

Jubal, Pythagoras and the Myth of the Origin of Music With some remarks concerning the illumination of Pit (It. 568)

Davide Daolmi

Università degli Studi di Milano
davide.daolmi@unimi.it

§ Alla fine del Trecento l'iconografia della Musica mostra una forma complessa basata sul mito del primo padre fondatore dell'arte musicale. La sua raffigurazione più sofisticata appare nella miniatura d'apertura di *Pit* (Parigi, Bibl. Nazionale, It. 568), uno dei più importanti manoscritti di Ars Nova italiana.

Nel riconsiderare la bibliografia esistente, la prima parte dell'articolo indaga il contesto culturale che ha prodotto la miniatura, per poi, nella seconda, ripercorrere l'intera storia del mito, la sua tradizione biblica (Iubal), il suo corrispondente pagano (Pitagora), il rapporto con il mito della *translatio studii* (le colonne della conoscenza), e la sua forma complessa adottata a partire dal XII secolo. Il modello iconografico fu concepito in Italia nel Trecento e la forma ormai matura assunta in *Pit* fu poi assorbita nell'iconografia di Santa Cecilia.

La ricostruzione delle stratificazioni del mito, oltre a chiarire come diverse tradizioni musicali si siano intrecciate, propone allo stesso tempo di anticipare a fine Trecento la realizzazione della miniatura di Pit per ricondurla alla bottega fiorentina di Silvestro dei Gherarducci.

§ At the end of the fourteenth century the iconography of Music shows a complex morphology based on the myth of the first founding father of the musical art. Its most sophisticated image appears in the opening illumination of *Pit* (Paris, Bibl. Nationale, It. 568), one of the most important manuscripts of the Italian Ars Nova.

After reviewing the existing bibliography, the first part of the article traces the cultural context that produced this illumination. The second part reconstructs the whole history of the myth of the origin of music, its biblical tradition (Jubal), its pagan equivalent (Pythagoras), their association with the myth of *translatio studii* (the pillars of knowledge), and its syncretic form adopted from the twelfth century onward. The iconographic model was conceived in fourteenth-century Italy, and the illumination of *Pit* is its most complete form; it was later assimilated into the iconography of Saint Cecilia.

The reconstruction of this stratification of myths aims to clarify how different musical traditions crossed each other, and at the same time proposes an earlier dating for the illumination of Pit (late fourteenth century) in connection with Silvestro dei Gherarducci's Florentine workshop.



Figura 1 – Paris, Bibliothèque Nationale, Italien 568, f. 17r.

AMONG the many unique features of manuscript *It. 568 (Pit)* of the Bibliothèque Nationale de France, one in particular stands out: a full-page miniature portraying Lady Music seated upon a throne (Fig. 1). The manuscript, usually dated around 1410, consists of 150 notated folios, and it is one of the most important sources for the Italian Ars Nova. It collects, among many fourteenth-century authors, almost all the works of Paolo da Firenze (†1436), a composer scarcely present in other collections (FALLOWS 2001).

Interest in the miniature stems from its exceptional nature: of all the depictions of the personification of music through the centuries, it is the most elaborate; it results from a complex synthesis of proto- and extra-Christian traditions that evolved within a highly intellectual cultural context. Discussions concerning this image have emerged across various areas of scholarship; I will place these previously independent paths of research in dialogue with one another and, through a systematic reconsideration of the bibliography, take stock of a subject that continues to offer points of interest.¹

In the first part of the article, by reviewing previous contributions to the study of the manuscript, I propose to revise the accepted dating of the illumination by one or two decades. The manuscript was certainly completed, as has been shown in previous scholarship, around 1410, but the iconographic model of the miniature refers to a stylistic context which, as I shall argue in the second part of the article, was particularly successful in the third quarter of the fourteenth century. By suggesting at least two phases of production for the codex, I propose to date the illumination before the year 1400, and to link the miniature to Silvestro dei Gherarducci's workshop.

The second part of the article explores extensively the iconography of the image and shows that it stems from a sophisticated combination of different traditions. The unusual depiction, first instantiated in Bartolomeo and Andrea de' Bartoli's *Canzone delle virtù* (pre-1349), embodies the syncretism between classical and biblical sources promoted in the twelfth century by Petrus Comestor and mediated through Petrus Riga's poem *Aurora*. Furthermore, I will demonstrate that from the fifteenth century this peculiar iconography would be conflated (and would merge) with the newer iconographic tradition of Saint Cecilia.

¹ A chronological list of bibliographical references is provided in the appendix in order to clarify the historiographical process of research on the subject, as well as the poor interaction between disciplines (an asterisk marks contributions explicitly focused on *Pit*). Numbers in brackets present throughout the article refer to Fig. 2. The transcription of documents and the reproduction of the images mentioned can be found on my webpage at <www.examenapium.it/568>. I wish to thank Bonnie Blackburn, Shane Butler, Chris Geekie, Eugenio Refini, Claudia Tardelli Terry, and Susan Weiss for their helpful suggestions.

I.

A codex, an image

The first to study the codex was Francois-Joseph Fétis (1827).² His contribution, much like others from the nineteenth century, was overlooked by RISM, *Census*, and *Grove*.³ Yet, in addition to providing correct chronological documentation, Fétis (1827, p. 113) states that *Pit* came to the Bibliothèque Royale – today the Bibliothèque Nationale de France – shortly before his article was written.

Gilbert Reaney, in his first contribution dedicated entirely to *Pit* (1960, p. 33), observed that the modern cover of the codex presented the insignia of Charles X (king between 1824 and 1830), thus dating the modern to those years. Nino Pirrotta (1961, note 55), linking the seal «AN» (on the first folio of the index) to the Assemblée Nationale, places the transfer of the work immediately after the French Revolution. It is indeed probable that the manuscript had been seized following the expropriations of books carried out in Italy by Napoleon, expropriations which, according to Léopold Delisle (1881, II, p. 34), included at least 1,500 manuscripts during the years 1796-1802 (the Assemblée Nationale ordered the seizure of ecclesiastical goods from the year 1789).⁴

Fétis recorded the volume as «535 du supplément [français]», one of the two old shelf-marks present on the manuscript. The other («n. 165») could be the temporary mark made before the modern binding.⁵ Following the new classification of the codices of the Bibliothèque, which began in 1860 (DELISLE 1881, II p. 331), the volume ultimately received the mark «Italien 568».

