

Inhoudsopgave

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Inleiding bij Vincenzo Galilei's Romanesca undecima con cento parti

Door Joost Witte

Vincenzo Galilei

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- Intavolature de lauto arrangementen van vocale muziek voor de luit en zes instrumentale ricercares
 Il primo libro de Madrigals a quatro et cinque voci polyfone vocale muziek
 Fronimo een dialoog over het arrangeren van vocale muziek voor de luit
 Dialogo della musica antica et della moderna een uitgebreide muziekgeschiedenis
 Contrapunti a due voci oefenstukken voor de beginnende muzikant
 Fronimo een herziene en aangevulde versie
 Il secondo libro de Madrigals a quatro, et a cinque voci polyfone vocale muziek
 Discorso intorno all'opere di messer Gioseffo Zarlino een schotschrift waarin Vincenzo het opneemt tegen zijn leermeester
 - Belangrijke manuscripten die niet in druk verschenen:
- 1570 Compendio della musica theoretica een aanzet tot opsomming van wat hij had geleerd van Zarlino en Vitruvius
- 1584 Libro d'Intavolature di liuto 272 pagina's in luitmuziekschrift met onder meer de elfde romanesca bestaande uit honderd delen
- 1588 1591 artikelen over contrapunt, consonanten & dissonanten
- 1591 Critica Zarlino een laatste weerwoord

Leven en werk

Vincenzo Galilei (3 April 1520 –2 Juli 1591) was de vader van de astronoom en natuurkundige Galileo Galilei en de luitvirtuoos en componist Michelangelo Galilei.

Vincenzo was luitist, componist en muziektheoreticus.

De Florentijnse mecenas Giovanni de Bardi zond hem naar Venetië om bij de theoreticus Gioseffo Zarlino muziek te studeren in de periode 1563 - 1565.

Enkele van zijn boeken waren een groot succes: van de Fronimo uitgaven en de Dialogo della Musica zijn veel exemplaren overgeleverd. De norm die Vincenzo in Fronimo meegaf aan arrangerende luitspelers is dat alle stemmen is zijn geheel overgenomen moeten worden: ook de tussenstemmen die bij de overzetting van vocale partijen naar de nek van de luit voor heel wat halsbrekende toeren leiden.

Herziening na voortschrijdend inzicht was voor hem een gebruikelijke gang van zaken. Vincenzo stond nooit stil en een van de gevolgen daarvan is dat er tegenstrijdige uitspraken van hem te vinden zijn over heel wat onderwerpen. Er zijn twee instrumentale luitboeken: uit 1563 en 1584, twee madrigalenboeken: uit 1574 en 1587, twee Fronimo versies: uit 1568 en 1584, twee Zarlino verweerschriften: uit 1589 en 1591.

Zijn madrigalenboeken getuigen van zijn begrip van de polyfone stijl. Vincenzo heeft de naam één van de eerste voorvechters te zijn van monodie, een muziekstijl die haaks staat op het toen gebruikelijke meerstemmige weefsel van de madrigalen. Net als Claudio Monteverdi drukte hij zich uit in verschillende stijlen. Monodie staat voor muziek waarin een solostem de melodie voor zijn rekening neemt, met eenvoudige akkoordbegeleiding en aanvankelijk spaarzame ornamentatie.

Muziektheorie maakt gebruik van begrippen die achteraf bedacht worden om ontwikkelingen te kunnen benoemen. Voor het goed beschrijven van Vincenzo Galilei's artistieke erfenis is het opvallend vaak nodig gebruik te maken van muziektermen die voor de tijd waarin hij leefde te modern lijken. Zijn verhandelingen over consonanten en dissonanten lopen vooruit op de latere harmonieleer. Dit illustreert zijn vooruitstrevende geest.

In 1570 begon Vincenzo met het opschrijven van de kennis van theorie en geschiedenis die hij had opgedaan. Bij het formuleren merkte hij dat hij dikwijls een andere mening was toegedaan dan schrijvers voor hem en zijn leermeester Zarlino in het bijzonder. Dit nodigde uit tot verder onderzoek. Vincenzo ontpopte zich tot een gedreven en nauwgezet onderzoeker.

Via Giovanni Bardi kwam hij in contact met de geleerde Girolamo Mei. Vincenzo Galilei en Girolamo Mei wisselde meer dan dertig lange brieven uit over allerlei aspecten van muziek, zowel historisch als theoretisch. De inhoud van deze brieven werd besproken in een groep

kenners en liefhebbers die Giovanni de Bardi on zich heen had verzameld: de *Camerata fiorentina*. Guilio Caccini schreef dat hij van de gesprekken in de Camerata meer had opgestoken dan van 30 jaar contrapuntstudie.

De leden van de Camerata wilden de oude Griekse muzikale idealen verwezenlijken in de moderne muziek. Uitwerking daarvan betekende een verstaanbare gezongen tekst begeleid door heldere harmonie. De middelen die daarbij werden ingezet waren niet nieuw, maar de motivering waarom en het uiteindelijke resultaat waren dat wel. Het is niet waarschijnlijk dat zij er in slaagden oude Griekse muziek historisch accuraat te doen herleven. De Camerata leverde een belangrijke bijdrage aan het ontstaan van de opera.

In 1578 schreef Giovanni de Bardi een *Uiteenzetting over Oude Muziek en Goede Zang opgedragen aan Giulio Caccini*. Dit vertoog kan worden gezien als een voorloper van Vincenzo Galilei's Dialogo della musica antica et della moderna uit 1581. De verdiensten van Vincenzo's boek zijn groot. Om er enkele aan te halen: hij bevrijde stemmingen van cijfer theorieën, hij stond voor observaties en experimenten, een beroep op autoriteit is niet beslissend, wetenschap dient de waarheid, kunst dient de verbeelding.

In de Camerata bracht Galilei niet alleen theoretische vragen en antwoorden maar experimenteerde ook met diverse op muziek gezette teksten. Van deze experimenten weten we alleen uit een brief van de zoon van Giovanni de Bardi aan de geleerde Giovanni Doni, een halve eeuw na het gebeuren geschreven.

In de laatste jaren van zijn leven heeft Vincenzo diepgaande artikelen geschreven over muziek. Daaruit valt onder andere te halen dat de romanesca volgens hem de vorm bij uitstek was om epische poëzie muzikaal te begeleiden. Het geheim van de Griekse kunst was beperking van middelen. De melodie moest beperkt zijn tot maximaal vier hoofdtonen. Een zanger kan acht tot tien noten zingen zonder zich te forceren. Dat is het materiaal waarmee alle emoties uitgedrukt kunnen worden.

De niet gepubliceerde geschriften van Vincenzo zijn nauwelijks bekend en bestudeert. De musicoloog Claude V. Palisca heeft in de twintigste eeuw pionierende artikelen geschreven over Vincenzo Galilei. De stand van zaken is dat zijn complete werk moeilijk beschikbaar is en zijn betekenis uit zicht. Het is tekenend dat er geen goede biografie beschikbaar is, nog een verzorgde uitgave van al zijn teksten en muziek. Deze uitgave van de 100-delige romanesca is een kleine stap die voorziet in een leemte.

1584 Libro d'Intavolature di liuto

Het manuscript is geschreven in Italiaanse tabulatuur, cijfers geven de positie van de vingers op de hals van een zessnarige luit. Je moet een ervaren muzikant zijn om het te kunnen spelen: het is technisch veeleisende muziek.

Er zijn drie delen, aangevuld met een verzameling afzonderlijke muziekstukken. Het derde deel lijkt los te staan van de eerdere twee delen en bestaat uit gaillardes met mythologische namen.

De eerste twee delen vormen een geheel. Deel I bestaat uit drie soorten dansen: de passamezzo antico, de romanesca antica en saltarellos. Deel II bestaat uit passamezzo moderno en romanesca moderna – er staan verwijzingen naar de saltarellos van deel I ter afsluiting.

Deel I is dorisch en deel II ionisch; gebaseerd op een mineur en majeur toonladder. De groepen dansen in deel I en II staan in een volgorde van twaalf stapsgewijs dalende intervallen van een gelijkzwevend octaaf. Er is een variabel aantal dansen per interval.

De akkoordenprogressies van de passamezzo en de romanesca zijn bijna identiek. Volgens Vincenzo hebben ze een tegengesteld karakter: de passomezzo is rustig en de romanesca opgewonden.

De *Romanesca undecima con cento parti* staat aan het einde van deel I. Het aantal van honderd variaties is uniek, voor dit manuscript, voor de luitliteratuur en de muziekgeschiedenis tot dan toe.

De romanesca is harmonische standaardformule en zeer geliefd in de 16^{de} eeuw. De akkoorden hebben een grondligging. Er een standaard melodie van dalende noten aan verbonden, maar die werd niet altijd gebruikt. In de onderhavige variaties heeft Vincenzo op vernuftige wijze de bekende melodie verwerkt.

Deze publicatie van de *Elfde Romanesca bestaande uit Honderd Delen* is een pleidooi om oog en oor te hebben voor de geweldige artistieke zeggingskracht van Vincenzo's kunst. Zijn muziek is verfijnd, oorspronkelijk, en gevarieerd. Het moet het niet hebben van het grote gebaar op een breed podium. Zij is gemaakt voor een intieme setting, daarbinnen komt de hele wereld dramatisch voorbij. Vincenzo's muziek is verrassend effectief en vol uitdrukking.

Het doel van deze uitgave is het beschikbaar stellen van de luitpartituur en toegankelijk maken van deze muziek door middel van een transcriptie naar het bekendere muziekschrift.

De luitpartituur is opgeknipt en per deel op 1 bladzijde ingedeeld om de structuur makkelijk te kunnen overzien. Linkerpagina (luitpartituur) en rechterpagina (regulier notenschrift) hebben dezelfde indeling. De muziek op de rechterpagina is zo getransponeerd dat een gitaarspeler er mee uit de voeten kan. Een uitvoering op een toetseninstrument op basis van deze partituur behoort tot de mogelijkheden. Historisch gezien is een concert door strijkers nog beter te onderbouwen. Op YouTube valt een opname te beluisteren gemaakt met behulp van MuseScore software: geen muzikale interpretatie, wel een nauwgezette indruk.

De Poëzie-hypothese

Zoals Vincenzo's eerste publicatie uit 1563 al laat zien hield hij veel van het zingen van poëzie, het is een rode draad die al zijn werk verbindt.

Aan het slot van deze uitgave van de *Romanesca undecima con cento parti* is een Engelstalig artikel toegevoegd. Dat stuk is spontaan geschreven na het uitschrijven van de getransponeerde partituur: het kenmerkt zich door vele losse invallen en gaat in op allerlei vragen over deze romanesca. Zoals: Waarom heeft Vincenzo Romanesca 11 zo lang gemaakt? Hoe valt de muziek te plaatsen in de ideeën die Galilei had over muziek?

De slottekst is het resultaat van jarenlange studie naar de eigenschappen van deze romanesca. Raadselachtige kenmerken vielen op hun plaats met de hypothese dat de muziek is gemaakt om epische poëzie bij voor te dragen.

Neem Vincenzo's uitbreiding met vier maten van het traditionele akkoordenschema van de romanesca: wat is daarvan het nut? Een bevredigende uitleg is dat dit een gestructureerde adempauze is voor een zanger. Er zijn historische bronnen die bevestigen dat dit de manier was waarop epische poëzie werd voorgedragen: twee regels tekst met daarna een kort instrumentaal tussenspel.

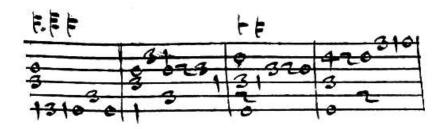
Vanuit die gedachte zouden vier romanesca delen de begeleiding van acht dichtregels vormen: samen één stanza, een eenheid van een achtregelige strofe met rijmschema abababcc. Het couplet van dichtregels zou een verklaring kunnen zijn voor de driedubbele maatstreep aan het einde van iedere groep van vier romanesca delen.

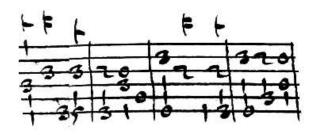
Een ander voorbeeld is de vraag: waarom is er een ritornello toegevoegd? In de 16de eeuw werd deze vorm gebruikt om een vocaal muziekstuk af te sluiten.

Wat met de hypothese ook op zijn plek viel is de variatietechnieken die zijn toegepast: aan de ene kant zeer vernuftig, verfijnd en beheerst ingezet maar ook bescheiden en niet op de voorgrond tredend. De dienende functie van een muzikaal begeleider bij de voordracht van epische poëzie maakt het begrijpelijk dat de muziek thematisch en qua ontwikkeling niet op de voorgrond treedt.

Het slotstuk gaat in op de vraag welke epische poëzie mogelijk door Vincenzo op deze muziek is gezet. Er zijn argumenten te vinden om te betogen dat de eerste 24 stanza's van het 34ste canto van de Orlando Furioso geschreven door Ludovico Ariosto passende poëzie is om te combineren met de *Romanesca undecima con cento parti*. Dat zou een basis zijn om een reconstructie te maken zoals een experiment van Vincenzo voor de Camerata geklonken zou kunnen hebben.











