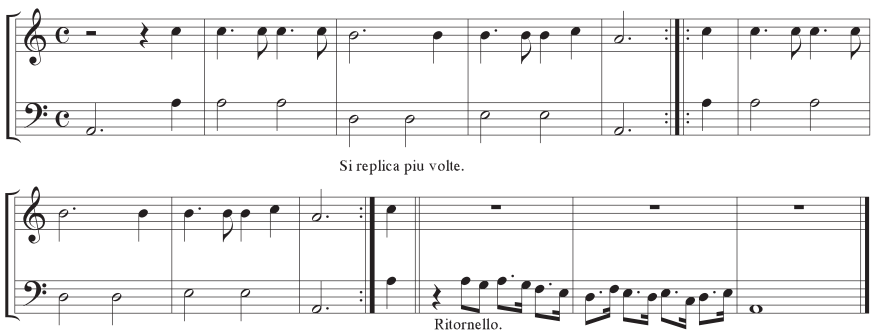
[To the sea you should carry me, if you wish to cure me. To the sea you should hurry, thus my beloved loves me. To the sea, to the sea, while I live, I shall love you.]

Tarenti verò certis quibusdam modulis utuntur, quam Tarentellam ideò vocant, quod Tarantismo affectis maximè arrideat, cui convenit ferè illa, quam in figura hic adiuncta æri incisam impressam vides.
[The *tarenti* in fact employ certain fixed melodies, which they therefore call a tarantella, because it might be disposed especially to affecting the tarantism, to which it is approximately adapted in that melody which you see in the figure here adjoined, a print engraved on copper.][11]

Example 1.5 *Antidotum Tarantulæ*



Example 1.6 *Tarantella*

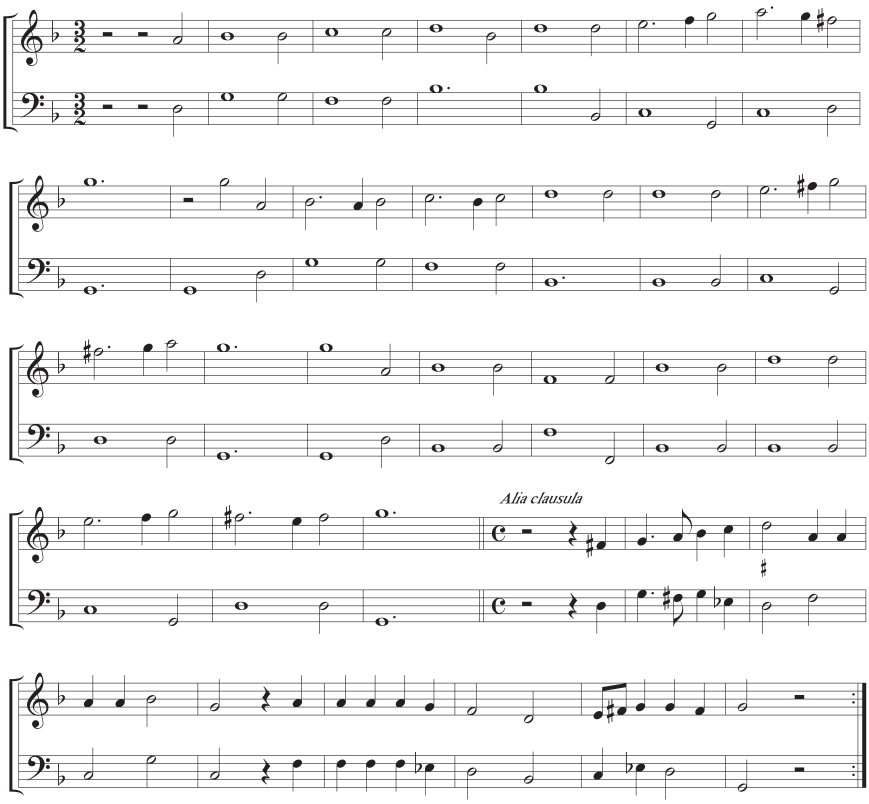


Aliam melodiam hic Neapoli mihi transmissam adiungo; quam veram Tarantellam dicunt, ego tamen re benè examinata, præcedentes modulos ob Semitonia frequenter intercurrentia, uti etiam diminutiones notularum, & tonum phrygium commodiorem iudico τῳίαξο-μαϒυητίσμῳ, adiungam tamem eam hoc loco, ne quicquam earum rerum, quæ in hoc libro desiderari possunt, obmittere videamur.