The meaning of the miniature proved rather unclear. The 1838 Marsand inventory reported only that the «old man with a thick beard» was Tubalcain, with no explanation of his connection with the representation of music.⁶ Some years later, roughly thirty poems from the manuscript were edited as part of Francesco Trucchi's *Poesie italiane inedite*, a four-volume collection that piqued the interest of Giosuè Carducci.⁷ In 1866, the poet borrowed the codex from the French government and wrote about it in his essay *Musica e poesia nel mondo elegante italiano del secolo XIV* (1870). There he dated the manuscript «to the first years of the fifteenth century», referring to the capture of Pisa (October 1406) alluded to in the madrigal *Godi Firenze* («even

² The article was later considered in KIESEWETTER 1829, pp. 9-10.

³ FISCHER 1972; CENSUS 1988, III, p. 25; IV, p. 463; D'AGOSTINO 2001.

⁴ The hypothesis found in NÁDAS (1986, p. 216; and 1989, p. 50), which suggests that the codex arrived in France via «the French branch of the Capponi bank» has not found further confirmation. See below, note 37.

⁵ WOLF (1904, p. 250, note 1) interprets it as «Bibl. royale 165 du supplément», but in the ms. there is nothing preceding the number and the subsequent words are illegible.

⁶ MARSAND 1838, II, p. 579; the new catalogue of Italian codices by MAZZATINTI (1888, I, p. 111) records only their titles.

⁷ TRUCCHI 1847, II, p. 142 (description of the codex) and II, pp. 154-173 (29 poems).

though in the majority of the poems ... both the language and style ... seem to belong to the fourteenth century»). He then described the miniature, proposed again the name of Tubalcain and suggested that the woman could be Saint Cecilia (CARDUCCI 1870, pp. 464-465).

Although in the following century Friedrich Ludwig (1903, p. 55 ff.) would devote valuable pages to the codex, Johannes Wolf (1904) was the first to provide an index of incipits.⁸ He also offered a detailed description of the image, proposing that the man hammering was Pythagoras. Moreover, Wolf noticed the columns and for the first time provided a reading of the epigraphs:

... the first [column] contains the words *tonus, dictonus, semitonus, semidictonus, diatessaron, diapente, diapason*, while the second offers ascending *breves* with the syllables of solmization, *ut re mi fa sol la*. (p. 251)

Interest regarding the codex did not resurface until after World War Two. After dating the manuscript to around 1410,⁹ Reaney (1960, p. 30) returned to the miniature for the fourth time, without attempting to identify the «bearded man», probably because in a long and detailed article Paul Beichner (1954) had stated that the hammering man called Tubalcain was in fact Jubal.

A later contribution is that of Giuseppe Corsi (1970, p. XLVIII), who ignored Carducci's hypothesis regarding Cecilia, but accepted Tubalcain as the smith («whom the Middle Ages considered the inventor of music»). In a footnote he mentioned both Isidore of Seville's *Etymologies* (the passage quoted, however, speaks of «Tubal» and not of Tubalcain), and an engraving from Gaffurio's *Theorica* (where the character, though, is named «Iubal».¹⁰ Finally, John Nadas, in his doctoral dissertation on polyphonic manuscripts of the Italian Ars Nova, uses the name «Tubal» to refer to the illumination.¹¹ I will address this aspect in the second part of the article.

Paolo da Firenze's contribution to the codex

As early as 1903, Ludwig noticed that gatherings 7 and 9 of *Pit* – where all the compositions were by Paolo da Firenze (ca 1355-1436) – had been added in the last phase of the compilation of the codex.¹² The unusual presence of Paolo

⁸ Completed, with corrections, by LUDWIG 1905, p. 615.

⁹ In the meantime, several diverging opinions had appeared. Previously, FÉTIS (1827, p. 109) proposed the range 1350-1430 while MARSAND (1838, p. 579) suggested a more generic fifteenth century, which became the fourteenth century in both MAZZATINTI (1888, III, p. 111) and WOLF (1904, p. 250). Following CARDUCCI's dating of *Godi Firenze* (1870, p. 463), adopted by LUDWIG (1903, p. 55), this became the prevalent dating (LUDWIG 1929, II, p. 27, APEL 1950, p. 3, FISCHER 1956, p. 93, REANEY 1960, p. 34). PIRROTTA (1951, V, p. 119), however, suggested 1430, believing *Pit* to be a collection of the works of Paolo da Firenze late in his career.

¹⁰ See below Fig. 2 and *Bibliography* numbers [11] and [45].

¹¹ NADAS 1986, note 244 and p. 236 (see also NADAS 1989, note 11); the name is taken from GÜNTHER 1967, p. 110.

¹² This feature is evidenced by the chronological structure, by the hand (different than the rest of the codex), and by the index, where the composition of gatherings 7 and 9 are added to the end.

(virtually absent in other collections of the Italian Ars Nova) fostered research on the composer that ultimately proved to be ill-founded. It was believed that he was made abbot of Sant'Andrea del Pozzo (in Arezzo) and protected by Cardinal Acciaiuoli;¹³ that he was a member of the Capponi¹⁴ or Leoni¹⁵ families of Florence; that he was a singer in the Florentine church of Santa Reparata;¹⁶ and that he was active at the abbey of Sasso d'Arezzo, where he supposedly died in 1419.¹⁷ None of these hypotheses has successfully been verified.¹⁸

In reality, Paolo was born around 1355. He became an abbot in 1401, with the charge of San Marino al Pino (in Arezzo), a position that he held until his death sometime after 1436. He resided, however, in Florence as the rector of Santa Maria Annunziata (also called «dell'Orbetello»), and in 1417 he offered to his church an illuminated antiphony produced by the monks of Santa Maria degli Angeli, the Camaldolese monastery where the most splendid Florentine musical codices were produced.¹⁹ Since Paolo would have assumed his responsibilities at the monastery of Santa Maria degli Angeli around that year, it has been suggested that he became the supervisor of musical manuscripts (GÜNTHER 1987, note 21). Most importantly, since *Pit* appears to have been produced in Santa Maria degli Angeli,²⁰ it has been further supposed that

NÁDAS (1986, p. 216 ff), who was able to study the various scribes of *Pit*, confirmed this hypothesis.