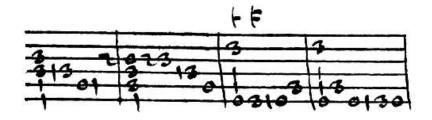


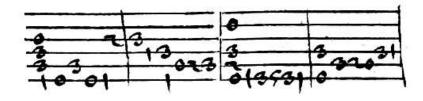


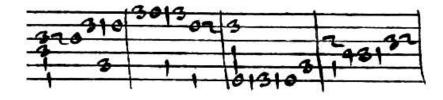


















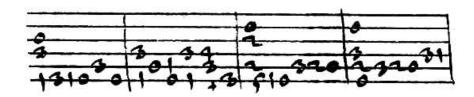


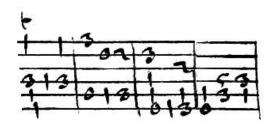


















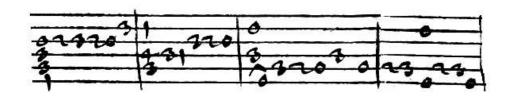




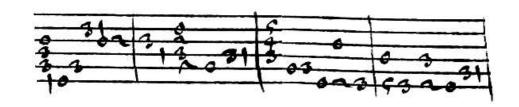














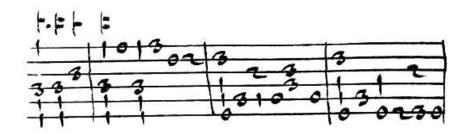


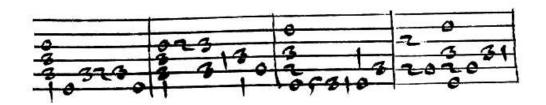


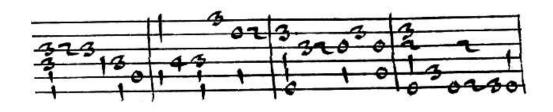


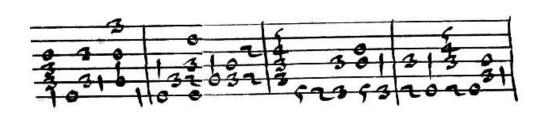






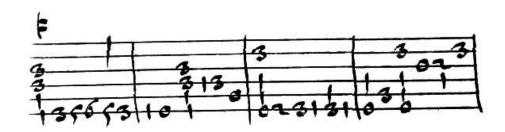


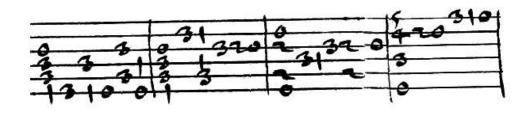


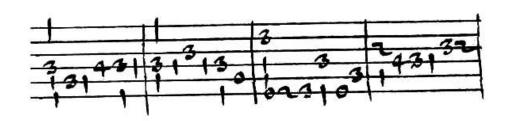


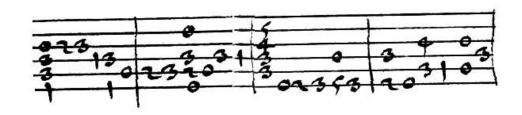














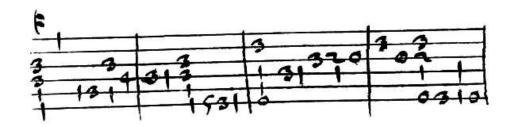


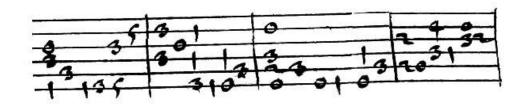






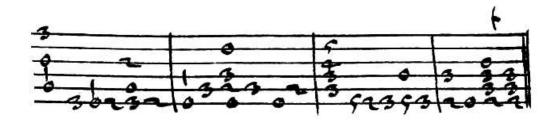












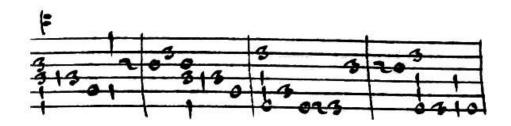


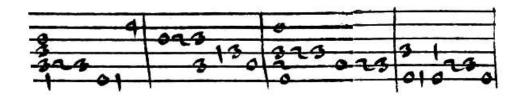


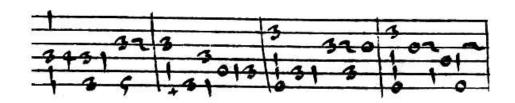




























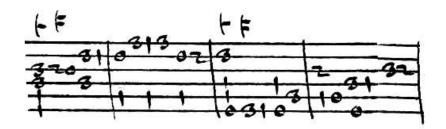


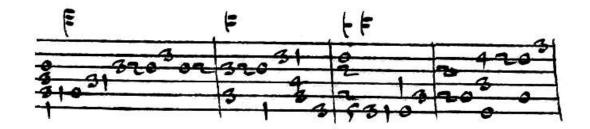














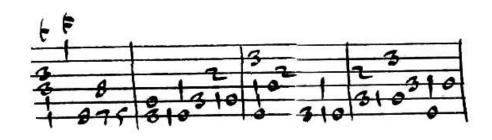












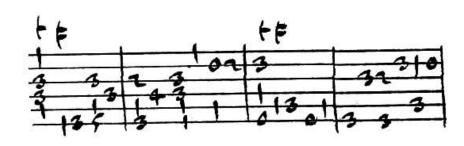




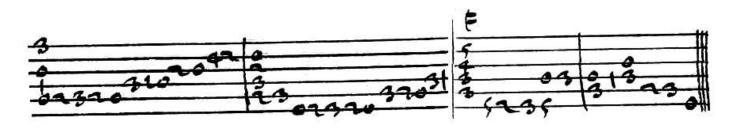










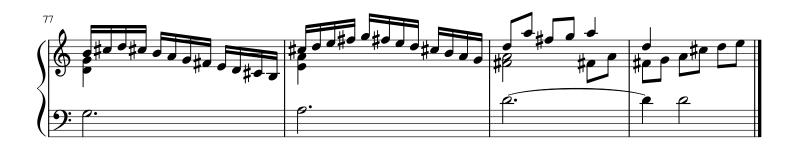


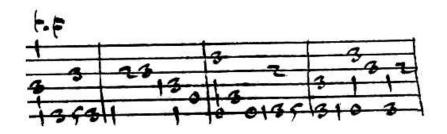


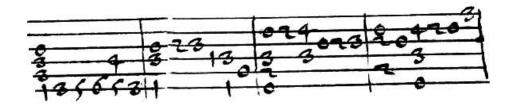


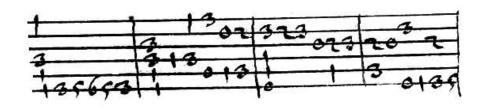


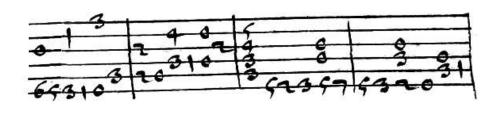










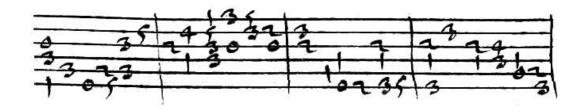


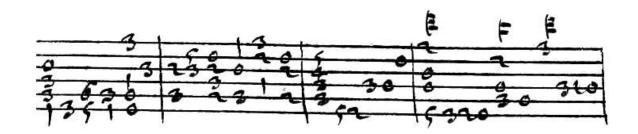








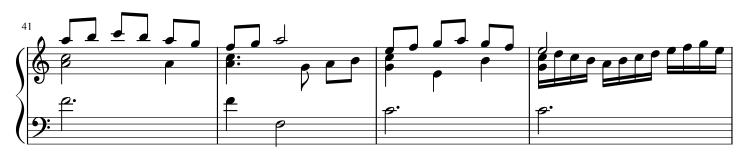
















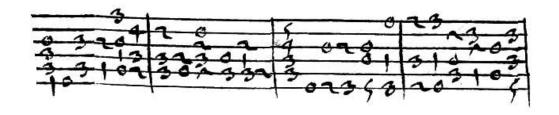










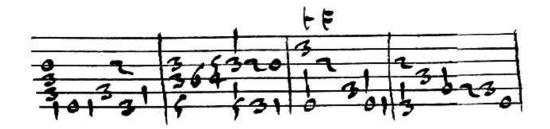








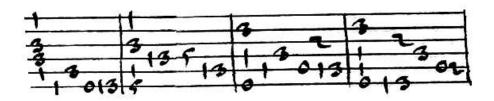


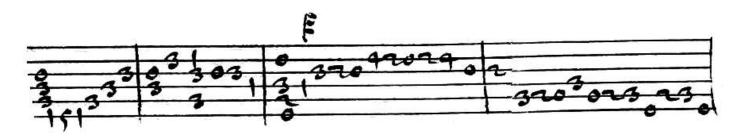


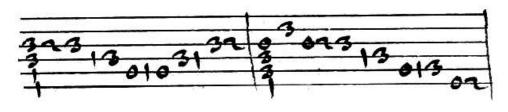












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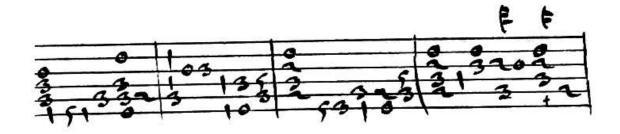


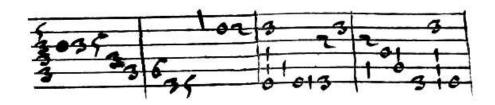
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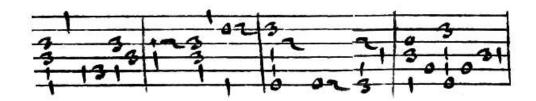