[11] This plate is reproduced in Godwin, *Athanasius Kircher*, p. 77.

[I attached here another melody transmitted to me from Naples, which they call the true tarantella. Nevertheless, having well examined the matter, I judge that the preceding melodies are guiding-magnetism on account of the frequent intervening semitones, and also the use of the diminution of the notes, and the more appropriate phyrgian mode. Still, I will annex this [Neapolitan] melody in this place, lest we would seem to neglect anything concerning these matters, which can be desired in this book.]

Example 1.7 *Tono hypodorio*



Atque hæ sunt clausulæ harmonicæ, quas ut plurimum incurandis Tarantismo affectis adhibere solere per homines gnaros, & istarum partium Musicos peritos comperi; in quibus quidem videre est, omnes huiusmodi clausulas toni phrygij esse, aut hypodorij, phrygio multum affinis; cur autem hoc phrygio tono tantopere afficiantur, ego ob hemitoniorum, dicto tono occurrentium frequentiam fieri putem, quæ sicuti maximam in affectibus concitandis vim obtinent, ita & in Tarantismo affectis ad saltus concitandis multum possunt. Sed de his in sequentibus fusius.

> [And these are the harmonic clausulas, which knowledgeable men are commonly wont to apply in healing those affected with Tarantism, and among this group are found skilled musicians. Among these [musicians], indeed, it is seen that all clausulas of this kind are of the Phrygian mode, or Hypodorian, to a great degree related to the Phrygian. Why would they however be attached with this Phrygian mode to such a degree? I would suppose that this happens on account of the frequency of semitones occurring in the aforementioned mode, since from this [frequency] they [the semitones] acquire the maximum power for arousing the affections, and in this manner they are greatly able to arouse the person affected with Tarantism to dance. But [search] concerning these things in following [chapters] more extensively.]

Kircher's studies of tarantism and its musical effects were of obvious importance to him. He summarized his views in both the *Musurgia universalis* (1650) and in his *Phonurgia Nova* (1673).[12] The significance of this phenomenon to Kircher seems to have been especially in his perceptions of the emotional power and medicinal effects of music that he found among the Sicilians, and this significance was to be more fully developed in the *Musurgia universalis*.[13]

A Reevaluation of Athanasius Kircher

A review of the various modern characterizations of the vast corpus of Kircheriana, indicates that many modern scholars have approached Kircher with a distorted vision, using a set of modern expectations that clouded the significance of his work within the context of the seventeenth century. In other words, it seems probable that the wrong questions were being asked of Kircher's writings, and modern scholars became increasingly dissatisfied with the answers they thought they found or the fact that Kircher did not even answer them.

The major problem appears to be that most modern discussions of Kircher disassociated him from the context of his own culture, a culture that was in some vital aspects vastly different from our own. In order to better delineate more appropriate questions, it is important to attempt to understand this cultural milieu so that Kircher may more readily "speak for himself."

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[12] Kircher, *Musurgia universalis*, B 218–24, and Kircher, *Phonurgia nova*, pp. 204–16.

[13] In this regard, the continuing interest in the tarantella as an instrumental work during the seventeenth century is seen in the eleven variations on the "Tarantella," "a dui, violino, e viola, o cimbalo," included in Salvatore Mazzella, *Balli, correnti, gighe, sarabande, gavotte, brande, e gagliarde* (Rome: Giovanni Angelo Mutii, 1689). See Claudio Sartori, *Bibliografia della musica strumentale italiana stampata in Italia fino al 1700* (2 vols, Firenze: L.S. Olschki, 1952–68), I, pp. 549–50.