¹³ PIRROTTA 1952 puts forward this hypothesis, which is not entirely improbable, and could even make sense for the early years, between 1401 and 1409. In reality, Paolo's role at Sant'Andrea is documented only in the months of the Council of Pisa of 1409 (GÜNTHER 1987).

¹⁴ PIRROTTA 1961, p. 26. This hypothesis originates owing to the (presumed) presence of the arms of the Capponi family in *Pit*, and the importance of the codex within the transmission of Paolo's works. The discovery of Paolo's will (GÜNTHER 1987, p. 228), however, excludes a blood relationship with the Capponi family.

¹⁵ BECHERINI (1962, p. 161 ff) and GÜNTHER (1967, p. 104 ff) propose this idea based on the arms that accompany the portrait of Paolo in the Squarcialupi codex (*Sq*); however, as Becherini had already noted, there is not a full correspondence between those arms and the actual crest of the Leoni family of Florence. See also NÁDAS 1992, p. 27.

¹⁶ D'ACCONE 1973, though the suggestion had been made earlier in PIRROTTA 1961, note 54.

¹⁷ FISCHER 1968. For a discussion of the misunderstanding see GÜNTHER 1987.

¹⁸ GÜNTHER 1987 correctly reconstructs Paolo's entire biography. The most recent biographical synthesis can be found in FIORI 2014.

¹⁹ GÜNTHER 1987, p. 209 and figs 2-3; this antiphony is today in Douai (France), Bibliothèque Municipale, ms. 1171. Regarding the *scriptorium*, see BENT 1993. On the choir books, see LEVI D'ANCONA 1978, 1994, and 1995.

²⁰ The provenance from Santa Maria degli Angeli was proposed on the basis of correspondences between *Pit*, the Lucca codex (*Mn*), the Squarcialupi codex (*Sq*), the Lowinsky fragments (*Lw*), and Ashburnam (*Fl999*). PIRROTTA (1951, I, p. 123) was the first to link the hand of gatherings 7 and 9 of *Pit* to *Mn*. The scholar later connected the same hand to *Lw* as well (1961, pp. 18-20), suggesting Santa Maria degli Angeli as the place of compilation. Subsequently, further evidence came to light. FISCHER (1968) attributed *Sq* and *Fl999* to the same workshop. BELLOSI (1985, p. 310) connected the illuminators of *Sq* to Santa Maria, and NÁDAS (1986, p. 220) noticed similarities between the miniature of *Pit* and those of *Sq*. LEVI D'ANCONA (1961 pp. 87-88) claimed to have recognized in *Sq* the hand of Bartolomeo di Fruosino, also active at Santa Maria, although BELLOSI (1992, pp. 147, 157) doubts this theory. See also GIBBONS 2010.

the added pages with Paolo's compositions relate to the composer's role at the monastery.²¹

An attribution without an identity

Mirella Levi D'Ancona (1957, p. 28) was the first to connect the full-page image from *Pit* to the anonymous author of roughly twenty miniatures produced at Santa Maria degli Angeli. Lacking any way of identifying this author, Levi D'Ancona named him «Maestro delle canzoni», based on the title that appears in the nineteenth century binding of the codex (*Chansons italiennes en musique*). In Levi D'Ancona's reconstruction, the Maestro was to be placed, both stylistically and chronologically, between the two most important artists working at Santa Maria degli Angeli, Silvestro dei Gherarducci (†1399) and the more famous Lorenzo Monaco (†1425). Yet, while Lorenzo's style is quite recognizable, that of Silvestro and the Maestro can easily be confused with each other.

The unspoken argument for the attribution to the anonymous Maestro was the impossibility of assigning the illumination to Silvestro's years. The commonly accepted dating of *Pit*, in fact, made it incompatible with the activity of the painter, leading Levi D'Ancona therefore to hypothesize a successor to Silvestro with very similar stylistic characteristics.²² Subsequently, however, all the attributions to the Maestro suggested by Levi D'Ancona, apart from *Pit*, were assigned to Silvestro or to his school.²³

Previous codicological investigation of *Pit* has identified different hands and a redaction around 1410 or slightly before.²⁴ Moreover, most of Paolo da Firenze's known compositions appear in gatherings 7 and 9, which were added in the last stage of production.²⁵ Since the proposed dating is primarily based on the madrigal *Godi Firenze*, inserted in gathering 7,²⁶ nothing prevents the suggestion that the earliest part of the codex was conceived and prepared at the end of fourteenth century (when Gherarducci was still alive). A few years later, the manuscript was probably completed under the direction of Paolo da Firenze when, around 1410, he started to work at Santa Maria degli Angeli. This would explain the presence of two added gatherings with music by Paolo. Furthermore, the style of the illumination, which appears on the first gather-

²¹ This hypothesis was already advanced by PIRROTTA 1961, pp. 18-20.

²² LEVI D'ANCONA (1957, p. 35) dates the illumination to the «second decade of the fifteenth century», agreeing with the *post quem* of *Godi Firenze* suggested as early as CARDUCCI 1870.

²³ FREULER 1997. See also his entry on *Silvestro dei Gherarducci* in BOLLATI 2004.

²⁴ With regard to the hands, see NÁDAS 1986, ch. 4, and NÁDAS 1989; his dating accepts GÜNTHER 1967.

²⁵ See above note 12.

²⁶ GÜNTHER 1987, note 3, and NÁDAS 1989, note 4 (NÁDAS numbers gatherings 7 and 9 respectively 6 and 8). The two scholars suggest that *Girand' un bel falcon* is likely to have been written during the Council of Pisa (1409). Actually, the text is not so explicit, but in any case the madrigal was notated in one of the last folios by a hand operating in the last phase of compilation (see NÁDAS 1986, pp. 283-284).

ing compiled, is very close to Gherarducci's style.²⁷ Indeed, as I have already argued elsewhere (DAOLMI 2017), the unusual subject matter of the miniature is tied to an iconographic tradition that was quite prevalent before the 1380's. Moreover, it is unlikely that the workshop of the most fashionable musical *scriptorium* in Florence would have decorated one of its own codices with an iconography which, in the early Quattrocento, probably looked already rather dated.