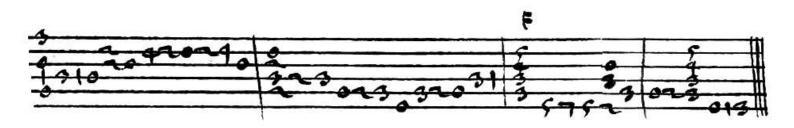


















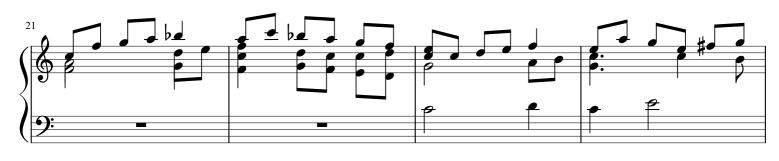










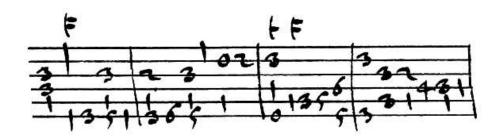


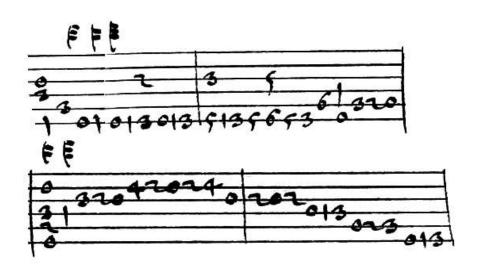


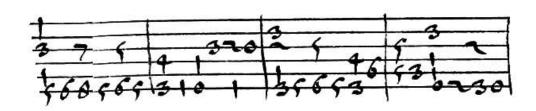


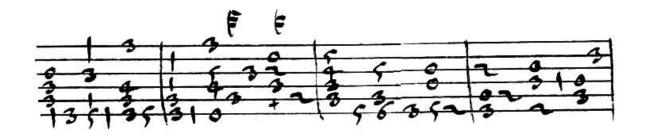








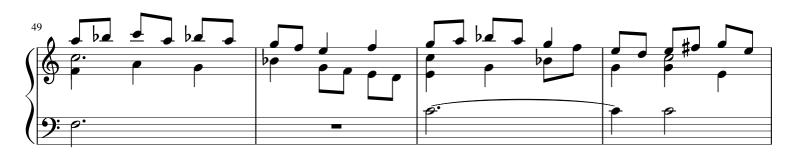


















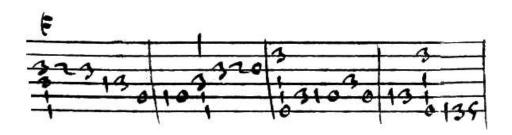


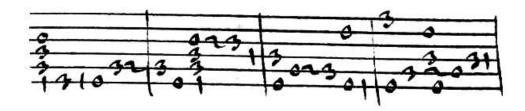


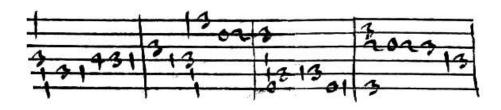




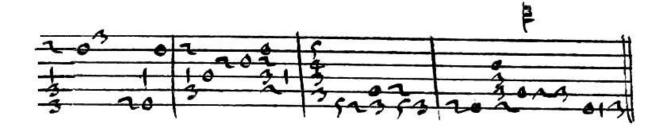
























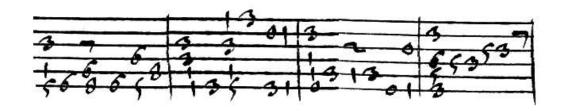


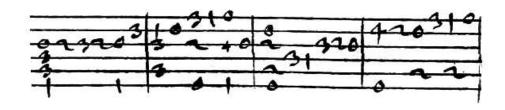


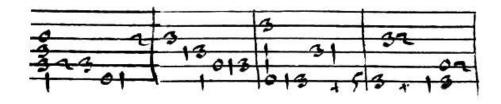
















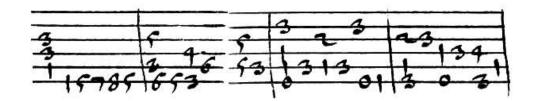


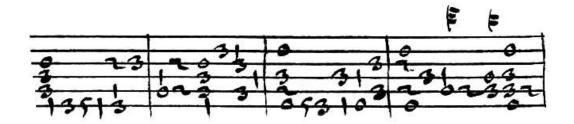


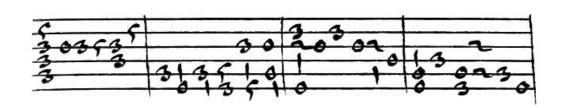


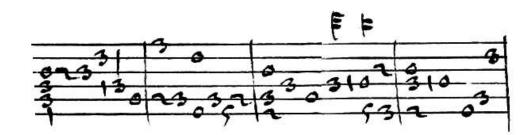




































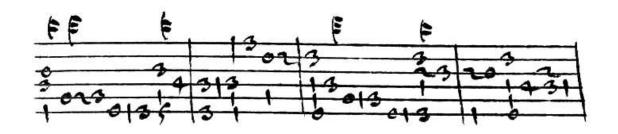




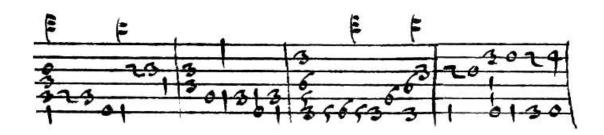














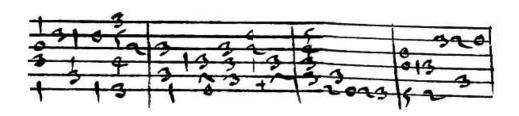


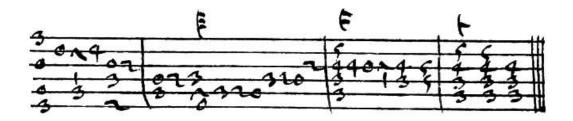












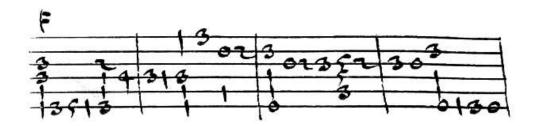


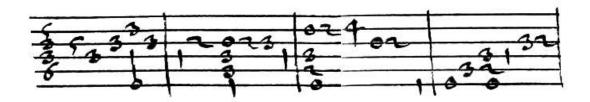


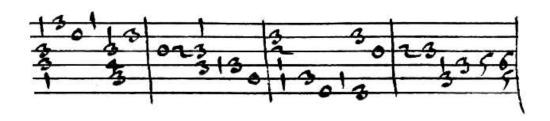


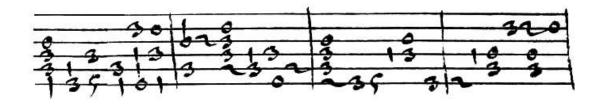








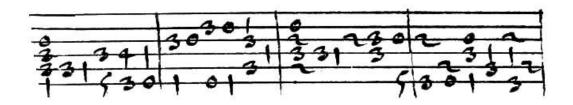


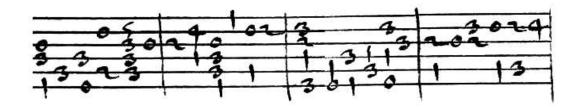


















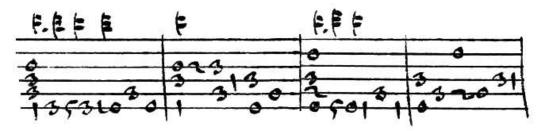










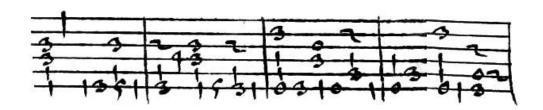






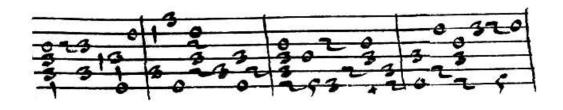


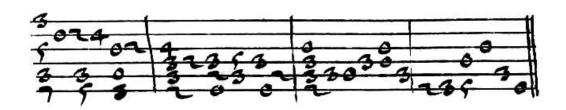












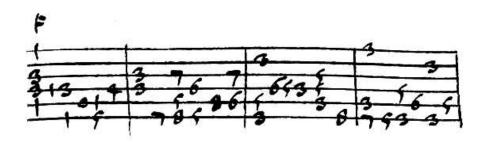
























































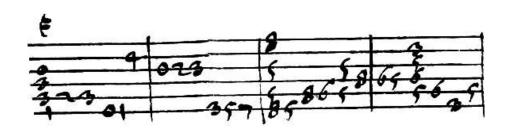


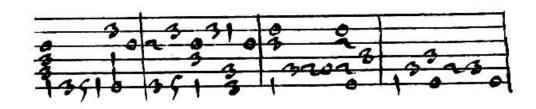


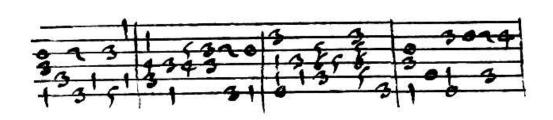


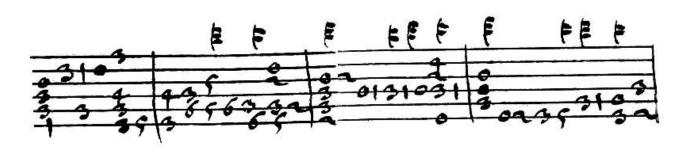










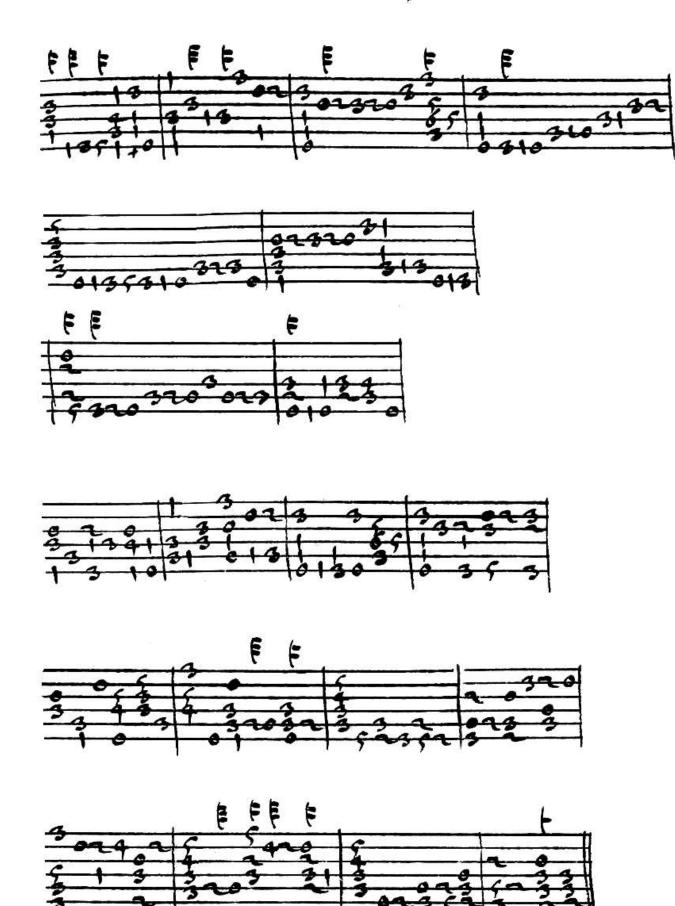








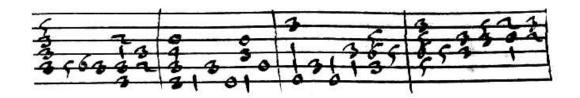
















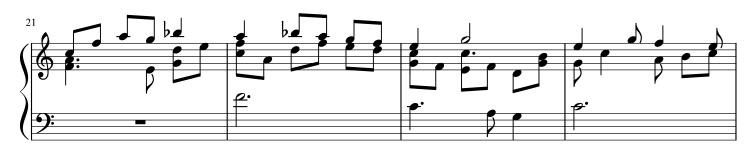
























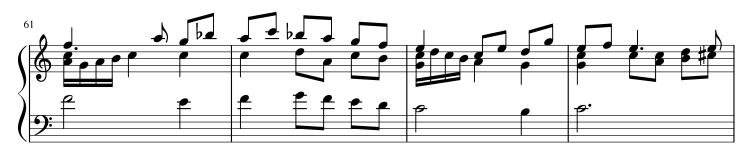










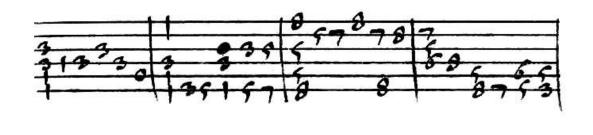


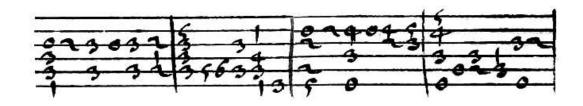


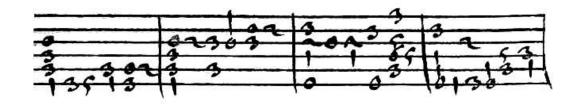






















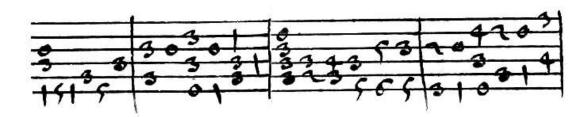




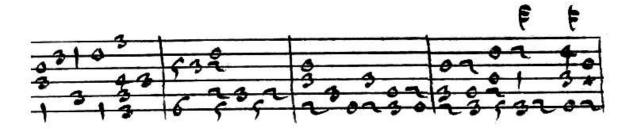






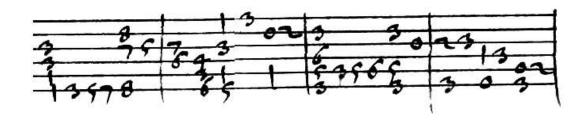


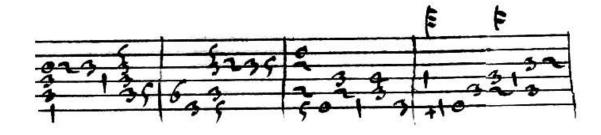




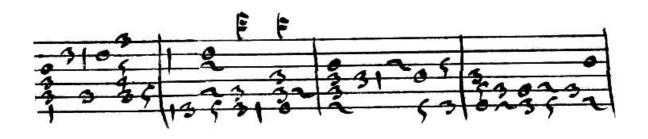


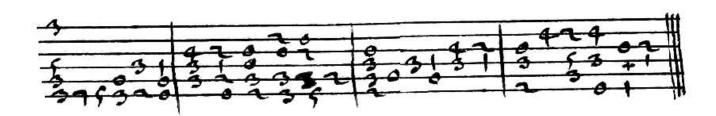
























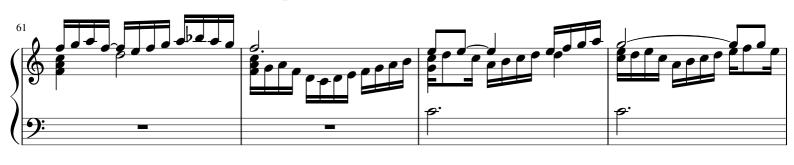












































































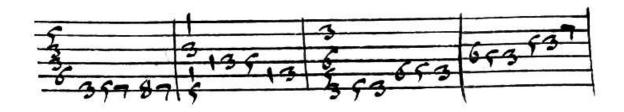
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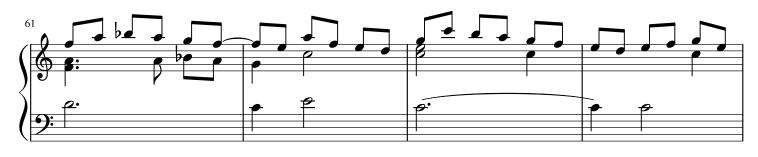


















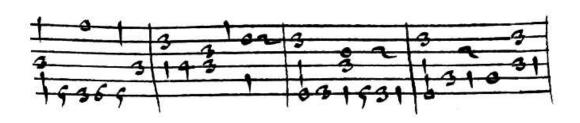






























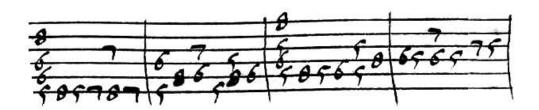


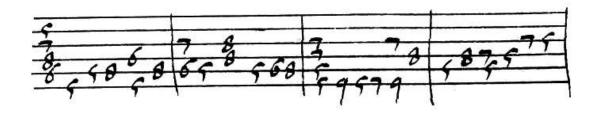


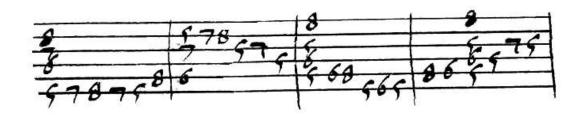




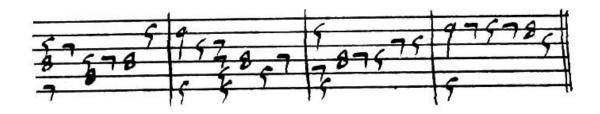












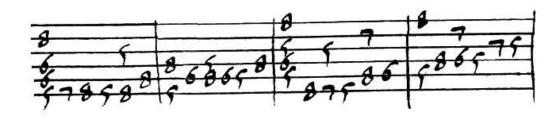


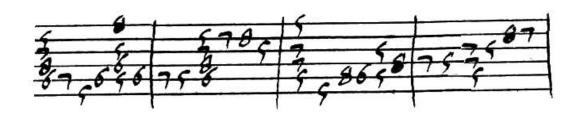


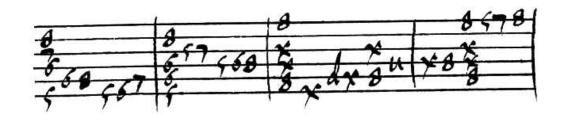


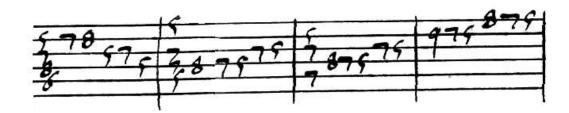
















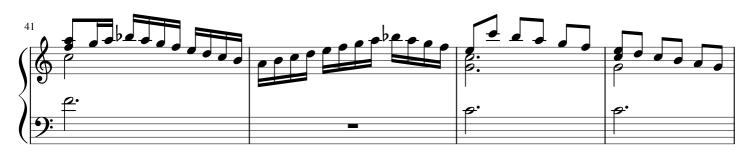










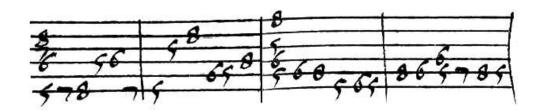


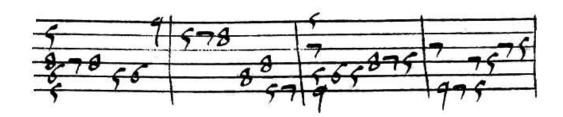


















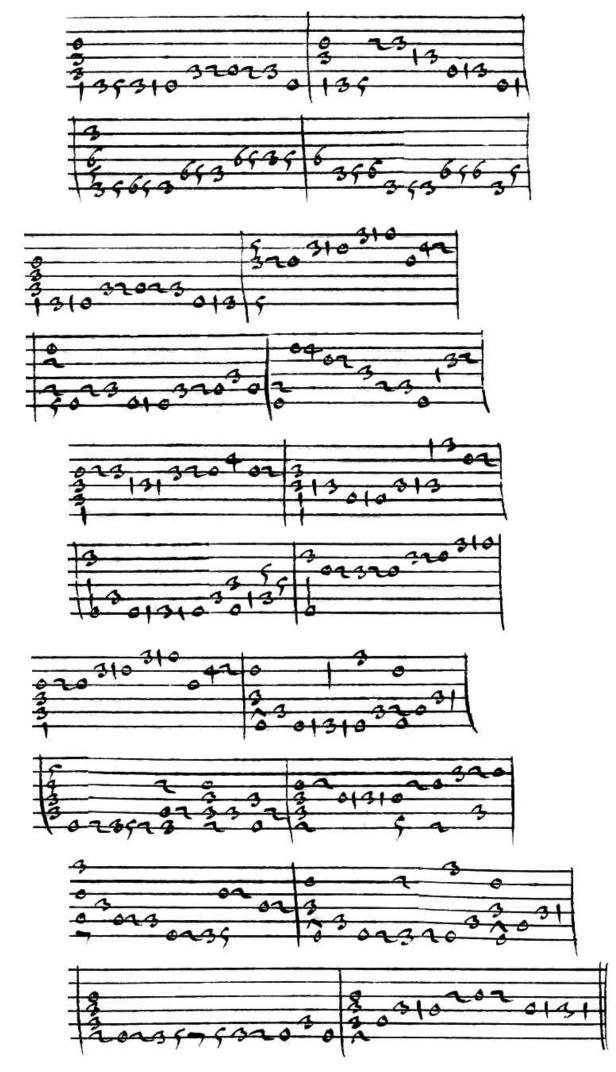




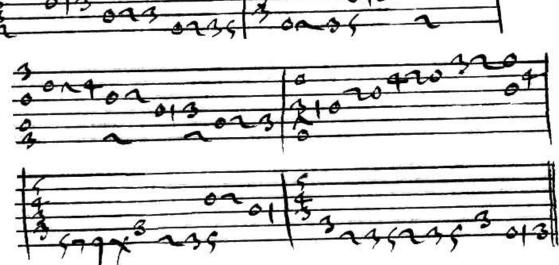












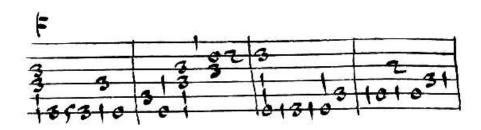




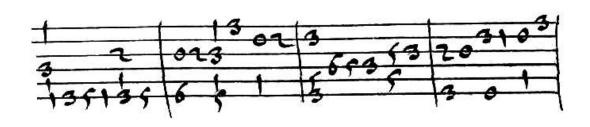




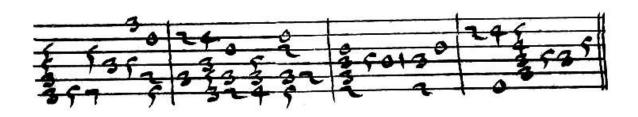




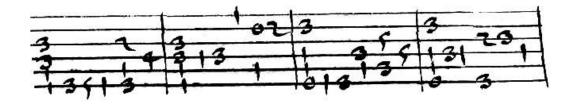




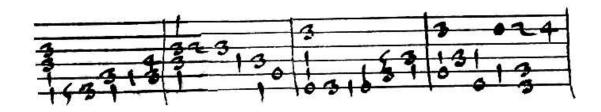




























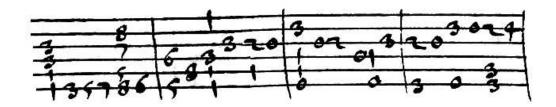




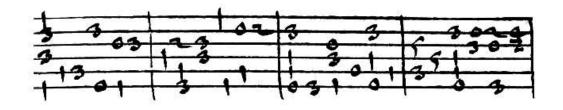




















































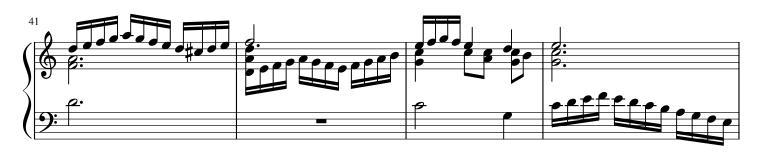




































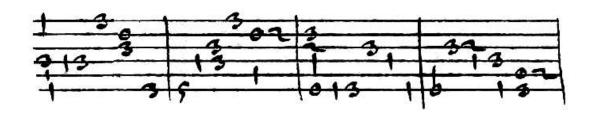




















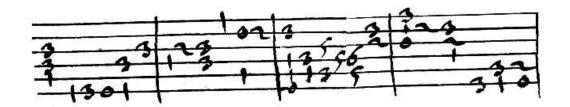




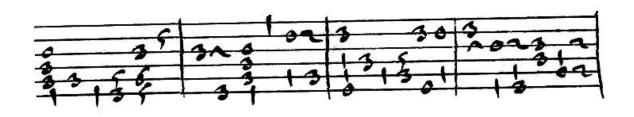


























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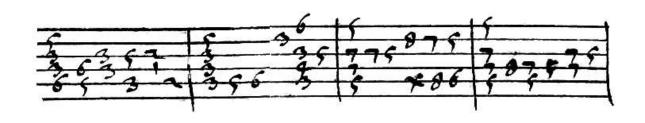


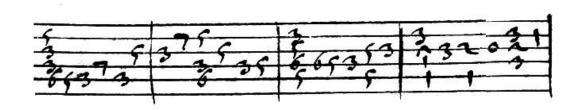




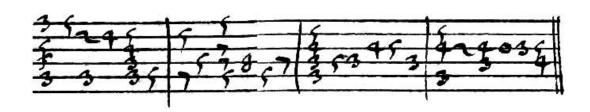












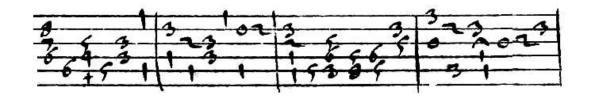


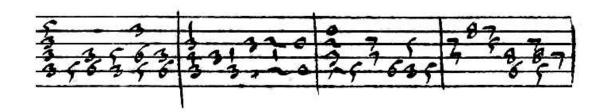


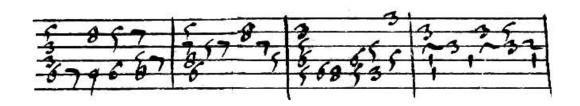




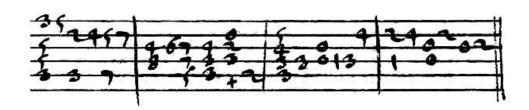














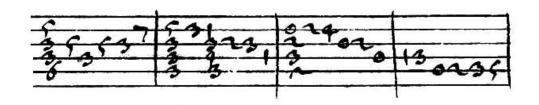






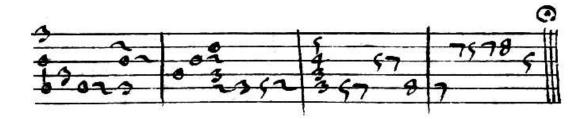
























Ritornello secondo



112 Sogra il medesimo passemezzo 11:



Sopra il medesimo passemezzo 11°:





Sopra il medesimo passemezzo 11°:





Sopra il medesimo passemezzo 11°:





Sopra il medesimo passemezzo 11°:



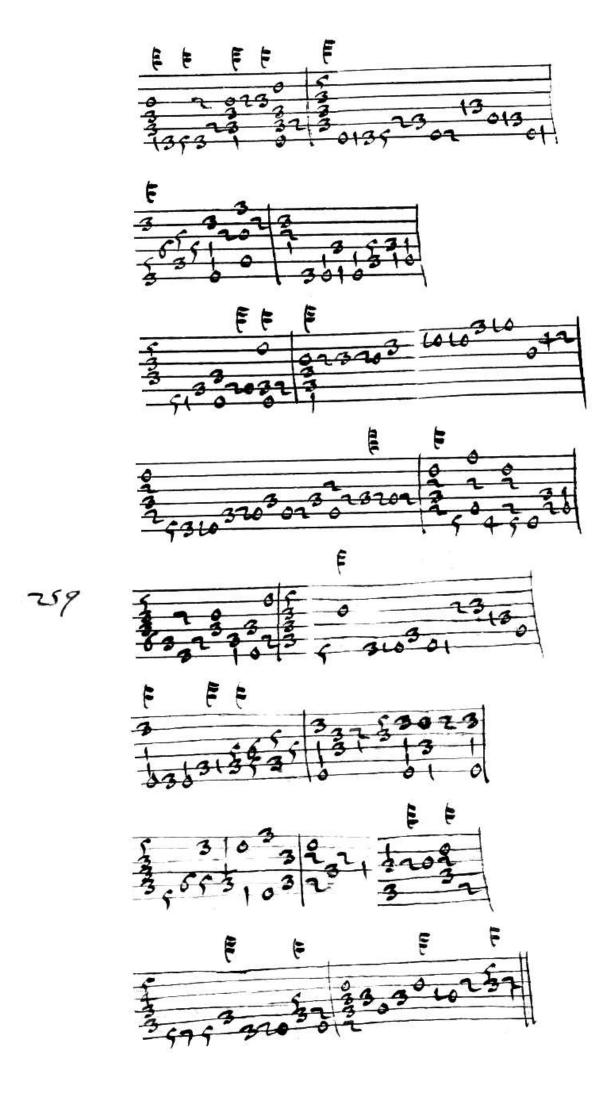
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Vincenzo Galilei's

Romanesca undecima con cento parti

By Joost Witte

Front: Terracotta amphora ca. 490 B.C.E.