The British historian of the Habsburg Empire, R.J.W. Evans, used Kircher as the focus of his study of the intellectual foundations of Central Europe in the seventeenth century.[14]

> Kircher certainly went in for self-advertisement, and posterity has tended to judge his huge output severely, dismissing it as unoriginal compilation, a grandiloquent pursuit of the trivial or the misguided, even as a fraud perpetrated from mixed motives of piety and ambition. The truth is far more complex, because Kircher was as greatly celebrated in his own time and among his own kind as he has been decried since. That renown demands to be explained, and reappraisal of his standing in the history of thought is long overdue. He needs to be placed, not in any genealogy of modernism, for there is little advantage in seeking out the occasional progressive nuggets in his writing (such as the experiments with lenses or magnets), but at the end of an intellectual tradition, in an age and an area that gave him his reputation and shared his failings. Kircher's subtlety and vainglory, insights and confusions mirror the whole credulous *élite* culture of Central European society.

Evans follows this with an extended discussion of Kircher's *magnum opus*, the *Œdipus Ægyptiacus*, published in Rome during 1652–54, containing 2,000 folio pages translating the true symbolic significance of Egyptian hieroglyphics. From a modern perspective, history reports that hieroglyphics were only first translated by Jean François Champollion in 1822–24 with the aid of the Rosetta Stone. And it is true that Kircher did not really translate the hieroglyphics, but throughout the *Œdipus Ægyptiacus*, in his reflections on the origins of language and of the occult knowledge that he posited among the Egyptians, he saw in these ancient pictographs not just emblems of external things, but examples that fit his notion of a symbol.[15]

> [The symbol] by its nature leads our mind through a kind of similitude to an understanding of something very different from the things which offer themselves to our external senses; whose property is to be hidden under a veil of obscurity.

Kircher's *Musurgia universalis*

Kircher's major work on music, the *Musurgia universalis* of 1650, needs to be placed into this broader cultural context. This work, published in two volumes, totaling 1,112 pages and numerous illustrations, was merely an incidental work between Kircher's *Ars magna lucis et umbræ*, published in Rome during 1646 and dedicated to Archduke

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[14] Robert John Weston Evans, *The Making of the Habsburg Monarchy 1500–1700: An Interpretation* (Oxford: Clarendon Press, 1979), pp. 434–5.

[15] Translated from *Œdipus Ægyptiacus*, ii, I, *classis* I, p. 6, in Evans, *The Making of the Habsburg Monarchy*, p. 437.

Ferdinand of Austria, and the *Œdipus Ægyptiacus* of 1652–54, published as three tomes in four volumes and dedicated to Emperor Ferdinand III.[16] But as Buelow has pointed out, the *Musurgia universalis* is probably the most influential work on music theory of the entire seventeenth century.[17] The demonstrably incomplete inventory of copies of the *Musurgia universalis* in *RISM* lists 266 complete copies remaining from the 1,500 published.[18] And it is evident that it was in the original Latin that this work was studied; in Germany, most later authors cite Kircher more completely than was available in Hirschen's later German abridgement.[19]

The *Musurgia universalis* was evidently used as gifts during a meeting of cardinals in Rome during 1650. In addition, the *Musurgia universalis* seems to have been a standard work in many monasteries and Jesuit colleges throughout Central and East Central Europe. Kircher's Habsburg connections were evident in the dedication to Archduke Leopold Wilhelm, the younger brother of Emperor Ferdinand III. Copies of this book were also sent to parts of Europe outside the Roman Catholic areas, and even accompanied the early Jesuit missions to China. Samuel Pepys purchased a copy in London on February 22, 1667: "Up, and by coach through Ducke lane; and there did buy Kircher's *Musurgia*, cost me 35s, a book I am mighty glad of, expecting to find great satisfaction in it."[20] Clearly, even when discussed only in the superficial terms of quantity and geographical distribution, Kircher needs to be more fully examined.[21]

Even the summary of the *Musurgia universalis* that Kircher published is in some respects an encyclopedic representation of its contents:[22]

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[16] A convenient bibliographic summary of many of Kircher's works is Merrill, *Athanasius Kircher*.