This hypothesis is more coherent with the presence of solfège and the Guidonian hand drawn at the end of the codex. The profound stylistic differences between the two images in the manuscripts prove that the codex was produced in at least two different periods, and the pedagogic nature of the last drawing appears to be the result of Paolo's didactic interests. Indeed, Paolo was the author of a short treatise of music theory²⁸ and was even depicted with a student at his side in the miniature of the Squarcialupi codex.

The added motto

Wolf noted a further element in the miniature, the motto on the scroll held up by the angel:

The image closes below with a winged female figure with a scroll on which the following words were added *u^een. goth. upel*, which to me are incomprehensible.

(WOLF 1904, p. 251)

Pirotta (1961, p. 25) preferred to read *u^een goth uyel*, associating the phrase with the motto «Wann Gott will», which Litta's *Famiglie* traces to the Capponi of Florence.²⁹ Since Gino Capponi (†1421) had recounted the conquest of Pisa in 1406 (MURATORI 1751, vol. XVIII), an event to which the madrigal *Godi Firenze* refers, it made sense to trace the ownership of the codex to his family, and thus far there has been no reason to question this attribution.³⁰ However, the connection between the Capponi family and the codex is far from being certain. The motto recorded by Litta was only one of several used by the family, and the only known attestation is that of Recco Capponi (1413, *post*-1491), who adopted it in 1470 in order to decorate his

²⁷ It is unlikely that the recto of the first folio was left blank on purpose so as to be used to complete the index, and that the miniature was added later, when the folio remained unused (NÁDAS 1986, p. 237). In fact, even if compiled at the same time as the music, the index takes up a separate gathering where every single page was assigned to a different letter of the alphabet before starting to copy the incipits. Moreover, the practice of realizing illuminations before copying the music is witnessed by other coeval manuscripts, first of all *Sq*, which includes all the miniatures, while the music is missing on several pages.

²⁸ *Ars ad adiscendum contrapunctum*, which can be found in two drafts (Florence, Bibl. Laurenziana, *Ashb.1119*, and Siena, Bibl. Comunale, *I.V.36*). SEAY 1959 edited the Florentine copy. For a study of the Siense manuscript see MEMELSDORFF 2004.

²⁹ The motto is recorded by Luigi Passerini in *Dell'arme* (cf. LITTA 1871, table I).

³⁰ After GÜNTHER's investigation (1967, pp. 107-110), this fact was taken as definitive, and it remains as such in D'AGOSTINO 2001.

arms at the *palazzo pretorio* in Poppi,³¹ suggesting that it was a personal motto rather than one used by the family.

On the other hand, the unclear *ductus* of the text and the use of different ink suggest a later addition. Moreover, the arms on which the angel rests are obscured to the point of being unrecognizable today.³² It is likely that whoever added the motto erased the shield in order to eliminate the memory of the previous owner.

In those same years, the motto *Wan Gott wil* belonged to Count William III of Henneberg, imperial prince (1434-1480), whose personal emblem was a grafted tree. William was a profoundly religious man who died in the Tirol on his way back from a pilgrimage to Rome. The metaphor of the grafted tree (cf. *Romans* 11.16-24) refers to the idea of joining oneself to the tree of faith while waiting for it to blossom (whenever God wills it). The emblem and its description appear in the *Simbola* of Jacob Typot (1601, II, pp. 162-163),³³ and the prince's use of the motto also appears in the genealogy of Lucae (1705, p. 1195).

Almost a century later, the motto was reused by Giulio Giovio, nephew of the more renowned Paolo. In his posthumous *Dialogo dell'impresa* (1555), Paolo attributed authorship to Giulio, but both the form and meaning are those adopted by the count of Henneberg.³⁴ Several years later, a plant beside a river was the emblem adopted by Girolamo Ruscelli, together with the motto *ΘΕΟΥ ΣΥΜΠΑΡΟΝΤΟΣ*, interpreted as a translation of *Wenn Gott will*.³⁵ In 1566, Ruscelli mentioned Giulio Giovio's device, declaring that he had adopted it in his youth.³⁶

The ecclesiastical career of Giulio Giovio was encouraged by his uncle Paolo, even if the young man's interests lay mainly in poetry. As is well known, Paolo Giovio was connected to the Medici and to Florence, and through him Giulio could have received the codex as a book of old poetry. Appropriating

³¹ See table IV in LITTA 1871. It is also indicated by GÜNTHER (1967, p. 109) who verifies the presence of the arms in Poppi, but not the motto, which had perhaps been erased during subsequent restorations.

³² It is worth noting that there might be a relation between the erasure of the coat of arms and the removal of the attribution of thirty-one compositions in the second half of the codex, which were studied in GÜNTHER 1966.

³³ References to the motto, on the basis of Typot, can be found in FERRO 1623, p. 34 and GATTY 1872, p. 20.

³⁴ Of the numerous editions of the *Dialogo* that appeared in subsequent decades (also in Spanish and French as well), only those published by Guillaume Rouille in Lyon (1559 and 1574 in Italian, 1561 in French) carry a depiction of the emblem. The illustration of the grafted tree, published by Typot (1601) for William of Henneberg, is derived from Rouille's engravings, though reversed and with a different background.

³⁵ The emblem appears in PITTONI's collection (1562, f. 43), flanked by octaves from Lodovico Dolce. Agostino CASU (1999, p. 85) connects the Greek motto to Giovio's.