A singer guided by a kithara declaiming epic poetry at a competition

Attributed to the Berlin Painter
The Metropolitan Museum of Art

Vincenzo Galilei 1581 Dialogue: "Happiness is to know and understand"

A diary

Vincenzo Galilei (3 April 1520, c. 1520, or late 1520s – buried 1 or 2 July 1591) was the father of the astronomer and physicist Galileo Galilei and the lute virtuoso and composer Michelagnolo Galilei. In 1581 Vincenzo published a theoretical work entitled *Dialogo della musica antica et della moderna*. It reflects on discussions and experiments in Giovanni Bardi's Camerata Fiorentina about how to revitalise Ancient Greek Drama. Galilei's book is full of new ideas: for instance musicians should study how actors express themselves on stage, to learn how to bring all affects.

Vincenzo's creative thoughts and insights were fuelled by the Camerata's talks and he came up with new ideas and compositions. In 1582 and 1583 Vincenzo experimented with singing epic poetry. One text was from Dante's Divine Comedy: the lament of count Ugolino. He set to music some religious texts: the Lamentations of Jeremiah and the Responses for Holy Week. He also set in a hurry ten stanza's of Ludovico Ariosto's Orlando Furioso. All this music is lost.

In 1584 Vincenzo composed and compiled an Intavolatura di liuto.² It included a musical parade of more than fifty Greek personages whose names augur many opera heroines to emerge, like Euridice and Ariadne. Their names would come up in many future operas. Vincenzo's manuscript additions even feature a Viva Don Giovanni.

The manuscript wasn't published. Reason why there is virtually no history of its reception till the 20th century. In the last century, some scholars have paid some attention to it, and Vincenzo's book has received harsh criticism.

Oscar Chilesotti accused Galilei in 1903 of excessive uniformity and therefore monotony³, which Fabio Fano repeated in 1934⁴. In 1954 Nino Pirrotta stated: Galileo's father never does face up the real problem of how a return to Ancient monody was to be effected. Howard Mayer Brown supposed in 1992 that Vincenzo made standard chordal progressions more intellectually impressive by naming them after Muses and other, most classical, ladies.⁵ In 1993 a facsimile of the *1584 Libro* was published with a preface by Orlando Cristoforetti, who presumed that Vincenzo had a botanical interest, naming some compositions after herbs and plants.⁶ In 2003 Claude V. Palisca - the authority on Vincenzo's legacy - reduced the importance of the 1584 manuscript to a footnote describing where to find a list summing up its pieces.⁷

These scholars are big names in the field of musicology, but already in his 1581 Dialogo Vincenzo argued that an authority is not necessarily right.

Different qualifications were phrased by lutenist Žak Ozmo who recorded some pieces of Vincenzo's 1584 lute book and stated that he discovered a surprising amount of musical refinement within its limited format.⁸

One could consider the *1584 intavolatura* like a conceptual dairy of Vincenzo's thoughts during the early eighties. Also one could say that he was facing what was asked for: how to revitalise Ancient Greek Drama, and putting his money where his mouth was.

Here in this treatise the focus is only one of its parts: The *Romanesca undecima con cento parti*. It is one of its crown jewels and a sublime masterpiece. This article describes its features and analysis its concepts. Special attention is given to the possible of its likely use for declamation of epic poetry. Did Vincenzo document with this romanesca and its monodic features the best of his experiments before the Camerata?

Primary goal of this project is to provide for an accessible score and clear analysis. The kind I would have liked to read when I bought a facsimile in 2001 from *Studio per edizioni scelte* at the bank of the river Arno in Florence, which left me puzzled. This article logs my personal journey and thoughts in a series of loose observations. These will be interspersed here and there with quotations form Vincenzo Galilei himself, when they seem appropriate, like:

Vincenzo Galilei 1581: "Continuous talk that runs like a stream does not seem to have the force and vigor in the presentation of arguments and conclusions as does a dialogue."

Tuning and lute specifics

The 1584 intavolatura di liuto was composed for a lute with six courses pitched G5 \cdot D5 \cdot A4 \cdot F4 \cdot C4 \cdot G3.

Twelve frets were positioned with a 18:17 ratio resulting in equal tuning. Vincenzo advocates twelve-tone equal temperament.⁹

The gut strings came from a sheep or a wild animal such as a wolf. From the entire length of the gut of one beast one could obtain all necessary strings: from one end to the other little by little they get thicker and harder. On the lute sheep and wolf sometimes sweetly sung together in a cruel constellation.

Some sellers coloured gut strings azzura blue or pavonazza red.

Particularly the gut bass strings, course five and six, tended to be slightly false in the high register, they provoke sometimes an unintended charm associated with wolf's crying but contradictory to the intended goal of demonstrating equal temperament in practice.

Seemingly simple the passage below is actually technically very demanding, high up the neck strings have to be plucked with more force, not very comfortable the player who has to balance four voices – and corresponding with the tensions of the uttered affect.

Part 78 measure 11 mark the following notes:
course three position **11** (unique for this Romanesca)
course two highest position 12th fret **d**course one highest note **X** (always a short passing note in this romanesca)



The setting of tab and staff enables to observe and compare structures at a glance.

Vincenzo Galilei 1584: "And to show to you how much unity, convenience and proportion the frets and strings of the lute may have with each other, notice that on the same string and fret is found the diesis of G sol re ut and the b molle of A la mi re."

Meter and harmony

The meandering river of the 2000 measures of the *Romanesca undecima con cento parti* is never the same. For those who long for stability: that is not what this romanesca has to offer.

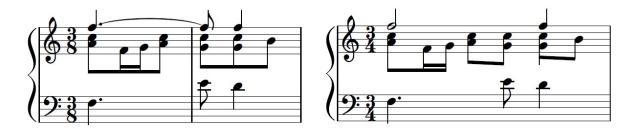
The result of all the turbulence and turmoil is an experience of ongoing movement & omnipresent transformation, a song sang from a book of changes, privileging no single point of view, but more a kaleidoscopic view like Ovid's Metamorphoses.

Harmony and meter determine its flowing character and fleeting features. As for harmony: one never gets a firm footing on the ground of the romanesca's harmonic centre, the current is too deep.

As for meter: It also escapes the waves of a steady scaled threefold heartbeat due to musical accents that do not coincide with the metric, often alternating 3/8 with a 3/4 time signature.

These features are relevant later in this article in connection with the rules for placing accents in the Italian language.

Romanesca undecima part 1 measure 1 & 2 to the left the way as notated by the scribe, to the right extended to the way it will be played by a musician and be heard by experience of his audience:



It is usual to have melodic, rhythmical, numerical (the number of voices), harmonic and articulatory accents in contrast to the meter – in this romanesca their positioning pleads for merging two 3/8 measures to one 3/4. It undermines the steadfastness of the 3/8. Not only in the melody but also in the bass this irregularity is present. The overall result is that one never can tell for sure what pulse to hear or count to rely on.

This explanation may seem dry but for the listener this stream is teeming with life.

Vincenzo Galilei 1584: "Each time I come to the banks of the river I seem to be transported from the torments of Hell to the pleasures of Paradise."

Music theory

Music theory is mostly descriptive — acts following facts. In Vincenzo's case the order was sometimes reversed: form follows theory. His study of the Ancients taught him that voicing a heroic poem was free of regular rhythm, not done in a continuous flow. This was a starting point that had to be realised. Without Ancient examples the question was: how?

There were modern musical issues where the concept of regular rhythm caused problems and of the sort that the scribe Vincenzo encountered daily or weekly. The output of two

composers, both mentioned in Vincenzo's preface for his first lute libro of 1563, are connected to this topic.

Cipriano de Rore was praised by Vincenzo above all because he succeeded in clear text expression & unintentionally fulfilled the Ancient ideal. Although not unprecedented he was one of the first to promote black notes: notating the music in C instead of alla breve | half time. Note nere (English: black note) was a style of madrigal composition, which used shorter note values than usual and had more black note-heads. Graphically the shorter times values resulted in a darker page.

This was not simply an exercise in halved note values: no exact proportional relationship exists between C and 4/4. ¹¹ Theorists broke their head over cases in which long units had to be divided not in two but three parts for the sake of measure.

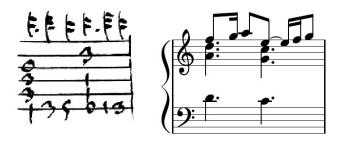
This question arose from scribing composed music.¹² The same question popped up in a complementary situation: playing from notation without bars. The modern text critical edition with barlines of the music of Francesco de Milano – the other composer mentioned in Vincenzo's preface¹³ & whose style he pastiched – faced this point recording Vincenzo's ricercares from 1563: taking position contradicts the ambiguous nature of this music.

The theorist Giovanni Artusi mentioned in 1589 that Vincenzo ran a music school in Florence ("Sonatore di Leuto et Mastro da Scola"): the ambiguous rhythmic aspects would have been encountered during lessons.

Modern problems were an answer to the question how one could be free from regular rhythm. Ambiguity was a phenomenon of the real world, not rare but ordinary – embracing it on a conceptual level was a mastermind choice.

The last pages of Vincenzo's unfinished manuscript *Compendio della musica theoretica* from 1570 contain examples of the complications that occur when you score music twice as fast. Vincenzo was able to use these difficulties as a musical tool. The accentuated sounds of the Italian language must fall musically on an emphasized part of the measure. By dividing a three-part time signature, a shift occurs in the places where the accent falls. This makes it possible to place syllable accents on so-called weak parts of a measure.

In the romanesca undecima sporadically a polymetric bar can be detected with two beats, part 51 measure 5 hemiola:



Irregularly distributed, those hemiolas surprise and spice - they don't need to be pressed into the straitjacket of an overall meter. Especially the two groups of sixteenth semiquavers increasingly contain this type of hemiola.

Contrasts typify the inventiveness of the music.

Vincenzo Galilei 1581: "Cipriano de Rore, a musician truly unique in his style of counterpoint."

Contradictions

Vincenzo was a man who spoke, wrote and composed in contradictions¹⁴ – partly because of the nature of his pioneering studies and partly because of the essence of his art and being.

Part 1 measure 3 and 4:



This opening fragment starts with a C major chord in root position. The modern word *chord* was used regularly by Vincenzo.

Alt, tenor and bas play around C major in unclouded happiness. The soprano exposes a contrasting motif $\mathbf{e} - \mathbf{f} - \mathbf{g} - \mathbf{e}$: small intervals containing much sorrow, characteristic for the Phrygian modus.

A different kind of expression is accomplished in parts 5-8 where the motif is transformed to $\mathbf{e} - \mathbf{fis} - \mathbf{g} - \mathbf{e}$.

A dramatic role in the *Romanesca undecima* can be attributed to the oscillation of **f** versus **fis** in the form of minor or major third.

This example illustrate Vincenzo's predilection for contradictions and shifting meanings.

Vincenzo Galilei 1581: "It is evident that the same affection can be expressed more efficaciously by the similar than by the different."

Dividing a part

There are hundred parts. Every part consists of twenty bars that can be divided in three groups.

- ① The first group has eight bars that can be subdivided in four units of two each. In most units there is one triad prominent: here respectively F C Dm A. Tension is fuelled by the potential dominant function of the A major triad.
- \bigcirc The second group of eight bars also starts with the units F C. This repetition sets off the first group from the second. It is followed by a split unit Dm and A in one single bar and closes with D: the first concluding cadence. Dramatic surprise is the Picardy augmented third in the closing unit.
- ③ The last group has four bars, starting with another split unit: G A. This second concluding cadence suggests to end in Arcadian D with its Picardy third but many times a final shivering fall into a river of tears is accomplished by an f in the role of minor third.

In those cases where the Picardy third is sustained and not disturbed, the revolving start with a triad on F in root position in the following part still ensures that the bottom is swept away under your feet. The description of the pattern of the parts may be dry, but for a listener the result is diving into an impetuous experience.

Vincenzo Galilei 1581: "Judicious and learned people investigate afterwards the agreement and proportion of its elements and its properties and nature."

Expansion

The classic harmonic pattern of the romanesca is:

$$III-VII-i-V - III-VII-i-V-i$$

Vincenzo's romanesca pattern goes:

$$III-VII-i-V - III-VII-i-V-I - IV-V-I(i)$$

Vincenzo Galilei 1581: "After long experience they learned what displeased, what generated boredom, and finally what delighted the hearing."

Principal notes

Traditionally the romanesca triads accompanied a melodic formula:

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In the soprano part four and five descending notes express lament.

Compare this with Vincenzo's melodic frame for the Romanesca undecima con cento parti:



Remarkable is the lack of the descending four and five lamenting notes in two parts, the sobbing melodic repeats - the romanesca is crying a river, the extension with a another cadence, the prominence of the Picardy third, and the limited melodic scope.

Not visually illustrated in the above graphics is another noteworthy difference: Vincenzo's harmonic waves demonstrate a slow harmonic rhythm.

What did Vincenzo achieve with this stripped melodic frame? It brought simplicity for the improviser and dramatic depth with its contradictory harmony.

The lack of the traditional melody in Vincenzo's frame doesn't mean it's not there. Quite the contrary: its everywhere, but not on the level of the melodic framework. On a different scale every single frame-note is unceasingly embellished by four or five descending notes or an ascending pendant.

On the melodic level each frame-note is a romanesca on its own and its recursive appearance causes a so-called Droste effect. It is like putting a magnifying glass on every step, creating miniature comedies and tragedies.

Every main melodic note is the centre for the traditional romanesca melodic formula. Starting on f it has a Lydian character, swirling around e one senses a Phrygian flavour. On d Doric proportions seems to be dominant.

Fifteen romanesca undecima parts are slightly different from the others: they start on Dm and tend to behave more on D minor then as Doric. Their triads change at greater speed. In their last bar there is no shift from augmented to minor third. In a not very recognizable way they demarcate on a grand scale half, thirds, quarters and fifths.

Parts 49 and 51 provide an example: giving middle part 50 some emphasizing with mirroring harmonic deviations on its accompanying sides. This is not mathematics: just some

Vitruvian¹⁵ clarity casually applied. The Romanesca key melody notes are not changed in these parts.

Parts 97 - 100 have slightly different melodies in the principal notes, having great expressive impact, giving them individuality, which distinguishes these parts from the others. They are special.

Vincenzo Galilei 1581: "Seriousness was always in great repute and curiosities were vilified among the most prised Ancient musicians."

Melodic elements

Simple elements construct easy to combine melodies:



It was the soprano that had the air | melody. Long notes, motive and triad are embellished by the traditional lament and scales. The principal long notes, motif and the different scales met Vincenzo's view of how Ancient Greek features were to be realised.

The motif manifests itself in the role of subject. Too small to deserve the definition of theme, it functions as such, and appears in many rhythmic and harmonic shapes within a great range of affects.

Motif and lament are main substance of alto and tenor. The triad as melody is mostly located at the end of group two and three. Different scales or sets of intervals embody affects and connect and separate voices. In Vincenzo's view every pitch represents an affect on its own: all elements would metamorphose on every tone, having a different impact.

The bass walks with leaps but doesn't hesitate to take part on an elementary level.

Girolamo Mei¹⁶ 1573: "Those who practise the genre of poetry were called *epic*. Tragedy, comedy, satyr play and hymn were referred to by *melic*."

A Greek salad

Vincenzo stated in the 1581 Dialogo that the most important and principal part of music is to express all affections described by a poet with marvellous art.

Exemplary was the Ancient Greek Sakadas, famous for his festival victories, who organized a variety of harmony throughout a song by mixing three tonos: Dorian, Phrygian & Lydian.

Vincenzo Galilei 1581: "Sakadas organised the variety of harmonia throughout his song with such industry that his work and achievement were held in greatest esteem."

A Lydian opinion

One could consider the beginning of a romanesca as the harmonic centre.¹⁷ An example of this point of view can be found in Diego Ortiz's Recercada settima that uses a romanesca scheme: it is noted in the Lydian mode and therewith taking the first triad as base for the written mode. Ortiz's choice is not frequent, but illustrative for the ambiguous character of the romanesca.

Vincenzo probably knew Ortiz's collection: it was published in 1553 in Rome by Valerio & Luigi Dorico – a decade later the same house printed his first book.

Vincenzo Galilei 1581: "The Ancient used to proceed in playing and singing by conjunct steps rather than by separate leaps and to seek out few notes."

A Doric view

Pinpointing Dorian as mode one could wonder: where exactly does this happen?

The minor triad *df a* manifests halfway group one and halfway group two. One could say that the most important triad has the character of a passing note: how about that as main figure? This is daring art, subtle and courageous at once, perfectly equipped to imply meaningful connotations.

Sometimes group one or two starts with the d minor triad. In those passages the harmony mostly moves twice, three or four times faster as usual. There is no stable bass nor base in this world.

Vincenzo Galilei 1581: "The Harmonia of the Dorian mode had the best reputation."

Four parts, one emotion

Four romanesca undecima parts separated by double barlines form one division of emotions - and closing with triple barlines.