[17] See George Buelow, "Symposium on Seventeenth-Century Music Theory: Germany," *Journal of Music Theory* 16 (1972), pp. 36–49, especially p. 42. See also his article on "Kircher, Athanasius" in *New Grove* X, pp. 73–4.

[18] *RISM* B VI/1, pp. 448–9. For the total number of copies published see John Fletcher, "Athanasius Kircher and the Distribution of His Books," *The Library* 23 (1969), p. 112.

[19] Andreas Hirschen, *Philosophischer Extract und Auszug aus dess Welt-berühmten Teutschen Jesuitens* Athanasius Kircher *von Fulda* Musurgia Universali *in Sechs Bücher verfasset* ... (Schw. Hall: Hans Reinh. Laidigen, 1662); facsimile edition, ed. Wolfgang Goldhan, published as *Athanasius Kircher: Musurgia Universalis, Deutsche Ausgabe 1662*, Bibliotheca musica-therapeutica I (Kassel: Bärenreiter, 1988). *RISM* B VI/1, pp. 449–50, lists only 27 copies of the abridgement.

[20] Fletcher, "Athanasius Kircher and the Distribution of His Books," p. 113. Pepys is quoted in Merrill, *Athanasius Kircher*, p. 17.

[21] The examination of the *Musurgia universalis* is greatly aided by Ulf Scharlau, *Athanasius Kircher (1601–1680) als Musikschriftsteller: Ein Beitrag zur Musikanschauung des Barock*, Studien zur hessischen Musikgeschichte 2 (Marburg: Görich & Weiershäuser, 1969).

[22] Kircher, *Musurgia universalis*, reverse of title page (p. [VI] in the facsimile). The contents are also summarized in Sir John Hawkins, *A General History of the Science and Practice of Music* (2 vols, London: Novello, 1853; reprinted New York: Dover Publications,

Synopsis Musurgiæ Universalis in X. Libros digestæ.
Quorum septem primi Tomo 1. Reliqui tres Tomo 2. comprehenduntur.

Liber I. *Physiologus*, soni naturalis Genesin, naturam, & proprietatem effectusque demonstrat.

Liber II. *Philologicus*, soni artificialis, sive Musicæ primam institutionem, propagationemque inquirit.

Liber III. *Arithmeticus* motuum harmonicorum scientiam per numeros, & novam Musicam Algebraicam docet.

Liber IV. *Geometricus*, intervallorum consono-dissonorum originem per monochordi divisionem Geometricam, Algebraîcam Mechanicam, multiplici varietate ostendit.

Liber V. *Organicus*, Instrumentorum omnis generis Musicorum structuram novis experimentis aperit.

Liber VI. *Melotheticus*, componendarum omnis generis cantilenarum novam, & demonstrativam methodam producit: continetque quicquid circa hoc negotium curiosum, rarum, & arcanum desiderari potest.

Liber VII. *Diacriticus*, comparationem veteris Musicæ cum moderna instituit, abusus detegit, cantus Ecclesiastici dignitatem commendat, methodumque aperit, qua ad patheticæ Musicæ perfectionem tandem perveniri possit.

Liber VIII. *Mirificus*, novam artem Musarithmicam exhibet, qua quivis etiam Musicæ imperitus, ad perfectam componendi notitiam brevi tempore pertingere possit, continuetque Musicam Combinatoriam, Poeticam, Rhetoricam. Panglossiam[23] Musarithmicam omnibus linguis novo artificio adaptat.

Liber IX. *Magicus*, reconditiora totius Musicæ arcana producit; continetque Physiologiam consoni, & dissoni, Præterea Magiam Musico-medicam, Phonocampticam sive perfectam de Echo, qua mensuranda, qua constituenda doctrinam, Nevam Tuborum oticorum, sive auricularium fabricam; Item Statuarum, ac aliorum Instrumentorum Musicorum Autophonorum (seu per se sonanticum) uti & Sympathicorum structuram curiosis, ac novis experientijs docet. Quibus adnectitur Cryptologia Musica, qua occulti animi conceptus in distans per sonos manifestantur.