³⁶ RUSCELLI 1566, pp. 505-507. The work would be republished in 1572, 1580, 1584, and 1596. References to this device, by now indissolubly attributed to Giulio Giovio, can be found in CARPACCIO (1592, I, 39r), TASSO (1594, p. 54), and GELLI (1916, pp. 657-658). I would like to thank Bonnie Blackburn for directing my attention to this latter collection.

the motto of the German prince, he could have claimed the book as his own, scribbling over the blank scroll. These are merely hypotheses that currently have not yet found confirmation.³⁷

Cecilia

The miniature in *Pit* displays other interesting elements. Is the woman playing really Saint Cecilia, as Carducci claims, or is she a common personification of music? Who is the blacksmith at her feet, Tubalcain or Pythagoras? And why these names, since the Bible attributes the invention of music to Jubal? More importantly, what is the significance of the two columns with musical inscriptions? These problems have been previously addressed by scholarship, but the role of *Pit* in the evolution of the depiction of Lady Music has yet to be clarified.³⁸

The personification of music first appears in Martianus Capella's *De nuptiis Philologiae et Mercurii* (ca 410), whose canon of the seven liberal arts would correspond a century later to Boethius' trivium and quadrivium.³⁹ In Capella, Music sings, and musical instruments appear there as part of the wedding procession; however, the identification of Music with a woman playing an instrument would subsequently become ever more frequent.⁴⁰ For instance, such a description can be found in Alain de Lille's *Anticlaudianus* (12th c.).⁴¹

The hypothesis that *Pit* might depict not only Music, but also Saint Cecilia, has its foundation in the portable organ that the woman is playing. The cult of Cecilia, virgin-martyr who lived between the second and third centuries, is documented from the fifth century onward, but it is only much later, towards the fourteenth century, that – due to a misunderstanding of a passage from her hagiography – she is associated with music. In fact, the text at the origin of the cult, the *Passio sanctae Ceciliae* (ca 500), recounts how the Roman girl, during her wedding day, resisted the seductions of the pagan ritual by praying to God:

³⁷ The codex was not recorded in the inventories of Santa Maria degli Angeli (a list can be found in BALDELLI 1972): this leads to surmise that it had entered into the possession of private individuals. Such a theory increases the probability that it had moved to France during expropriations prior to 1802, rather than as a result of the Florentine ecclesiastical plundering of 1808.

³⁸ OPPERMAN 1925, BEICHNER 1954, STEADMAN 1964, COHEN 1974, MCKINNON 1978, FRINGS 1995, FRITZ 2004.

³⁹ *De institutione arithmetica*, I.1. Cf. SEEBAS 1988, p. 25.

⁴⁰ Cases in which Lady Music is not associated with an instrument are rare, as for instance the well-known miniature in *Pluteus* 29.1 (13th c.) in the Biblioteca Laurenziana, depicting the three Boethian forms of music, *mundana*, *humana*, *instrumentalis*, as a woman with a scepter in her hand.

⁴¹ See D'ANCONA 1902, p. 149 (with a synthesis of this allegorical poem). In the text, the Arts construct a chariot for Philosophy, which is drawn by the five Senses, and Music has a cithara in her hand.

Venit dies in quo thalamus collocatus est et, cantatibus organis, illa in corde suo soli Domino decantabat: «Fiat cor meum et corpus meum immaculatum, et non confundar.» (ed. in DELAHAVE 1936, p. 196)

[The day arrived in which her wedding had been set and, with the instruments playing, she sang in her heart to God alone: «Let my heart and body remain immaculate and let them not be confused».]

This phrase suggests that Cecilia was not affected by the music, and that only the song of her silent prayer meant something to her. The passage, compelling in its juxtaposition of pagan sounds and the sound of a divine interiority, was paraphrased in the antiphon of her sanctorale, which celebrated her as a Christian martyr and not as the patroness of music (the phrase in brackets is present only in responsories):

Cantantibus organis, Caecilia [virgo, in corde suo, soli] Domino decantabat dicens: «Fiat domine cor meum et corpus meum immaculatum ut non confundar.»

[While they played the organs, Cecilia [a virgin, in her heart] addressed [the one and only] God, saying, «Oh Lord, let my heart and body remain immaculate and let them not be confused».]

The emphasis placed by the antiphon on this phrase (the only one in the entire *Passio* where music is discussed) led to the substitution of generic attributes. The palm of virginity and the sword of martyrdom turned into one or more organs, a figurative reference to the text of the antiphon («Cantantibus organis»). The ambiguity of the words, which in this context probably mean ‘instruments’ rather than ‘organs’, would produce images with Cecilia placed near a reed organ.⁴² Starting from the fifteenth century, Cecilia begins to play a portable organ, and the personification of music is superimposed over the iconography of the saint.⁴³ In all likelihood, *Pit* does not refer to this model, though it is not improbable that readers in the fifteenth century could also have interpreted it in this manner.

⁴² The oldest example is a miniature of the letter ‘C’ of the antiphon which can be dated to 1260 (STAITI 2002, p. 19). Dated to 1300, on the other hand, is the statue of Santa Cecilia in the Museum of Castelvechio (CONNOLLY 1983, p. 129, and 1994, pp. 215-216); but the statue was altered: the hand with the organ was added at a later date. Two other fourteenth-century miniatures can be found in BARONCINI (2001, p. 36) and in SCHERLIESS (2000, p. 60); in images from this period, however, Cecilia does not play the instrument.

⁴³ Regarding the classical iconography of the saint, see the studies by CONNOLLY (1980, 1984, later merged in the 1994 volume), BARONCINI 2001, and STAITI 2002.