There are twenty-five divisions, each expressing one kind of feeling. The Romanesca River is a stream of consciousness stringing Affects: a River of Woe and Tears.

What's magic: with the same simple bricks an encyclopaedically catalogue of emotions is compiled. It's not all sombreness; how happy and cheerful are the punctuated melodies of parts 37 – 40!

Lorenzo Giacomini, triggered by Giovanni Bardi who reported in 1584 about the monumental treatise on Poetry written by Francesco Patrizi, lectured that the better a composer learned to sustain an affection, the more thoroughly could he induce purgation through simulated passion. This is why one piece of music should express one emotion. ¹⁸

The Doctrine of the affections - how to spiritually move the mind with music - is theoretically usually connected with the late Baroque. Giacomini's writing already eloquently express the foundations of that doctrine in Vincenzo Galilei's time and circles.

Vincenzo mocked musical word painting in his dialogue. When there is weeping and laughing in one stanza the composer should not adorn these words.

Four romanesca undecima parts are one piece of music, aiming at purgation by means of a single affect.

Vincenzo Galilei 1581: "There is no lack of corrupt composers who sought to paint the words."

Picardy third

The Picardy third is an augmented third ending a session or a final with a happy expression, while the minor scale would predict otherwise. In the *Romanesca undecima con cento parti* the Picardy third is so ubiquitous that it undermines the minor scale. There is never a decisive factor who reigns.

In many parts of the romanesca undecima in the last measure a single voice has a melody with a *fis* in it and a *f*. The note f has a very sad expression in this constellation.

In those cases in which the voice sticks to the fis the effect of the switch is transferred to the opening triad f of the new part. That major triad now has a sad undertone. The roles are reversed: the Picardy third contributes to the lamentable. This gives depth to the current.

Sometimes two voices perform the trick: with an long fis note on the third open course and a poignant f in the melody, part 71 last measure:



In his book *Fronimo* Vincenzo wrote about the emotional nature of thirds according to their being. Not only if they were major or minor, but also in which to context where they were

found: they sound more or less happier according to the particular place where the major - raised - third is.

Vincenzo Galilei 1581: "The lute and the viola d'arco are apt for such as the Dorian harmonia and grave and severe affections."

Cadences

$$III-VII-i-V - III-VII-i-V-I - IV-V-I(i)$$

The A major triad of the first group represented by a V capital has the potential to function as the dominant in a concluding cadence. As such it has the power to boggle on the function of the first triad on the second group.

As a consequence turning things upside down the F triad of the second group symbolised by III is sometimes replaced by the D minor triad. In those cases the connection of group one and two is that of a concluding cadence without Picardy third.

Being end and beginning in one they distinguishes themselves from the other cadences in the romanesca scheme.

A romanesca's blueprint is sometimes qualified as renaissance blues but that is a simplification of the romanesca's cadence wealth.

The continual propulsion fed by cadence variation prevents monotony.

Vincenzo Galilei 1589 - 1591: "It takes a different effort and knowledge to move the listeners to tears than to laughter."

The Senza Canto Remark

A marginal note to the last four parts reads: "queste quattro ultime son' senza canto". The ambiguous nature of the romanesca undecima also includes this concept. Words can have multiple meanings. What does *canto* mean in this phrase?

For lutenist canto is the name of the highest string, in lute jargon also called chanterelle.

Although small - there is repertoire composed for instruments with a missing course. The tiny top string could break any moment. When concerting a lutenist could switch the program to these pieces. This was not ideal. Another string could have snapped. The broken off piece wasn't restored but remained brutally unaccomplished. The followed up program would end soon because these compositions are short. Restringing or replacing the instrument would enable a prepared musician to pursue as planned.

When a string would snap at home in the hands of an improvising lutenist the lack of stock could inspire to compose with restrictions. The results has artistic quality on its own: a

lowered register opened a realm with special sonorities. Achieving this effect could be an goal on its own. Ending the *Romanesca undecima con cento parti* with parts without a top string could have been motivated by an artistic choice.

Vincenzo recalled in his 1581 Dialogue the story of Evangelus who on stage at the Pythian competitions broke three strings of his lyre. Wishing to compensate for the defect, which perhaps had happened to him in rehearsal, he took the opportunity to demonstrate his mastery. Galilei remarked: some moderns have similarly used and continue handicaps.

Vincenzo Galilei 1581: "Evangelus, wishing to compensate for the defect, which perhaps had happened to him in rehearsal, took the opportunity to demonstrate his mastery more forcefully."

Unity

What does canto mean? touches another question: are the parts meant to be cherry picked or is there dramatically built up unity in the whole?

A few have argued that making a small personal selection is the purpose of the outline of the manuscript. For them a small bouquet prevents it from being boring and a large scale design is declared non-existent.

For example Louis Gasser in his dissertation on Galilei mentions that it is unlikely that the variations of the romanesca undecima were intended to be performed in a row, which would result in a composition lasting one hour.¹⁹

There are features that make the *Romanesca undecima* a narrative with a grand scale view, to be chronologically experienced at once. This is achieved by the order of Affects and the means by which they are realised.

As the expedition continues more and more dissonants start pouring in, to name one. Or consider the working towards the high register and the highest notes or the hints that the sonorities of the lowest five courses will take over in the end. These are not random or loosely compiled parcels.

Having eye and ear for this blueprint appeals to the listener's imagination; it takes effort, but plunging into the deep is rewarding.

The Affect of the four parts senza canto is suited to end an epic journey: there is resignation, defeat and acceptance, beauty and sadness.

Could canto in the case of the *Romanesca undecima* also mean top voice as it does in Vincenzo's 1584 Fronimo and in the 1584 Contrapunti a due voci?

The 1584 Contrapunti starts with a five voiced fugue on a sonnet by Petrarch and is continued by pieces without words going through all modes. The preface written by his nine year old son Michelagnolo states that the top voice of the duets could also be sung. Which words or vowels and consonants is one supposed to sing? Did they use sonnets by Petrarch?

Notating voice and instrument parts on one sheet was a complicated and expensive mission.

An example of how Vincenzo's 1563 original composition *Cosi nel mio cantar* - words by Dante, cantar being another word for parlar - for lute and voice was scored in print:



The vocal melody doesn't have its own staff line, there is no specification which note belongs to which word. Without the vertical words on could classify this as pure instrumental lute music. Vincenzo's sheet music for singing is here graphically similar to instrumental music.

Besides the tilted words and printing technics the difference between this score and the romanesca undecima is lacking of bar lines. Placing musical and syllable accents was a craft that took experience and insight, and let room for individual choices.

Could the top voice of the *Romanesca undecima* be sang? Are the last four parts without singing, defining an instrumental postlude? The sober powerful melody being purely instrumental?

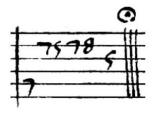
Vincenzo Galilei 1581: "Others want you sometimes to sing on the words without staff lines, signifying the names of the notes with the syllable-vowels or solmization."

Fermata

In the 1584 Libro d'intavolatura fermatas are used in two ways, distinctive between reverberation of sound or persistence of rest.

Above notes it prolongs their time value, settling down and indicating an end. Above triple bar lines it appends a short interval of silence, creating tension between sections of a work.

Romanesca undecima part 100 concludes with a cliff-hanger, switching again from the never tiring and ever surprising sudden impact of the reversal of the Picardy third, going from major to minor, from comedy to tragedy, from happiness to the river of tears, ending without an end:





What happens next and where does it end? Vincenzo did not annotate which piece to connect. The manuscript follows with an addition to romanesca uno. This sequence originated in unplanned inspiration and they aren't supposed to stick.

Inserting the Romanesca undecima con cento parti before the earlier notated romanesca undecima is troublesome. The creative outburst of the *Romanesca undecima con cento parti* dwarfs its predecessor and is out of scale with the other pieces of part I of the 1584 Libro.

Could it be that the multiple, growing, developing concepts made the manuscript a too many-headed animal which lastly determined its fate – reason why, despite all the care, inspiration and energy, the manuscript didn't make it to be published?

It is as if Bach inserted Die Goldberg-Variationen to Das Wohltemperierte Klavier.

Skipping the original romanesca undecima and continuing with the saltarello undecima also seems unfulfilling for the same artistic reasons.

Vincenzo Galilei 1581: "The most noble part of music is not the harmony but the thoughts and states of the soul expressed by means of words."

Ritornello

A fulfilling candidate to end the ride is the Ritornello Secondo penned on page 78. Designed for closure, suited for its ambiguous role going from one foot to the other, it tiptoes on a short stroll, pirouettes and does what it should do: end it all.

Composed for five courses - this time the lowest bass course is silent - it is a pendant to the last four parts of the *Romanesca undecima con cento parti*.

The ritornello had a history as the final lines of a 16th century madrigal and functioned as an instrumental refrain or closure for a vocal composition. It confirms the key: starting and finishing with the tonic.

This Ritornello is squeezed in between part 21 and 22 and could also be applied after every part defining an early break. Why was it scribed here? There was short space left on page 78 after part 21 and that part's last bar resembles the final of part 100, which could triggered and inspired Vincenzo to neatly document this unit over here.

Romanesca sesta also has a ritornello – it is added to page 37 and hastily penned: the sloppy writing and placement detract from the previously neat layout of the music. Perhaps Vincenzo regretted that untidiness and took extra care to make sure that the ritornello belonging to romanesca 11 was neatly notated.

Vincenzo Galilei 1581: "The difference between modes consisted principally in tension and relaxation of the strings and not as with modern practice where the difference is determined by the final."

Fronimo's ending

Vincenzo's Fronimo handed the final as decisive for the mode. This had a practical reason: a preluding lutenist has to help a singer start on the correct pitch. The last chord or note of the prelude and the beginning of the follow-up were usually the tonic, but the relationship between the two could also be a fifth-tonic cadence formula.

Fronimo's criterium of the final narrowed the scope of the question and speeded up making a quick decision for a specific situation. It did not implicate Vincenzo was of the opinion that the final in general was decisive.

Vincenzo Galilei 1581: "I wish to reprint Fronimo with a greater abundance of secrets than in the first edition and other things that are very useful and necessary."

Ready for print

The 1584 Libro d'Intavolature di liuto and 1584 Fronimo have many ties. In Fronimo 1584 Vincenzo stated that he had 120 books with intabulations and original compositions ready for publication. He declared that every musician should have a library (more specifically: his library).

The 1584 manuscript with the *romanesca undecima con cento parti* must have been the first book he wished to publish. With his dedication of Fronimo 1584 to Jacopo Corsi he must have hoped for a financer for the project. Just as his dedication of Fronimo 1568 to the Duke of Bavaria had been very profitable for him.

The enormous amount of 120 books probably didn't make a clear financial business case. Starting with one ready for print was an improvement for attracting any participant, but history tells there were none.

Vincenzo's library was a great treasure – now lost forever, but the surviving distilled 1584 lute manuscript has more the volume of a gold bar than of a nugget.

Vincenzo Galilei 1581: "To stimulate great and capable minds to put such a noble science into practice and to seek to restore it to its first and happy state."

How the manuscript was used

There are some small telling clues. Focussing on the *romanesca undecima con cento parti* there are relevant indicators. Part 7 is thoughtlessly repeated and in part 60 three bars are missing: because they are not corrected one might presume that they were not seen after neatly scribing the pages.

Vincenzo's creative mind didn't stop when it became clear this book wouldn't make it to the press. He kept adding new pieces, but because there was no need to be neat the handwriting deteriorated dramatically.

A different kind of clue can be found on one of the last pages: a different hand made a list of copied pieces. One possible scenario is that this is the handwriting of his son Michelangelo who made an inventory of the pieces he had studied.

Vincenzo Galilei 1581: "They repeated the same kind of one of this airs for each group of lines, not unlike when a capitolo is sung to the lute and also in dance songs."

Contrapunti a due voci

Michelangelo wrote in the 1584 preface of the two-voiced contrapunti that Vincenzo composed them recently in a couple of days, nonetheless some can be found in 1568 Fronimo.

Vincenzo Galilei 1581: "The simplicity of only two voices does not fully satisfy the hearing."

Fronimo additions

Two copies of Fronimo 1568 are of very special interest: the Landau & the Riccardiana exemplars.²⁰ Both are bound with handwritten additions by Vincenzo. They are gold sieves filled with nuggets.

Not all handwriting is by Vincenzo, a none identified hand can be detected in both copies. An substantiated plea can be made that this are time machines giving an image of his son the young Galileo learning how to compose, play lute and sing poetry. (Galileo's first biographer and personal assistant wrote that Galileo surpassed his father on the lute in grace and invention.)

More relevant to the issues discussed here are the passemezzi, romanesca con 4 parti, gagliarda, aria de sonetti & aria de capitolli in Vincenzo's hand. Many things can be deducted from them.

The notation is more elaborate then in the 1584 manuscript - specifying the use of the index finger and dampening of chords: valuable information for the learning lutenist and us. Some romanesca's are predecessors of the 1584 manuscript romanesca's with rhythmic and

harmonic variations. All are in the tonality c Dorian or C Ionian. They have no bar lines. The passemezzi, romanesca and gagliarda are grouped with airs for singing poetry.

Based on additions to 1568 Fronimo and the 1584 manuscript one can deduce that the 1584 Libro d'Intavolature di liuto could be covering a period from 1568 till 1591.

Vincenzo Galilei 1581: "The song was performed with care for the meaning of the ideas of the text: which was designed to express the affections that the author wanted to signify with the words."

The Intermezzi²¹ - an Ancient Greek music festival

In 1579 Vincenzo Galilei composed a monodic madrigal for a Medici wedding, it was sung by Giulio Caccini to an accompaniment of viols. *Qual miracolo, Amore* is incorporated in *1584 Fronimo* and was a great success.

Giovanni Bardi was asked to contribute to the festivities of a Medici wedding in 1589. He set out the subject matter and programme - which in fact was realising Galilei's ambition: recreating an Ancient Greek music festival.

Members of the Camerata - a name coined by Caccini to commemorate the camaraderie of its participants - came up with Intermezzi. Writers Bardi, Strozzi and Rinuccini delivered texts; composers Bardi, Peri, and Caccini wrote the music.

One composers name is remarkably missing: that of comrade Vincenzo Galilei. Why?

Vincenzo's model was the culmination of a long refined tradition of epic poetry declamation. He had the reputation of using archaic passages and harsh dissonants: not the primary features one would look for in wedding music.

His experiments were designed for one performer without a stage for a small audience.

A presupposition: – this way of singing poetry was outdated right on the spot. New possibilities were tested by his fellow composers, inspired by Vincenzo's studies which opened a complete new spectrum of options. The new directions were funest for the sophisticated art of declamation of accompanied poetry. Opera killed the poetry star. No Ariosto or Tasso stood up in the 17th century: everything was changed. This doesn't mean that no more ottava rima were made, but the heyday was over.

Vincenzo's Camerata comrades immediately moved on. Nowadays Vincenzo is credited for being co-inventor of the recitative. Co-inventor Guilio Caccini wrote with respect about Galilei, but he did not mention Vincenzo when he documented the invention of the recitative.²²

Recitative was part of the next step, the step stone was monody and clear text declamation. Monody and clear text declamation are found in Vincenzo's artistic legacy and there is no such thing as a missing recitative link, as far as recitative is concerned. Vincenzo's experiments with sung ordinary speech remained between the borders of the romanesca and the like.

Vincenzo's polemic nature and his writings against Zarlino in 1587 were harsh. We cannot see him as a person with a sunny mood. Difference of insight was taken personally and he wasn't able to put it into perspective. He got stuck in the controversy.

For us it resulted in eleven theoretical texts from the last decade of his life, with many specifications how Ancient Greek music was to be implemented in the modern. The 1581 Dialogue and these eleven texts bridge concepts to crystal-clear rules. It is a pity that his late writings didn't reach collective consciousness.

In 1582 Vincenzo wrote to the Duke of Mantua that he liked to see his speculations corroborated by a practical art. In 1589 he wrote about the Camerata as something of the past. Something must have gone seriously wrong.

The Intermezzi of 1589 for the Medici wedding were a result of many working together; all of these were talented man with strong opinions. Vincenzo's vision and strong character had made it impossible to strive for a common goal.

Vincenzo Galilei 1581: "And seldom if ever was an instrument heard without a voice ."

Recitative

Fronimo 1584 is dedicated to Jacopo Corsi. He ran a salon like the Camerata. His star protégé was singer and composer Jacopo Peri. He and Corsi wrote the very first opera Dafne in 1597 – Vincenzo did not live to see and hear this, he died in 1591.

Peri wrote a clear description of the recitative in the preface of his opera Euridice.²³ Ideas of Galilei and Mei appear in this account such as "in Ancient tragedies actors sung all words but the melody was free of regular rhythm".

In the Romanesca undecima Galilei elaborated irregular rhythm which kept a pulse:

$$\left(\ \frac{3}{8} + \frac{3}{8} \ \big| \ \frac{3}{4} \right)^{4} \ \big| \ \left(\ \frac{3}{8} + \frac{3}{8} \ \big| \ \frac{3}{4} \right)^{4} \ \big| \ \left(\ \frac{3}{8} + \frac{3}{8} \ \big| \ \frac{3}{4} \right)^{2}$$

Whereas Peri stunned and convinced with his inventive recitatives by abandoning the beat of the measure at all.