Liber X. *Analogicus*, decachordon naturæ exhibet, quo Deum in 3 Mundorum Elementaris, Cœlestis, Archetypi fabrica ad Musicas proportiones

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1963), II, pp. 635–42; in Scharlau's introduction to the facsimile reprint, and in his more extensive study, Scharlau 1969.

[23] On the reverse of the title page, this word is spelled "Planglossimam," but the explanation of this technique on B 126 makes it clear that the reading should be "Panglossimam."

respexisse per 10. gradus, veluti per 10. Naturæ Registra demonstratur.

[A Synopsis of the *Musurgia universalis*, condensed into ten books, of which the first seven are contained in Volume 1 and the remaining three in Volume 2.

Book I, Physiology, demonstrates the genesis of natural sounds, and the nature and peculiarity of their effects.

Book II, Philology, seeks after the first institutes and propagation of artificial sounds or music.

Book III, Arithmetic, teaches the knowledge of harmonic motions through numbers and the new musical algebra.

Book IV, Geometry, shows the origin of consonant and dissonant intervals through the geometric, algebraic, and mechanical division of the monochord with manifold variety.

Book V, Organology, reveals the structure of all types of musical instruments through new experiments.

Book VI, Composition, brings forth a new and demonstrated method of composing all types of melodies. And it contains whatever is able to be wished for in respect to this curious, rare, and arcane matter.

Book VII, Discernment, establishes a comparison of ancient with modern music, discloses abuse, commends the dignity of ecclesiastical song, and uncovers a method that finally would allow one to reach the perfection of affective music.

Book VIII, Wonders, demonstrates the new craft of "Musarithmica," by which certainly anyone at all unskilled in music would be able to attain to a perfect knowledge of composing in a brief time, and continues the poetic and rhetorical musical combinations. It adapts the universal "Musarithmetic" explanations to all languages with new artifice.

Book IX, Magic, produces the most hidden secrets of all music, and it contains a physiology of consonance and dissonance, furthermore a musical-medical magic, sound reflection or a perfect doctrine concerning what measures and constitutes an echo, the nerves of the little tubal bones or the fabric of the ears, also it teaches how to use the structure of statues and sympathetic vibrations and other automatic musical instruments (or sounding by themselves) with curious and new experiments.

Book X, Analogy, displays the decachordon of nature, by which it is demonstrated how to consider God in the three-fold elementary fabric related to the musical proportions of earthly things, of the heavenly, and of an archetype through ten steps, as it were, the ten registers of nature.]

The *Musurgia universalis* was designed as a progressive introduction to all aspects of music. The first volume begins with Book I and examines both the physical mechanisms of hearing in man and other animals, and how musical sound is produced, including an extended discussion of bird song. The second book is basically a history of music among the Hebrews and a preliminary examination of the music of the ancient Greeks. The basic doctrines concerning musical intervals examined in Book III and Book IV show how to produce these intervals on the monochord. As published, Books V and VI of this summary were exchanged from their positions in Kircher's summary. Book V actually deals with the rules of composition and Book VI examines the various types of musical instruments, including typical musical examples.[24] The seventh book begins with a comparison of ancient and modern music and proceeds to a discussion of musical style, and how to compose music that produces specific affects.

Kircher's second volume begins with the eighth book which includes an examination of his "Musarithmica," an elaborate investigation of the possible combinations of numbers in relation to musical intervals and rhythm. Book IX investigates how sympathetic vibrations work both acoustically, as regards sympathetic resonance, echos, and the Aeolian harp, and in relation to the power of musical resonance, citing the example of the fall of the walls of Jericho and the medical uses of musical therapy (in cases such as Tarantism). The tenth and final book deals with analogical music, which Kircher understood as the harmonic relations between the four elements and the planetary system, and is equivalent to the high regard Boethius had for *musica mundana*, since it helps mankind approach closer to God. In order to more fully understand the universal nature of Kircher's views on music, a fuller summary of his views on this cosmic music will help to put his thought into a more appropriate context.