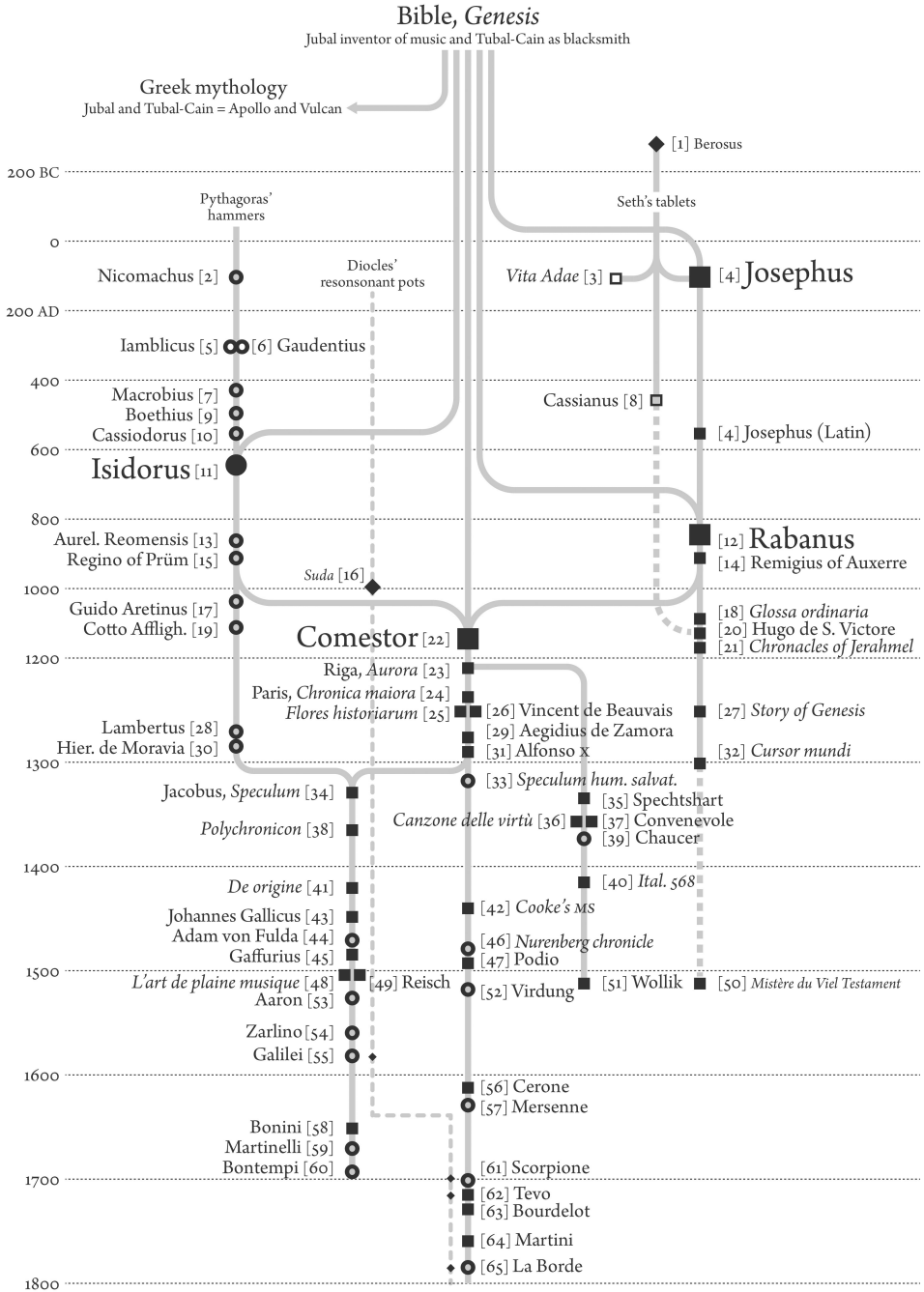
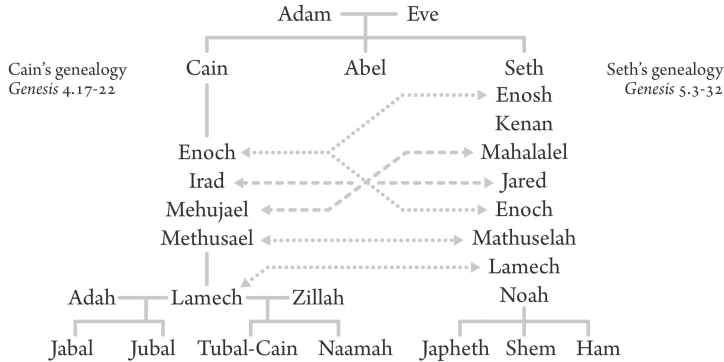


Figura 2 – The myths of Pythagoras (left), Jubal (centre) and the pillars (right). The dissemination of the myth of the pillars is shown by the small squares.

II.

A cursed lineage

Genesis (4.21-22) attributes to Jubal the invention of music and to his brother Tubalcain the working of metals. Before looking at why the two brothers – or rather, half-brothers – were confused first with one another and then with Pythagoras, it is worth considering the moral role that Jubal plays in the Bible. His family descends directly from Cain, but if one compares this genealogy with the one stemming from Seth, third son of Adam and Eve (*Genesis* 5.3-32), many names correspond:



It is clear that the genealogy of Seth is the ‘saved’ counterpart to the ‘cursed’ genealogy of Cain. If the children of Noah survive the flood, the four last descendants of Cain will not, despite the fact that they are attributed with the first forms of knowledge: agriculture, music, metallurgy, and weaving.⁴⁴ Ultimately, then, we find here again the biblical diffidence towards knowledge that is the core of Adam and Eve’s original sin.

The story of Pythagoras and the largely forgotten myth of the columns of stone and brick were later grafted on to the biblical text. The interference of these two narratives creates an extremely complex account for the origin of music, summarized in Fig. 2. The three vertical paths in the diagram correspond to the three most significant traditions present in the image of Lady Music: at the center, the tradition of *Genesis*; that of Pythagoras to the left; and that of the columns to the right (the proliferation of this latter myth is identified by the small squares; circles indicates sources that do not mention the columns).

⁴⁴ Actually, the Bible says nothing about the abilities of Naamah, but skills in weaving are attributed to her as early as in the *Imago mundi* by Onorius Augustodunense (†1154); see FRITZ 2004, p. 139. The depiction of Lamech’s family in ms. London, British Library, Egerton 1894, f. 2v (mid 14th c.) represents Naamah working at the loom. The Jewish tradition, on the other hand, attributes the art of song to Naamah, tracing the professions back to the etymology of the names of the four children (see MEYERS 1998).