The music of Vincenzo's experiments is lost and there is no record of his presence at Corsi's meetings. In modern literature his concrete contributions to the creation of the recitative are not precise known. But it is possible to separate it from the well documented artistic innovations Peri can be credited for.

Vincenzo's principles were: a narrow range of the voice, in a register suited to the voice and the text, slow metres are apt for lament, intermediate for tranquil speech and high metres for excitement, only those rules to counterpoint ought to be applied that serve to provide an accompaniment to the voice. Peri followed these precepts of Vincenzo but what is special about his recitative is that it was inherently without measure: free of metronomic recurrence and metre. ²⁴

Vincenzo Galilei 1581: "Ancient musicians were not accustomed to beat the measure."

Doni

Our single source for Vincenzo's experiments in the field of music is historian Giovanni Doni, who corresponded about it with Pietro, son of Giovanni Bardi in the early 17th century.²⁵

Doni was on a mission the restore the custom of reciting epic poems & and in vain he fought against its decline while opera flourished.²⁶ He approached musical settings in the first place as literature and was preoccupied with subtle and clear text expression.

In Doni's doctrine the just invented *stile recitativo* was not appropriate for the theatre, but more suitable for recitation of heroic poetry. He set out requirements like: the solo performer should sing many strophes of ottava rima on the same bass, to some extent he can vary the main aria as the words require.

For accompaniment he suggested to compose not one voice with a simple basso continuo, but the instrumental voices of a greater ensemble. The singer was accustomed not to follow any beat but with several instruments he would be obliged to follow the metre.

Pietro Bardi wrote that Vincenzo sang with a *corpo di viole*. This ensemble was in well-tempered tuning. Galileo's experiment apparently created some confusion, for a certain roughness and tan overdose of antiquity was felt. Undoubtedly, it was generally liked, although jealous persons were not lacking, who, green with envy, at first even laughed at him.

Vincenzo Galilei 1581: "Well played, it was very sweet to hear, like an ensemble of viols."

Corpo di viole

Why the experienced lutenist Vincenzo Galilei did not play lute at his own Camerata experiments?

Let us suppose the romanesca undecima con cento part is representative for the monodic accompaniment Vincenzo composed for these occasions, and let us zoom in on this particular fragment:

Part 96 measure 16:





The soprano part in this measure starts with the prolonged note g from the previous measure. That note is easy to sing or to sustain on a viol. On a lute however its sounding is a miracle. The passage is important dramatically because it is short of an end – finishing a line just before the final four parts 97 - 100 which are without canto. Bringing all four voices clearly and balanced on a lute is not impossible, but it is an Olympic achievement after an hour of playing.

We know that Vincenzo had set ten Furioso stanzas in a hurry – there was not much time for rehearsals. Writing out four voices for an ensemble restricts the need for intense rehearsal – professional players would even be able to sight read and play the parts instantly. This way the singer could fully concentrate on the vocals, applying what he had learned from the Zanni (the actors he studied for text expression).

It was the singer who leaded the tempi, the instrumental players followed. The high voice was doubled: brought by a vocalist and an instrument.

In the upcoming 17th century the role of the lute in musical life would be gradually replaced by the keyboard and ensembles of viols.

Vincenzo Galilei 1581: "Perhaps people searched for a stringed instrument that had the ability to hold notes for their full time value, which conscientious players wanted to do without repercussing them."

The theatre

Camerata meetings were frequently held not only at Bardi's palace but also in a room of the Palazo Strozzi.²⁷ The same room would serve occasionally as a stage for intermezzi - in between fillers that had evolved into the main act on special occasions. Epic and drama therefore took place at the same spot. But things were about to change. Florence's first theatre was built in the years 1583/84 – it opened in 1586 with a play written by Bardi.

Vincenzo considered music of the theatre as tuneful and cheerful, but to him it had a fatal flaw: it didn't nourish the soul, it was nothing but entertainment. He was harsh about it: this was for servants with their mental deficiencies, not appropriate for the noble.

Aristotle had learned him that the fruit of true music was purgation of the soul by giving relieve to the soul and by mitigating the passions. The false music of the theatre was for the common people.

By adapting this point of view Vincenzo had put himself permanently in the corner. The floor was for drama.

Perhaps Vincenzo excluded himself from participation because he considered it empty entertainment for the masses.

Vincenzo Galilei 1581: "The music of the theatre: tuneful and cheerful, pass a little time in recreation, deriving delight from the sense of hearing without otherwise thinking – owing to a mental deficiency – to nourish at the same time the soul with virtuous and honest instrumental playing and singing."

1589 the Chitarrone | Theorbo

Antonio Naldi was a lutenist employed at the Medici court. He was the inventor of the chitarrone, in later days called the theorbo, which made its debut and was to serve in the 1589 Intermezzi in the role of Ancient cithara.²⁸

The last part of Vincenzo's 1581 Dialogo consisted of a thorough study on Ancient and modern instruments and made a big contribution to these developments. Vincenzo may not have been on the list of instrumentalists, but he didn't write on water, he was all over the place.

Vincenzo had argued against the use of more than six courses in Fronimo, based on his experience with the quality of strings. But additions to the 1584 manuscripts show he changed his mind in later years: several pieces are written for a lute with seven strings, maybe an indication that the quality of the strings had improved.

Vincenzo Galilei 1581: "At that time neither the quantity nor the valour of the illustrious musicians of the past flourished any longer, and musical practice from that time on was dedicated to the theatre and little else."

Madrigals 1587

Music theory is usually of not much use to contemporary composers because it describes archaic rules of preceding generations. Vincenzo's work was an exception.

His theories on vocal music must be separated from his ideals on instrumental music. The complex, well-ordered art of counterpoint was admirably suited to pure instrumental music, to which it should be confined.

Vincenzo had turned against the vocal art of counterpoint, which he had mastered. Galilei was poor and had a family. He was married to Guilia Ammannati who had a terrible temper. She was prickly and quarrelsome and never tired of pointing out that she came from a very

noble family from which also came the famous cardinal Jacopo of Pavia and that they have to live accordingly in splendour.

Vincenzo had to make a living. One way could be exploiting the art he mastered: the art of counterpoint. In 1574 he had published his first book of madrigals – which might have been a profitable project. It was dedicated to Bianca Cappello – who married in 1579 and for which occasion Galilei composed his successful madrigal *Qual miracolo*, *Amore*.

In 1587 Vincenzo Galilei published a second book with madrigals written in *prima pratica*: full of the means he had mastered so thoroughly, dissected, mocked, disdained and against which he had fulminated passionately. The madrigals he published in 1587 do not meet the standards he had set out in previous years for vocal music. But they do comply with characteristics of polyphonic music which had brought him success and fame earlier in his live.

The honourable Vincenzo Galilei swallowed a lot of pride to be able to eat. Putting his money where his mouth was might left him with an empty pocket.

The voices of the romanesca undecima undergo diminutions, augmentations, inversions and additions, all usual characteristics of four part counterpoint writing - but the result is monody. The romanesca undecima shows us a Janus head.

Vincenzo Galilei 1581: "Great artists sometimes want to experiment to test the boundaries of their principles."

A colourful metaphor

The devotion of his son and first-class composer Michelangelo solely to instrumental music might have been motivated by the fresh playground it gave him: one without a voice telling him what to do. But when they asked Michelangelo to write a vocal composition he brought a telling tribute to everything his father had taught him.

In 1616 Michelangelo Galilei delivered a motet *Filiae Jerusalem* | *Daughters of Jerusalem* for three sopranos. It was a commission for an anthology ²⁹ compiled by the director of the Munich Jesuits, Georg Victorinus. The anthology presented new developments in the field of composing. The motet was dressed in the garland of *second practice*, as the new way of composing was called.

Did Michelangelo address the Artusi - Monteverdi dispute about the new practice?³⁰

Giovanni Artusi had assaulted Monteverdi's compositions wondering ironically how Claudio Monteverdi had preserved the chastity of the Daughters of Jerusalem (singing nuns) depicting them at the same time as painted whores.

The famous polemic recapitulated an older one, the Zarlino - Galilei debate about composing in which ways of composing, old and new, were attacked and defended. In his treatise on counterpoint Vincenzo had compared the function of consonances in music with colours in painting. The colourful new way of composing went to far for Zarlino ears going beyond what was decent. The dispute was followed by many.

The choice for three sopranos by Michelangelo could have been a salute to the legendary singing girls of Ferrara who had given a great impulse to the art of the seconda prattica.

Michelangelo's motet was a clear artistic statement and like Monteverdi he didn't theorize but showed his mastery.

Vincenzo Galilei paraphrasing Aristotle 1581: "We affirm that instrumental music is not for freeman but for servants and mechanical craftsman."

Instrumental features

The romanesca-bass was used as an aria formula for singing poetry and as a subject for instrumental variation. There is no watershed between vocal and instrumental music.

The *Romanesca undecima* has features that are typical for creating instrumental variations. On the lute timbres are put next to each other by playing the same passages on different strings.

Irregular arpeggiated textures, the so-called *style brisé were* developed in France. Wallace Rave described it features in 1972:

- o the avoidance of textural pattern and regularity in part writing
- o arpeggiated chord textures with irregular distribution of individual notes of the chord
- o ambiguous melodic lines
- o rhythmic displacement of notes within a melodic line
- o octave changes within melodic line
- o irregular phrase lengths

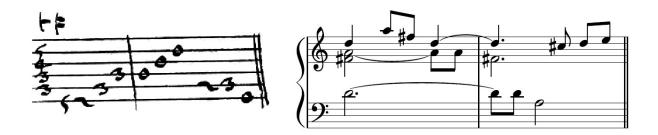
The broken style is at odds with the regularity of the romanesca scheme and is an ambiguous characteristic of the romanesca undecima con cento parti.

Part 80 opening measures | alternative positioning & broken style:



Choosing the eleventh key for a lengthy composition is practical because of the distribution of the function of the open strings, it is an idiomatic key of the lute. Open strings can be plucked and their sustaining sound is not depended of the left hand.

Part 18 final bars | alternative positioning & open strings:



Vincenzo's study of the Ancient solo instrumental practice gave way to a double-minded image: he concluded it didn't exist but in other passages he wrote that festivals with instrumental competitions were nothing but entertainment for simple minded servants.

Vincenzo Galilei 1581: "The rules should serve harmonic usage to express the ideas of soul by means of words with a suitable affection."

Library

Vincenzo was sent by Bardi on many travels to investigate sources for his study for the *1581 Dialogo*. In 1588 Vincenzo noted that his library contained 14.000 intabulated pieces. This amount is sometimes qualified as mythical – surpassing what is plausible.³¹ To do some math: Vincenzo was born in 1520, if he started at the age of fifteen he would have to intabulate five pieces a week.

When he would he done only this he could go out fishing lifelong six days a week, meanwhile contemplating how to impress with numbers, easy chords and the names of mostly classical ladies.

Compare these numbers to the work of Sarge Gerbode who started using the computer program Fronimo (named after Vincenzo's book) in the late 90's to encode lute music.

Gerbode's 8000 lute pieces processed in 30 years put Vincenzo's numbers in acceptable perspective.

Sarge Gerbode editions all use the same font and format, providing clarity and readability with a digital cleaned up copy of the original available together with modern French tablature. They include Vincenzo's 1584 Intavolatura.

Although Vincenzo's Library is gone forever but it is a great solace that centuries later a digital library is compiled with tools bearing Fronimo's label: and actually Gerbode's books probably partly overlap the lost treasure.

Composers Vincenzo studied were: Josquin des Prez, Jean Mouton, Nicolas Gombert, Arian Willaert, Cipriano de Rore, Giovanni Palestrina, Allessandro Striggio, Orlando di Lasso, Giaches de Wert, Annibale Padovano, Claudio Merulo, Constanzo Porta, Pietro Luinej, Gioseffo Guami, Claudio da Coreggio, and Luzzasco Luzzaschi and others. So Galilei had a deep understanding of counterpoint and knowledge of its history.

Putting together a library gave Vincenzo an excellent view on what was happening in the field of music. He must have had a clear picture of the rise of instrumental music. Probably noticed the major steps Andrea Gabrieli took. Harpsichordist Glen Wilson observed that Gabrieli's ricercare's are a quantum leap beyond previous efforts and he sees him as an ancestor of Bach's fugues.³²

Gabrieli was a master in the use of augmentation - magnifying the length of his themes up to four times. His subjects have character and personality, there is unity by singularity and his ricercares are clear instrumental music: going where no singer or choir is able to go.

In 1585 Gabrieli composed choruses for a revival of an Ancient Greek tragedy, staged at the opening of the Teatro Olimpico in Vicenza.

Galilei and Gabrieli: their paths may have likely crossed. Both composed a cycle of ricercares going through all degrees of the chromatic scale. Vincenzo's lifelong friend Claudio Merulo, (they studied together with Zarlino³³ in Venice) was held the position of first organist at the San Marco that housed two organs – Gabrieli was second organist.

Vincenzo Galilei 1581: "I have several very Ancient books that I have with me."

Ricercares

Galilei published three sets of ricercares; in his first book *1563 Intavolature de Lauto* and in his Fronimo editions 1568 & 1584.

The index of 1563 Intavolature does not specify who composed the six included ricercares, but in the preface Galilei states that he has added some ricercares by Francesco da Milano. On stylistic grounds it is more likely he composed them himself, the compositions lack those instrumental features Francesco would have applied. It seems a musical pastiche and it depends more on loosely quoting than on displaying a sharp understanding of specific compositional principles.

We do not know Vincenzo's motives for handling in this ambiguous way: attributing it in the preface but not subscribing it in the index - are unknown but could be seen as manipulative marketing. Francesco's pieces were in high demand.

The original compositions to which Vincenzo did put his name were all with poetry set to music. Words were by Dante, Petrarch and Ariosto. He demonstrated a profound love for poetry.

Peter Argondizza has recently described the changes between Fronimo 1568 and Fronimo 1584 as a Foucauldian (meaning abrupt) shift.³⁴ This is in dispute with Vincenzo's gradual development after his study with Zarlino and conversations with Mei, Bardi and members of the Camerata which ultimately led to the Dialogo of 1581 and in which the extension from 8 to 12 modes is described.

Bestseller Fronimo is about how to intabulate. Vincenzo's library contained 14.000 *intabulated* pieces: they had vocal originals.

The short homophonic ricercares in Fronimo are meant as preludes for vocal or intabulated music - they do not stand alone as independent compositions. Their subjects do not show the individuality of its subjects nor the structures as achieved by Gabrieli or others in the frontline of purely instrumental music. In those days Vincenzo's interest was focused always on vocal music.

Vincenzo's library didn't survive – but apart from the 1584 manuscript there was another handwritten libro that did: one with an exceptional and monumental ricercare, squeezed in between madrigals by Constanzo Porta and Pietro Luinej. ³⁵ It is not unlikely that precise this ricercare is the reason that the book was preserved, kept by the unknown composer.

The exceptional ricercare is a typical instrumental elaboration. It is an attempt to surpass the elaboration on a subject and development by Andrea Gabrieli, it has 104 bars and ingenious counterpoint. It is written in a different hand. Likely candidates for subscription are Vincenzo's sons and outstanding lutenists Galileo and Michelangelo, and the son of Galileo: the talented poet Vincenzo Galilei.

According to Bardi it suits the player devising fugues, double counterpoints or other inventions, when voices sometimes are absent to make the parts move so as not to bore his listeners.

Vincenzo Galilei 1589/91: "Only those rules of counterpoint ought to be applied that serve to provide an accompaniment to the voice, not those that would produce independent parts to compete with it."

Counterpoint treatises

The counterpoint treatises from Vincenzo's late years 1589 – 1591 are an effort to allow more room for *text*-expression. Tellingly, these manuscripts were handed out to Viviani around 1650 by the son of Bardi.

The human voice has limitations and instrumental music tends to escape from those boundaries.

Vincenzo did not intend to theorize about instrumental counterpoint. He hoped that the famous composer and also good friend Allessandro Striggio – whom we know also as the librettist of Monteverdi's Orfeo- would someday write an treatise on this aspect of composition because he was such a master of it.

Vincenzo Galilei 1589 - 1591: "But apart from the expert craftiness of instrumental music and of such activities, those who use this artful music to serve the spectacles do not strive for any virtuous goal but to give pleasure to listeners, and this pleasure is procured in a vile manner."

Bardi's idea

In 1578 Giovanni Bardi wrote a lengthy letter to the singer Guilio Caccini, who also played lute. The text is an eloquent prequel of Vincenzo's 1581 Dialogue. In his discussion of instruments Bardi remarked:

"I thought of revealing to you an idea that has often occurred to me. I would like you, from whom for various reasons a singular music would come, to adapt some beautiful air so that it can be played on a fitting instrument, an air with a grand and magnificent character, like that composed by the philosopher Memphis, to the sound of which, without speaking a word, by movements of his person, Socrates would present all the precepts of Pythagorean philosophy."

Giovanni Bardi urged Caccini: "not letting yourself be led astray by counterpoint like a poor swimmer who lets himself be carried away by the current, not reaching the other side of the river as he intended."³⁷

Giovanni Bardi 1583: "These verses will be best that have the best rhythm and the best sound. Consequently, they will be the most musical, hence the best singable."