A Harmony of the Cosmos

One area in which Kircher's views reflected this hermetic perspective is in his discussion of how a listener was actually moved to feel the different emotions presented in the music.[25] Foremost was a theory of correspondences that could lead to a "resonance" between the music and listener. Kircher expressed these visually in terms of a table that portrayed a set of ten *enneachords* (a nine-stringed instrument), each of which represented different nine-part categories, such as angelic orders, the planets and fixed stars, minerals, stones, plants, trees, aquatic

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[24] Book VI was translated by Frederick B. Crane, "Athanasius Kircher, *Musurgia universalis* (Rome, 1656): The Section on Musical Instruments" (M.A. thesis, State University of Iowa, 1956).

[25] For a general history of these speculative approaches to music theory, see Joscelyn Godwin, *Harmonies of Heaven and Earth: Mysticism in Music from Antiquity to the Avant-Garde*, 2nd edition (Rochester, VT: Inner Traditions International, 1995).

creatures, birds, quadrupeds, and colors.[26] This "resonance" actually effected the transference of emotion through the medium of the spirit [*spiritus*]:[27]

> Quibus constitutis infero tandem, Musicæ illam mirandam vim, quam in animi conmovendis affectibus obtinet, non ab anima immediatè profluese; quæ cùm immortalis fit & immateriata, nullam ad voces & sonos proportionem dicit, neque ab ijs immutari potest, sed à spiritu qui est anime instrumentum, aut ab animæ principali coniunctione, qua corpori annexa est. Spiritus enim huiusmodi cùm sumtilissimus quidam sanguineus vapor sit admodum mobilis ac tenuis, facile ab aere harmonicè concitato incitatur, quam concitationem anima sentiens, pro varia spiritus incitatione varios effectus quoque inducit, hinc cum spiritus velocioribus motibus harmonicis & spissioribus concitatur, & veluti crispatur, oritur ex illa crispatione rarefactio quædam, ex rarefactione verò spiritus oritur dilatatio, quam consequitur lætitia & gaudium, quę omnia tanto maiores affectus habebunt, quanto moduli fuerint concinniores aptiores & conplexioni constitutionique naturali hominis proportionatiores; hinc fit ut dum optimè constitutam harmoniam ac suavissimam percipimus melodiam, titillationem quandam in chorde animoque, hac apta concitatione veluti attracti absorptique sentire videamur, quam affectuum varietatem maximè promovent diversi modiseu toni musici, de quibus in prędcedentibus fusè actum est; diminutiones prędterea notularum, ascensus descensusque varia reciprocatio, varia dissonorum cum consonis artificiosè mistorum combinatio. Spiritum autem hac ratione, non alia moveri, hoc experimento manifestum facio.
>
> [I infer that the marvelous power that music has for moving the emotions does not proceed directly from the soul, for that, being immortal and immaterial, neither gives proportion to notes and sounds, nor can it be altered by them: it comes rather from the spirit [*spiritus*], which is the instrument of the soul, the chief point of conjunction by which it is annexed to the body.
>
> This spirit is a certain very subtle sanguine vapor, so mobile and tenuous that it can easily be aroused harmonically by the air. Now when the soul feels this movement, the various impulses of the spirit induce in it corresponding effects: by the faster or stronger harmonic motions of the spirit it is excited or even shaken up. From this agitation comes a certain rarefaction causing the spirit to expand, and joy and gladness follow. The emotions felt will be the stronger as the music is more in accord and proportion with the natural complexion and constitution of man. Hence when we hear a perfectly crafted harmony of a very beautiful melody we will feel a kind of tickling in our heartstrings, as if we are

[26] Kircher, *Musurgia universalis*, B 390–94. This passage is translated in Joscelyn Godwin, *Music, Mysticism and Magic: A Sourcebook* (New York: Arkana, 1987), 154–60, with the table translated on pp. 158–9.

[27] Kircher, *Musurgia universalis*, B 204; translated in Joscelyn Godwin, *The Harmony of the Spheres: A Sourcebook of the Pythagorean Tradition in Music* (Rochester, VT: Inner Traditions International, 1993), p. 266.