Pythagoras

The story of Pythagoras is well-known. The mathematician was listening to the sounds produced by an anvil being struck by different hammers in a smithy. He then realized that the sounds produced were in a simple mathematical relationship with the weight of the hammers (2:1, 3:2, 4:3).⁴⁵ The story was recorded for the first time in the *Manual of Harmonics* by Nicomachus [2],⁴⁶ a text written six centuries after Pythagoras, and later in the *Life* of the philosopher written by Iamblichus [5] and in the *Introduction to Harmony* by Gaudentius [6]. The extraordinary success of this story – fostered by the authority of Macrobius [7], Boethius [9], Cassiodorus [10], and Isidore of Seville [11] – produced, from the twelfth century, a contamination with Jubal and Tubalcain. From that point on, the story began to spread that Jubal, the inventor of music, discovered consonances while hearing the sounds generated by his brother, the blacksmith. Although there was some unease among the chroniclers, the two stories – Jubal and Pythagoras – continued to coexist for centuries, feeding off one another.

Though the legendary nature of the story of Pythagoras was reestablished by Oppermann (1924), Vincenzo Galilei in his *Dialogo* (1581, p. 127) had already questioned the foundation of the tale, recalling how the *Suda* lexicon told a similar story traceable to Diocles,⁴⁷ but with pots and batons rather than anvils and hammers.⁴⁸

The theory that the story of Pythagoras' smithy had actually been derived from earlier Old Testament writings deserves to be reconsidered. There is more than one reason to imagine that the Greek tradition had taken up suggestions from the Hebrew tradition. Jubal the musician and Tubalcain the blacksmith, for example, can be likened to Apollo and Vulcan, not only for their profession but also for the similarity of their names.⁴⁹ Grouped together in one of the *Dialogues of the Gods* by Lucian of Samosata (2nd c. AD), they are a popular pair even in modern times: *Vulcan's Workshop* by Velásquez (1630) is the most famous example. Subsequently, with the story of Pythagoras by

⁴⁵ The claim itself is false, as an anvil struck by hammers of different weight will produce sounds of different intensity, not of different pitch. Only multiple anvils of different weight, regardless of the hammers, can produce different pitches. GALILEI (1589, p. 104) moreover observed that the proportions are valid only in the case of length (of strings), but not of weight, whose correct relationships are squared.

⁴⁶ The number in square brackets refers to Fig. 2 and to the *Bibliography* (see note 1).

⁴⁷ The *Suda* lexicon, under the lemma *Diocles*, attests that Diocles of Fliunte was a comic playwright, though there also exists a person with the same name in Pythagoras' school, ca. 350 BC (Diogenes Laertius, *Life of the Philosophers*, VIII/1.46; this passage was then repeated in Iamblichus, *Life of Pythagoras*). It is possible that the note in the *Suda* concerning the vases refers to the mathematician (unknown in the lexicon), and was then erroneously attributed to the playwright.

⁴⁸ This version has barely survived, and the outline traced in Fig. 2 connects those few attestations that have passed on any reference: GALILEI 1581 [55], SCORPIONE 1702 [61], TEVO 1706 [62], LA BORDE 1781 [65].

⁴⁹ HUET 1679, p. 122 (Prop. IV, chap. 10, § VI), cf. also MARTINI (1781, II, p. 19), KORN (1845, III, p. 322), DUNLAP (1858, p. 77), STEADMAN (1964, p. 665), and MCKINNON (1978, p. 20).

then confused with the myth of Tubalcain, the early modern tradition reassigned the name of Vulcan to the biblical blacksmith, as appears in Marino's *Adone* (1623).⁵⁰

The connection between Pythagoras and Apollo was asserted with insistence by the Neo-Pythagorians, who wanted the philosopher to be the son of the god. Porphyry (*Life of Pythagoras*) disregards this divine lineage, but reiterates a link with the god. Iamblichus, Porphyry's student, describes Pythagoras as almost the incarnation of Apollo (JOOST-GAUGIER 2006, p. 53). In their reaction against Christianity, it is likely that the discovery of harmonic theory led these two Neoplatonic writers to superimpose Pythagoras and Apollo onto Jubal/Apollo, the first musician. Likewise, the peculiar sonority arising from the profession of the brother Tubalcain/Vulcan might have suggested the story of the workshop.⁵¹ Porphyry himself recalls that Pythagoras, once he arrived on Crete, was initiated into the sacred mysteries in the grotto of Morgo, one of the Dactyls, the first blacksmiths and inventors of metallurgy (*Life of Pythagoras*, 17).

The pillars of knowledge

If the story of Pythagoras remained separated from the Bible for a long period of time, the story of the two pillars of knowledge developed in early patrology. The four 'cursed' sons of Lamech – Jabal, Jubal, Tubalcain and Naamah – know that humanity will be destroyed, but they do not know whether it will be by water or by fire. In order to save their knowledge after the destruction, they decide to carve it onto two pillars, one of stone to endure water, and the other of brick to endure fire. The story, documented as early as the first century, later took on specifically musical connotations, though from the beginning it also presented several incongruous elements. Why should brick resist fire better than stone? How did the descendants of Cain come to know of the divine plans that God had revealed only to Noah?

In reality, the myth, recounted for the first time by Titus Flavius Josephus in his *Jewish Antiquities* [4], was adapted from another story which tells not of pillars but of tablets. Josephus' invention of the pillars is perhaps an attempt to lend significance to the existence of the ancient and mysterious obelisks, which Josephus imagines were erected in imitation of a mythical

⁵⁰ *Adone*, upon arriving in the garden of hearing, listens to Mercury tell the story of Love, who discovered harmonic intervals while listening to Vulcan's hammers (*Adone*, VII, stanzas 58-59). In the *Baldus* by Teofilo Folengo (†1544), the erudite musical description preceding the entrance into Vulcan's clanging smithy (XXI.52-153) is linked to this relationship between music and anvils.

⁵¹ Furthermore, the relation between the theory of harmony and Pythagoras is very uncertain. In his *Life of Pythagoras* (*Lives of Eminent Philosophers*, VIII.12, ca 230 AD), the oldest to survive, Diogenes Laertius limits himself to saying, in reference to mathematical questions, that Pythagoras «had discovered the rule that is derived from one string». Such information is rather laconic (as well as based on a lost source, Anticlides's *Alexander*, which cannot be checked); yet modern commentators have not hesitated to connect it to the monochord and musical intervals.

pillar still standing in his own time.⁵² The story of the tablets had been recounted in the *Life of Adam and Eve* [3], an apocryphal story from the Old Testament that predates Josephus. There, following the death of Adam, Eve asks her youngest son Seth to bear witness to their fate. Since God was about to punish humanity with fire and water,⁵³ Eve suggested to her son that he prepare two texts, one on stone to resist the water, and the other on clay, so that the fire might solidify it. The stone, which survived the flood, was forgotten for a long time, until it was seen by Solomon, who was a man wise enough to understand the text.