Vocal features

How does the *romanesca undecima con cento parti* fit this picture? Are there features that can be related to singing or text?

In 1591 Vincenzo wrote two essays about melodic composition and accompaniment. The secret of Greek art was limitation of means. The melody had to be constructed out of four notes but these four notes were not apt for expressing all affections. A voice can reach eight to ten notes without straining. Looking for expression a musician will use these according to the affection he wants to represent.

A tranquil soul will seek for the middle notes, but to an excited spirit the high notes will appeal, to a lamenting one the low. Vincenzo noticed that the standard soprano melody of the romanesca does not extend the compass of a sixth.

The part sung was called *aria* or *modo* and it was the soprano who executed it. Vincenzo mentioned the formula of terza rima and ottava rima as being apt for soprano melodies.

Popular modern songs served as a model for the qualities he appreciated in Greek art: their text-declamation was worth of imitation because it approached common speech. Their homophonic idiom embodied this ideal. Their simple melodic style demanded simple harmonisations: triads in root position.

Counterpoint had developed into a complex well-ordered art and achieved a state of ultimate perfection. This art had to stay with purely instrumental music.

Whereas vocal music had to return to the simple style of airs like the romanesca and passemezzo. Versus sung to the lute were "l'aria commune della terza rime, e quella della romanesca". The latter tune was used to sing *ottave rime*.

In Vincenzo's late essays romanesca's are theoretically connected with singing – not with the technique of instrumental variation.

The *Romanesca undecima con cento parti* meets the mentioned vocal characteristics. Facing the real problem of how a return to Ancient monody was to be effected, he puts in practice that four principal notes should construct the melody.

The melody of the romanesca undecima has four constructive notes $\mathbf{d} - \mathbf{e} - \mathbf{fis} - \mathbf{g}$.

Unstrained a singer can reach ten notes: the soprano melody in the romanesca undecima should not compass D ' - A''.

Vincenzo Galilei 1581: "One is not entirely satisfied to hear an air played on an instrument without the song, or solo singing without hearing an instrument playing the air."

Ottava rima accompaniment

In 1551 Girolamo Muzio described in his treatise Dell'arte poetica how *ottava rima* were performed: a pair of verse lines is song with accompaniment and ends with a cadence, the singer pauses and a short instrumental episode is played. The cadence prevents the audience from making faces, expressing dissatisfaction with the performance.³⁸

Each part of the *romanesca undecima con cento parti* has the structure that allows to perform two hendecasyllabic (undecima syllables) lines and a short interlude. This is a simple explanatory model for the three groups of every part: group one and two have verse lines, group three is the instrumental bridge: a florid reprisa where the singer can take a rest that prevents him from tiring.

It also explains why four parts are merged to one affect and closed by three barlines: it completes one stanza of the ottava rima.

How do verse lines fit the melody? Fitting meant following the rhythms and accents of the poetry and avoiding florid passages. The composer must move the listener to the passions expressed by the text.

Vincenzo Galilei 1581: "There are not lacking examples of those who first composed the notes according to their fancy and afterwards adapted words to their taste."

Fitting lines - the Barbaric and the Rigid

The tradition of epic poetry declamation ended around 1600 and poorly documented it sank into oblivion.

There was a popular solution for accompanying epic poetry in an easy manner. A survived stock melody and a few chord changes noted by Cosimo Bottegari show how this was done.³⁹

Some historians have clung to Bottegari's model. ⁴⁰ This blurs the image: Bottegari's templates, straight from the toolbox of the troubadours, are terrain of the improvising amateur with limited technical ability, tight theoretical and narrow historical knowledge, and restricted artistic imagination. It is an old song: this doesn't mean they didn't have great success, forms had been used that had proven to be of great effectiveness. But for true enthusiasts this kind of superficial performance with its generic approach was barbaric.

Besides a recipe for making accent mistakes there is another fatal flow that determines the fate of these models: to communicate profound and generic emotions effectively one has to be specific. The ambition and strategy to express the epic in the short run will strand soon to a critical eye as the barbaric tends to be boring.

There was an opposite solution, with strict rules striving for ultimate control. In Paris, in a parallel universe, not Bardi but Baïf (the music of chance is language-sensitive) had founded the Académie de Poésie et de Musique. Striving against barbarity and for a revival of Ancient

Greek ethos they came up with something new: La musique mesurée à l'antique. The *Professionels*: formed a group of composers and singers that would set longer syllables to longer note values, and shorter syllables to shorter, in a homophonic texture. Doing so they sacrificed the metric.

Bardi and Baïf were not connected, but the specific, rigid rules of the Musique mesurée probably would have appealed to Girolamo Mei: the house historian of the Camerata (and Vincenzo's vital entrance to Ancient Greek resources). But Vincenzo Galilei with his free mind was a far better artist as to follow this kind of oxygen poor moulds.

There is common ground in the Barbaric and the Rigid: the one lacks knowledge as the other abounds in knowledge, both came to a poor result as if the bones stick out of the flesh.

As a gifted artist Vincenzo Galilei sought and found a better connection: the *refined tradition* of epic poetry declamation.

Vincenzo Galilei 1581: "After studying carefully the poem, what tonos and harmonia and which air it would suit they sang it in an improvised manner to the kithara."

Keep the verse free

Giovanni Bardi's 1578 letter to the singer Guilio Caccini contains some interesting practical instructions:

"Sing music, while expressing as well as you can the long and the short and the rhythm of the entire verse. If you wish to make florid embellishments for the pleasure of listeners, for example, in a line of eleven syllables — our heroic — you will do it on the sixth or tenth syllable, which are almost always long. Nor should it seem to you too little if from one stanza of eight lines you draw sixteen charming, varied, delightful florid, passages, in this way you will keep the verse free and beautiful, without doing it any violence."

Dividing ottava rima lines with a comma by means of passages set the verse musically free.

Vincenzo Galilei 1581: "The Ancient Greek not only sang the same words and the same air at the same time with the same pitches but also the same meter and rhythm."

Accents

Italian hendecasyllables have irregular accents.⁴¹ An accented syllable must coincide with a metric accent and unaccented syllables do not have to. Statistically most accents fall on the fourth, sixth and compulsory tenth syllable.

Vincenzo's ambiguous metrical design has flexibility and keeps the driving force of the impulse of the meter.

His $(3/8 + 3/8 | 3/4)^4$ for one line has four accents that match in 3/8 and 3/4:

3/8:	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
3/4:	1		2		3		1		2		3		1		2		3		1		2		3	

There are four waves that could break as irregular as a hendecasyllable line.

The matching metrical accents could function as beacons for the singer. This is not strict mathematics: it is a smart design that allows for different choices.

His plan overcomes defects of the Barbaric and the Rigid, there is wisdom in the system.

Properties of the hendecasyllable simply explain the ambivalent rhythm of the *Romanesca* undecima con cento parti.

Vincenzo Galilei 1581: "I will content myself to show where and from who you may learn without much effort or trouble, and with the greatest joy how to do it."

How it was done

Vincenzo wrote that it was done in the same way the orators Cicero and Demosthenes expressed affections.

If modern composers want to understand how orators worked they have to go to all sorts of plays and observe the Zanni (derived from the name Giovanni, a nickname for a character type of Commedia dell'arte, in Galilei's time Zanni applied to all actors who performed all sorts off plays⁴²), in what manner and at what pitch, volume, accents and gestures, and tempi they speak and pay attention to the different characters.

From these characteristics, observed with attention an diligently examined, they could derive the appropriate expression to any idea.

Vincenzo Galilei 1581: "From these characteristics they could take the norm of what suits the expression of any other idea that might come to hand."

Equations

The mathematician Giambattista Benedetti (1530 - 1590) formulated a law of motion which is sometimes unjustly described to Galileo Galilei, the son and physician. It is thought that Galileo derived his initial theory of the speed of a freely falling body after reading Benedetti's works.

A river is a free falling body.

Benedetti earned a title that sounded as music to Galileo's ears: *Court Mathematician and Philosopher*. When Galileo in 1610 became famous overnight, he was in the position of setting requirements & insisted on getting this long-wanted title.

Benedetti was one of the first to embrace and defend Copernicus – and being a specialist he knew what he was talking about. He had other preoccupations too: he was interested in music theory and corresponded about with Cipriano de Rore on this subject. In 1581 he published some of these letters.

In 1581 Vincenzo published his Dialogo. It contained a heliocentric metaphor: in a laconically way he stated that planets orbit the sun, just as intervals do the tonic. (He was not the only one with such thoughts. A similar laconically demonstrated acceptance of Copernicus's theory can be found in the essay *L'Apologie de Raymond Sebond* written by his contemporary Michel de Montaigne.)

Giovanni Zarlino bought one of the early copies of Copernicus' *Revolutionibus*. Zarlino's interest in Copernicus was limited, likely connected with the coming calendar reform of 1582. The copy which could have gone through Vincenzo's hands in 1563 during his studies, does not show annotations.

It was a subject that caught Bardi's attention to, in his 1586 and 1589 Intermezzi choruses impersonated planets and moved in symbolic geocentric circles.

We know Girolamo Mei and Vincenzo Galilei discussed the relationship between planetary movements and those of the chorus in 1581.

It seems therefore likely it was Giambattista Benedetti who inspired Vincenzo to come up with his remarkable heliocentric equation.

Other remarkable equations can be made.

Vincenzo Galilei 1581: "Every musical interval in the octave sees itself as if in a mirror, like the planets do in the sun."

Keep it simple

In 1632 Galileo published *Dialogue Concerning the Two Chief World Systems*. One of its characters Simplicio is defender of the geocentric view and is portrayed as a simpleton.

Galileo states in the preface of his book that Simplicio is named after the famous Aristotelian philosopher Simplicius (and that he did not mean to represent Pope Urban VIII whose words he layed in Simplicio's mouth. Galileo would find out that putting words into the mouth of a simpleton can cause critical problems).

The historical Simplicius coined a famous river metaphor: panta rhei | everything flows to summarize the concept of the philosophy of Heraclitus: everything changes.

Keeping things simple was a crucial devise of Vincenzo Galilei's 1581 Dialogo. In the positive and negative sense – dialectics were his second nature. To quote one example: "Simpletons often believe that what they read in a book in whatever discipline – owing to their limited

experience – is not found in any other book, whereas it is written in many books thousands of years earlier."

The word *semplici* is used 96 times in Vincenzo's Dialogo: providing enough lines to upholster 96 Romanesca parts asking for words.⁴³ That is of course not something Vincenzo would have in mind. That's just the music of chance singing along.

Using those quotes would be an illustration of a philosophical law of motion connecting concepts like a flowing river: it is difficult to follow the bed of the river long after the river has gone.

So, if the *romanesca undecima con cento parti* had to be texted, which lines could Vincenzo had in mind for the romanesca undecima, what verses qualify, which words can be layed in the mouth?

Vincenzo Galilei 1581: "Every book we have in any important discipline was first composed and written by the Ancient Greek."

Holy week

Concepts and styles can be preserved by the process of imitation. Suppose all music of Jacopo Peri had vanished: we could have a clear picture of his recitatives because we still would have Claudio Monteverdi's Orpheo. In that hypothetical case it wouldn't be possible to separate imitation from emulation, but we can firmly conclude there is a lot of Peri in Monteverdi.

We could apply this mechanism to the monodic music for voice and basso continuo Emilio de'Cavalieri wrote in 1599 for the Holy Week⁴⁴: did Cavalieri imitate parts of Vincenzo's experimental music in his setting of texts from the book of Lamentations?

Giovanni Doni, the historian on a mission, made a distinction between secular and sacred. Unrhymed verses, more substantial and more free than ottava rima, were best suited to the sacred.

The lamentations of Jeremiah and The Responses for Holy Week were not set in ottava rima & therefore are not likely to be connected to the romanesca undecima.

Vincenzo Galilei 1581: "Men had beards before they knew how to sing well, for in those primitive times they needed to spend so much time learning to sing that the boyish voices were lost before they could be enjoyed."

A cardinal banquet

The long tradition of declamation of epic poetry is scarcely documented, but there are testimonials. Accompanying recited poetry was popular at literary academies and cardinal

dinners in the years 1530 - 1540 in Rome. For example Giovanni Mauro describes in a letter from 1531 a cardinal banquet where the main topic was poetry and poetics.⁴⁵

The important grammatician Claudio Tolomei was present. Ancient books were thoroughly studied by this circle – Tolomei held twice a week discussions about the roman architect Vitruvius and edited his keywork *De Architectura*.

Vitruvius is relevant in our context: his book contains clear passages about the music theory of Aristoxenus, the theorist Vincenzo greatly admired.

At this specific banquet the poet Marco di Lodi sang an extract of Dante's Inferno canto III (entering the gate of Hell, with the famous line: "abandon hope all ye who enter here") accompanied by Pietro Polo on the lute.

From letters from this decade and milieu we can deduce that they set the same high standards of modern concert practice were equally applicable then. Values as: spontaneity, effortless performance and the illusion of improvisation – made possible by talent and long, hard endless study and practise – were discussed.

The Venetian Girolamo Ruscelli for instants wrote in 1559 a treatise on composing verses in the Italian language. He stated that poetry was almost always sung on such occasions.

Vincenzo Galilei's early books testify in his selection of composers of his close ties with the Roman and Venetian cultural elite. He seems to know all the principal composers in both towns.

According to modern history the origin of opera was influenced by many genres. As far as Vincenzo Galilei's theoretical and musical contributions are involved the tradition of reciting epic poetry was one of the foremost influences.

Vincenzo Galilei 1589 - 1591: "Aristoxenus: a most eminent musician and philosopher."

Go to hell

As we learned, Marco di Lodi sang about entering the gate of hell.

Vincenzo Galilei 's experiment with the Dante story of count Ugolino is situated in hell.

Vincenzo's 1584 manuscript includes a piece titled Viva Don Giovanni: that seems to refers to an very early version of the play about a rake who is dragged to hell by the statue of one of his victims. Galilei, might have had a keen eye for the potential of this story.

Giovanni Bardi's intermezzi of 1586 and 1589 had scenes located in hell.

In Monteverdi's 1607 opera Orfeo descents into the underworld to pick up Euridice.

So apparently Vincenzo was not the only who liked the story of how to go to hell. Hell was the place to be.

Vincenzo Galilei 1581: "The song that the Ancient musician recited was most of the time an entire history, fable, or some heroic deed. He often took an hour or two to perform it."

Hell's size

One can always count on a Galilei for a grand scale view.

In 1588 Vincenzo's son Galileo became instructor in perspective at the art academy in Florence.⁴⁶ He was appointed after successfully determined shape, location and accurate size of Hell, based on Dante's description of the Inferno. Soon after he got the job he realised he made a mistake: he had scaled the size of Florence's Dome to a geographic level, without taking into account that things change when they are enlarged.

Galileo originally assumed that the width and thickness of the roof could both be scaled up in the same way. Later he realised that the thickness would have to increase faster than the width to maintain strength. He calculated that the roof of hell would have to be 600 kilometres thick.⁴⁷ But grand scale constructions need stronger support.

The larger the animal the sturdier the bones.

When you listen to a lute concert or play from an anthology there is a constant: lute pieces are short. Compared to the romanesca undecima even relatively long pieces are short. The romanesca undecima is exceptional long and shines on a different scale – taking more than an hour to perform.

Does it need dinosaur Diplodocus bones or is there stronger material that carries its weight?

Text has the potential to bind together many separate sections. Words are the Trias skeleton that bind parts together, but it is not the romanesca's skeleton of triads that do the trick. The romanesca undecima blossoms in a declarant role for yowels and consonants.

On its own, without a voice the *romanesca undecima con cento parti* might seems boring because of a functional subordination: giving food to mock over easy chords. That appearance is a pitfall. Vincenzo masterly succeeded to show how to build up a story and not to be boring.

Staring only at the simplicity of used means ignores the effectivity, depth and meaningful complexities that Vincenzo achieved. He made an appeal to the listener to have a grand scale view.

If we presume that Vincenzo documented with the *romanesca undecima con cento parti* his experiments with accompanying epic poetry than a consequence is that it is incomplete without it.

Giovanni Bardi 1583: "These verses will be best that have the best rhythm and the best sound. Consequently, they will be the most musical, hence the best singable."

Cycles

Salvadore di Cataldo set to music the first line of forty-six cantos from Ariosto's Orlando Furioso in 1555. Jacquet de Berchem set 91 Furioso stanzas in 1561. Although they were marginalized by history these madrigalists stood in their days the front row of artistic developments.

In the years 1560 - 1570 Jacomo Gorzanis published some instrumental lute music: passemezzo and saltarelli going through 24 well-tempered modes. It's well worth of making a comparison with Vincenzo's output. One among the notable features is the exploration of the different registers high up the neck of the lute.

Jacques de Wert, student and successor of Cipriano de Rore, wrote long madrigals with texts from Orlando Furioso stanzas. He selected the most tense scenes. In his madrigals De Wert made use of the romanesca scheme. Claudio Monteverdi studied these intensely and copied and quoted large parts in his madrigals. De wert was criticized for using harsh dissonance and archaic passages, but this may have attracted Monteverdi's interest. 48

Another composer praised who was praised by Vincenzo in many respects was Luzzasco Luzzaschi. He too wrote a madrigal cycle with poetry from the Divine Comedy.

Out of sight for us, but the curious scribe and interested fisherman and traveller Vincenzo Galilei fulfilling his weekly duties had clear views.

Vincenzo Galilei 1581: "One is not entirely satisfied hearing solo singing without an instrument playing the air. In this way the actor was best heard by those around him and his voice was tired the least. The kitharist helped the singer to maintain pitch by means of his well-tempered instrument."

Criterium

Cipriano De Rore, who was called the originator of the Seconda prattica by the brother of Claudio Monteverdi⁴⁹, set many Furioso stanzas to music. His text selections display a consistent preference. He choose only a few persons to depict and preselected in setting contemplative aphorisms.

The selected lines express deep felt emotions, honest and sincere but there is an implicit awareness of a comforting setting providing consolation. Just as in The Decameron the teller dwells and attests of his heartbroken *loneliness* before lending his ear to aristocratic *friends*: there might be wine at hand and despite all the misery some kind of cosiness is lurking around the corner.

The text of Orlando Furioso embarks a broad spectrum of drama. In music De Rore filtered Petrarchan sighs and suffering. Both contrast highly with Vincenzo's choices.

Not known is which text Vincenzo selected from Jeremiah - also called the weeping prophet - but since they utter an uniform register one can accept it was a passage belonging to the non–comical genre: dealing with terrible misery and the horrific consequences.

We know from Pietro Bardi's report which canto Vincenzo selected from the Divine Comedy. In canto 33 Dante describes how Ugolino is entrapped in ice and gnaws violently at the head of another sinner, Archbishop Ruggieri.

Ugolino's gnawing of Ruggieri's head is not food for contemplative aphorisms incorporated in stanzas. There is no hidden wine at hand around here. This is raw and confrontational – potentially crossing the boundaries of the perfect modest Courtier, the ideal that so much set the standard in 16th century in the book Il Cortegiano 1538 by Baldassare Castiglione.

Vincenzo imitating the Zanni in volume, accents and gestures and impersonating the personae of this canto meant taking a huge risk of entering the ridicule – this might explain why some reacted with laughter but also envied him. So Vincenzo, putting his money where his mouth was, shifting in his experiments the boundaries of the refined tradition of declamation of epic poetry, and succeeded in the end being considered a genius by Pietro di Bardi in 1634.

Dante's Divine stanzas are terza rimes – a connection between this poetry and the romanesca undecima is therefore not likely. But from Vincenzo's choice of setting the canto of count Ugolino and passages by Jeremiah we can deduce a selection criterium: complicated high tension scenes with extreme suffering set in the finest lines.

The Furioso is famous for countless bodies cut to pieces. We know that Vincenzo praised De Rore above all for realising the Ancient Greek ideals in modern music – but at the same time he choose horror scenes. How to explain this text selection difference: simple and immobile versus complex and tense?

Full of action there is an ironic twist to Ugolino's frozen scenery since the main characters are captured in ice.

Vincenzo was proud of his *nobile* title but vanity does not characterise his art. He replaced self-centred thoughts vocalised by multiple voices in polyphonic fabric – the music of the nobility in those days- by a single voice in monodic tissue committed to everyone's individual fate.

Vincenzo Galilei 1589 - 1591: "The Ancient used to proceed in playing and singing by conjunct steps rather than by separate leaps and to seek out few notes."

Purgation

Why did he choose the raw misery? Why are people motivated to experience awful scenes? The paradox of highlighting the misery is that in the end it makes you a better person.

This mechanism of purgation trough pity and fear is known as catharsis in the theatre. It was discussed during several meetings of the Academia degli Alterati in 1583. Giovanni Bardi and Giovanni Strozzi attended these sessions.

Inspired by these discussions Lorenzo Giacomini wrote an essay about purgation in 1586. By inducing pity and fear in the spectators they were purged of these emotions - even Girolamo Mei who had commented on this topic already in 1574 agrees with this.

So according to this theory pleasures compensate for the discomfort caused by the spectacle of pain. The pleasures are: learning of the represented actions, the marvellous show, the recognition, the beauty of the metaphors, the sweetness of the verse and music, the artfulness of the poet's plot trough digressions, recognition and reversals of fortune.

Vincenzo Galilei 1581: "Humans had lamented for many centuries of their miseries after which they began to produce works of letters and music."

A possible occasion for 10 Furioso stanzas

Pietro Bardi wrote: "Our Messer Vincenzo Galilei having to set to music, in a hurry, poetry that would possess an active character, also chose ten stanzas of Ludovici Ariosto (the author of Orlando Furioso), attracted by their sweetness of rhythm and sound."

There was a heated debate among literati who was the best poet: Ludovici Ariosto or Torquato Tasso. Giovanni Bardi contributed a lecture presented to the Academia degli Alterati on 24 February 1583.⁵⁰

The remark of Pietro Bardi mentions exactly the main opposite arguments: Francesco Patrizi who in his reaction to Bardi stated that Ariosto indulged in too much action (an active character), while Bardi had argued that the Furioso stanzas were superior because of the ease with which his verses may be sung.

Vincenzo had praised the sword of Orlando in his 1581 Dialogue as the mean to convince people of the superiority of monody.

The lecture of Bardi seems to have been a perfect opportunity to ask Galilei to demonstrate the validity and persuasiveness of this argument.

With it we might have a date for the first drafts of the *romanesca undecima con cento parti*.

Vincenzo Galilei 1581: "To persuade people of true music would take the sword of the Paladin Orlando."

Galileo Galilei

History shows Galileo Galilei had opinions on his own, nonetheless, his opinion about Ludovico Ariosto might have been influenced by his father.

Galileo developed a profound love for Orlando Furioso.⁵¹ Viviani recalled how Galileo in every lecture interweaved an appropriate citation from it by heart. The question of Giovanni Bardi who was best: Ludovico Ariosto or Torquato Tasso - kept him occupied. He made a comprehensive summary of the Furioso, wrote many marginal notes and accurately corrected hundreds printing errors in his copies.

After Galileo had died Viviani started collecting letters, manuscripts, books. Vincenzo Galilei's manuscripts are still largely found in this collection, now days in Florence's Library.

The collection contains as well Galileo's extensive library of epic poetry – of which he had expert knowledge and was consulted for by many. He owned old prints. Several old enough to have been previous owned by his father. They might contain relevant notes.

Vincenzo Galilei 1581: "They probably knew the poem by heart."

Canto 34

Was the romanesca undecima con cento parti intended to accompany singing?

From Vincenzo's selection of poetry from Dante we can deduce a criterium that he may have used to pick out of the 38,736 lines of the Furioso to select this a passage of 96 lines.

The finest words, high tension, extreme suffering. The most inspired part. Dante revisited. Italy lamented. The place to be, and end without and end, a visit to hell: Canto 34.

One can make a reasoned reconstruction of Vincenzo's experiments with declamation of epic poetry by fitting the first 24 stanzas of Canto 34 of Orlando Furioso to the romanesca undecima.

Ludovico Ariosto 1516 Canto 34: "O fierce and hungry harpies, that on blind

And erring Italy so full have fed!

Whom, for the scourge of Ancient sins designed,
Haply just Heaven to every board has sped.
Innocent children, pious mothers, pined
With hunger, die, and see their daily bread,
—The orphan's and the widow's scanty food—
Feed for a single feast that filthy brood."

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Conclusion

Several factors have contributed to the fact that the *romanesca undecima con cento parti* has not received the attention it deserves.

- 1 It was prepared for a publisher, but the manuscript didn't make it to receive an audience in print. The tablature is difficult to become and inaccessible to read.
- 2 The book is packed with original ideas which take an effort to see, understand and appreciate.
- 3 Modern reception history has reacted in general with misunderstanding and confusion. This can be attributed to shortcomings of his theoretical writings. These works are full of contradictions, complicated because of the many issues he takes up in his pioneer's work, that tends to be very conceptual. Concrete descriptions are buried in little known texts.

You may not expect from an artist to explain his work. Art stands alone – even in Vincenzo's exceptional case the artist and theorist are not the same, caution is advised.

Galilei loved to sing poetry, right from the start. The romanesca undecima has many characteristics fulfilling his prescriptions how Ancient Greek music was to be implemented in the modern. Vincenzo the composer understands his profession, Vincenzo the artist is refined, subtle and profound. Pure instrumental music didn't had his attention.

The manuscript's front dates 1584. The romanesca undecima was written down after the first part was noted. The proposition seems justified that Vincenzo came up with the idea to incorporate the accompaniment from his recent experiments in this book.

The time span between these events is short, but following chronology makes sense: 1583 Camerata experiment – 1584 documentation of the accompaniment.

This music asks for declamation - it blossoms besides a storyteller. We can make an attempt to reason which poetry could or would have fit the music.

Vincenzo Galilei 1591: "If someone reading this discourse of mine fears to drown traversing this river, suddenly become so wide and rapid, he should follow the example of the great Philoxenus and turn back to its origin, until I or others draws arches over these fundaments as I have cast, stretching across its banks a bridge spacious and capable of taking everyone."

The vase and the Judge

Back: Terracotta amphora ca. 490 B.C.E.

A judge guided by a wand assisting at a musical setting of epic poetry at a competition

Attributed to the Berlin Painter
The Metropolitan Museum of Art

Around 490 B.C.E. the Berlin painter decorated an amphora with a singer declaiming poetry at a competition. Clear fluent lines and the use of vibrant colour stand out. Vases like these were awarded as prizes at music festivals. The shape of the amphora is central to the marvellous effect, lively reviving again the scene.

Noble poets and musicians were allowed to dress like a king, with a suit of purple and a laurel crown. The singer holds a plectrum in his right hand which was used with great force to pluck the strings. Some belief the plectrum was made of ivory or the hoof of a goat. What the role of the fingers of the left hand was precisely is not clear, sources opt for muting or striking the strings, others for supporting the instrument. Vincenzo thought the fingers picked out a melody.

The vase has two ears which can be used to pick it up and turn its Janus head around. The backside shows a judge holding a wand.

The blossoming ground below his feet has the aspect of from the same stardust as the other orange speckles and freckles on the vase's black face.

Mostly classical ladies must have hung around. His magic stick reveals botanical interest, the split branch portrays dialectics.

The judge's mirroring two fingers make the victory sign in a galaxy far, far away, formed by the mottled terracotta surface. It is a snapshot of a Big Bang in a Dark Universe.

In his 1581 Dialogue Vincenzo wrote that when you put the right amount of water into vases & when you hit them with a stick, you could hear the same pitches that would come from the strings the Ancient Greek applied.

The terracotta amphora is a metaphor for the romanesca. It is filled with fresh water. Pour it out, drink it, become one with it. You hold the wand. Listen and judge.

Vincenzo Galilei 1581: "Now play."

Noten

- ¹ Dialogo della musica antica et della Moderna of Vincenzo Galilei: translation and commentary by Robert H. Herman Disseration 1973
- ² A short study on the twelve antiche and the twelve modern collection of dances in Vincenzo Galilei's Libro d'intavolatura di Liuto (1584) by Carin Zwilling 2016
- ³ Trascrizioni da un codice musicale di Vincenzo Galilel by Oscar Chilesotti 1905
- ⁴ La Camerata Fiorentina by Fabio Fano 1934
- ⁵ Vincenzo Galilei in Rome: His First Book of Lute Music and its Cultural Context by Howard Mayor Brown 1992
- ⁶ Photocopy of ms. (Anteriori di Galileo 6) in the Biblioteca centrale nazionale di Firenze. Commentary by Orlando Cristoforetti in Italian and English. Studio per edizione scelte 1992
- ⁷ Dialogue on Ancient and Modern Music by Vincenzo Galilei 1591|Translated, with Introduction and Notes by Claude V. Palisca 2003; page XIX footnote 6
- ⁸ The well-tempered lute: Tones I-IV Vincenzo Galilei by Žak Ozmo 2016 Hyperion Records CDA68017
- ⁹ Dialogue on Ancient and Modern Music by Vincenzo Galilei 1591 page 1 80
- ¹⁰The Science and Art of Rennaissance Music by James Haar 1998
- ¹¹ Heinrich Glareanus noted that there was no strict proportion between C and C with a vertical slash
- ¹² Vincenzo Galilei's 1572 Compendio contain random examples of proportional musical notation
- ¹³ The Reputation of Francesco da Milano (1497-1543) and the Ricercars in the Cavalcanti Lute Book by Victor Coelho 1996
- ¹⁴ Dialogue on Ancient and Modern Music by Vincenzo Galilei 1591|Translated, with Introduction and Notes by Claude V. Palisca 2003; page xxi The Dialogue reveals an author prone to self-contradictions
- ¹⁵ Roman author and architect It was upon this writings that Leonardo da Vinci based his Vitruvian Man.
- ¹⁶ Letters on ancient and modern music to Vincenzo Galilei and Giovanni Bardi; A study with annotated texts by Claude V. Palisca 1960
- ¹⁷ http://www.meyer-gitarre.de/gitarre/unterricht/improvisationsideen/romanesca/index.html
- ¹⁸ Orationi by Lorenzo Giacomini 1597 reprinted in 1729 | The Alterati of Florence by Claude V. Palisca
- ¹⁹ Vincenzo Galilei's manuscript Libro d'Intavolatura di Liuto (1584) An introductory study by Louis Gassner 1991
- ²⁰ Vincenzo Galilei's Arrangements for Voice and Lute by Claude V. Palisca 1969
- ²¹ On the Origin of the Chitaronne by Douglas Alton Smith 1979
- Le nuove musiche by Giulio Caccini 1602
- ²³ Aria Types in the Earliest Operas by Claude V. Palisca 2003
- ²⁴ Peri and the Theory of Recitative by Claude V. Palisca 1989 | Discorso intorno all'uso dell'enharmonio by Vincenzo Galilei 1590
- ²⁵ Singing Dante: The Literary Origins of Cinquecento Monody by Elena Abramov-Van Rijk 2017
- ²⁶ Giovanni Battista Doni and his Vision of Performing Poetry by Elena Abramov-Van Rijk 2015
- ²⁷ The Camerata Fiorentina: A Reappraisal by Claude V. Palisca 1972
- ²⁸ On the Origin of the Chitarrone by Douglas Alton Smith 1979
- ²⁹ Siren Coelestis by George Victorinus 1616
- ³⁰ The Artusi Monteverdi Controversy by Claude V. Palisca 1994
- ³¹A History of the Lute from Antiquity to the Renaissance by Douglas Alton Smith 2002 page 144 + Les deux editions de Fronimo (1568 et1584) et la place du luth dans la pensee musicale de Vincenzo Galilei by Philippe Canguilhem 1994 + The Reputation of Francesco da Milano (1497-1543) and the Ricercars in the "Cavalcanti Lute Book" by Victor Coelho 1996
- ³² A.Gabrieli: Keyboard Music by Glen Wlison CD Naxos 2010
- ³³ Music and mathematics: a case study in the history of science by Carla Bromberg & Ana Maria Alfonso-Goldfarb 2016
- 34 The Order of Things: A Reappraisal of Vincenzo Galilei's Fronimo Dialogues, 1568 and 1584 by Peter Argondizza
- ³⁵ Gal. 9 I, Anteriori. 9, Galilei Vincenzo (jun.). Musica Collezione galileiana della Biblioteca nazionale centrale, Firenze.
- ³⁶ The Florentine Camerata: Documentary Studies and Translations by Claude V. Palisca 1989
- ³⁷ Music and Ideas in the Sixteenth and Seventeenth Centuries by Claude V. Palisca 2006 | Theories of Monody and Dramatic Music page 112
- 38 Parlar cantando by Elena Abramov-Van Rijk 2009

- ³⁹ Il Libro di canto e liuto MS C 311 Biblioteca Estense Universitatia
- ⁴⁰ For example Singing Songs of Execution in Early Modern Italy by Una McIlvenna 2016
- ⁴¹ Ritmo e Modelli Ritmici by Pier Marco Bertinetto 1973
- ⁴² Dialogue on Ancient and Modern Music by Vincenzo Galilei 1591|Translated, with Introduction and Notes by Claude V. Palisca 2003; page 224 note 437
- 43 www.joostwitte.nl/M_Galilei/Simple_quotes_Vincenzo_Galilei_Dialogo_della_musica_et_antica_1581
- ⁴⁴ Musical Asides in the Diplomatic Correspondence of Emlio de' Cavalieri _ Studies in the Histroy of Italian Music and Music Theory by Claude V. Palisca 1994
- ⁴⁵ I musici convivi di Roma (1530-1540) e la dimensione sonora del banchetto nel Rinascimento by Philippe Canguilhem 2013
- ⁴⁶ Galileo Galilei: location, shape and size of Dante's Inferno by Paola Magnaghi-Delfino 2014
- $^{\rm 47}$ Galileo, Dante Alighieri, and how to calculate the dimensions of hell by Len Fisher 2016
- $^{\rm 48}$ Monteverdi and the End of the Renaissance by Gary Tomlinson 1987
- ⁴⁹ Scherzi Musicali Dichiarazione by Guilio Cesare Monteverdi 1607
- ⁵⁰ The Camerata Fiorentina: A Reappraisal by Claude V. Palisca 1972
- ⁵¹ Galileo's reading by Crystal Hall 2013
- ⁵² The Orlando Furioso Translated Into English Verse, from the Italian of Ludovico Ariosto, with Notes by. William Stewart Rose 1823