The apocryphal work exists today in Armenian, Greek, Latin, Georgian, Slavic, and other versions, but the tale of the tablets is only in the Latin version, contemporary with or later than Josephus (COHEN 1974, p. 88). It is likewise possible that the myth of the tablets had circulated earlier, and that it had then been adapted by Josephus. The Latin version, though later than the others, nevertheless appears closer to the original.

We find a clue pointing in this direction in the writings of John Cassian (+435), the first theorist of the monastic life. In his *Collatio* (VIII, ch. 21) [8], he tells of Ham, the corrupted son of Noah, who sculpts the secrets of his art and knowledge on sheets of metal and stone in order to save them from the flood, even though they had been condemned by God. Since the pillars are not mentioned in the narrative, Cassian seems unaware of Josephus, though the story clearly belongs to the same myth. Cassian is, however, the first to insist on the moral danger of a *translatio studii* ('transmission of knowledge') against God's will. This fear was common in patristic texts, and it would influence the myth of Jubal and the pillars as well.⁵⁴

Comestor's synthesis

The first point of contact between Pythagoras and Jubal appears in Isidore's *Etymologiae* [11], where the author limited himself to juxtaposing the names of the alleged inventors of music:

Moses says that the art of music had been discovered before the flood by Tubal [= Jubal],⁵⁵ a descendant of Cain, while the Greeks say that Pythagoras discovered the foundations from the sound of hammers and from the striking of taught strings. (GERBERT 1784, I, p. 20)

⁵² Josephus recalls that such a stone pillar was still visible in «Seiris», a location whose existence historians continue to debate; see BEICHNER 1954, p. 10, and TOEPEL 2006, p. 240.

⁵³ This divine sentence, based on astrological readings, had already been expressed by Berosus (ca 300 BC) [1], as Seneca (+65 CE) recalls in his *Naturales quaestiones*, III.29/1.

⁵⁴ Regarding the moral aspects of preserving knowledge, specifically with reference to the myth of the pillars, see FRITZ 2004.

⁵⁵ Starting from Isidore and throughout the Middle Ages, the name of Jubal, the musician, is often changed into 'Tubal', or 'Tubal de stirpe Cain', but he is rarely confused with his brother Tubalcain, the blacksmith. The confusion between Jubal and Tubalcain, probably due to the ambiguous form 'Tubal', concerns exclusively the iconographic model of the *Pit* illumination (see below). On the slippage between Jubal, Tubal and Tubalcain, cf. BEICHNER 1954.

If Aurelianus Reomensis [13] and Johannes Cotto Afflighemensis [19] follow the model of Isidore, Regino of Prüm [15] and Guido d'Arezzo [17] prefer to reference only Pythagoras' hammers, according to the teachings of Boethius.

Regarding the tradition of the pillars, a new version was introduced by Rabanus Maurus in his *Commentaria in Genesim* [12]. Here the craftsman of the pillars is no longer Seth, but Jubal the musician. As Judith Cohen has pointed out (1974, p. 88), within the tradition of the Latin translation of Josephus promoted by Cassiodorus, several manuscripts move a phrase from §64 («meanwhile Jubal, his blood relative, cultivated music and invented the psalter and the cithara») to just before §70, making Jubal the craftsman of the pillars.⁵⁶ It is likely that this rearrangement had been conditioned by the idea that these columns preserved the secrets of the liberal arts. Destined to include geometry and astronomy as well, the pillars could not exclude the music of Jubal.

Though it is a derivative tradition, the relationship between the liberal arts and the myth of the pillars reemerges in the writings of cardinal Hugo of St Victor (†1141) who, in his *Adnotationes elucidatoriae in Pentateuchon* [20], attributes to Zoroaster («auctor maleficae mathematicae») the shrewdness of constructing two pillars in brick and in bronze (not marble).⁵⁷ Zoroaster intended to gift posterity with the knowledge of the seven liberal arts (which were seen as dangerous because seductive to the senses) on fourteen columns. The use of a metallic material, and the caution against the idea of preserving knowledge places the innovations introduced by Hugo in direct connection with Cassian's mistrust of the liberal arts.⁵⁸

Rabanus Maurus becomes a model, and as early as Remigius of Auxerre [14] – later followed by the extremely popular *Glossa ordinaria* [18] and the *Chronicle of Jerahmel* [21] – the sole craftsman of the two pillars remains Jubal (or Tubal, in Isidore's account).

The shift occurs as a result of the syncretism of Petrus Comestor (†1180). A professor at the University of Paris (from 1158) and subsequently chancellor of the same institution (1164-1169), he will later be called by Dante, not coincidentally, a «devourer of books» (*Paradiso* XII.134). In his incredibly popular *Historia scholastica* (ca 1170), the first great history of the world, Jubal is the craftsman of the pillars. Moreover,

⁵⁶ For a list of the relevant codices, see the critical apparatus of Blatt's edition (1958) and note 23 in COHEN 1974.

⁵⁷ The substitution of bronze with marble also appears in *De origine et effectu musicae* (ca. 1420) [41] and in the almost immediately subsequent Cooke's manuscript [42]. In the latter, due to a further corrupted tradition, the bronze pillar resisted fire and the brick resisted water since it was able to float.

⁵⁸ FRITZ 2004, p. 137. The corruption of Lamech's children was also tied to the bigamy of the father, already highlighted in Venerable Bede's *Commentarii* (MIGNE 1855, vol. 91, 219d) and repeated, for instance, by Remigius of Auxerre [14], by the *Glossa ordinaria* [18], by Comestor [22], and by Vincent of Beauvais [26].

Tubal [= Jubal], ... pleased with the sound of hammers [produced by his brother Tubalcain] deduced from their weight the proportions and harmonies produced, a discovery that the Greeks attributed without basis [*fabulose*] to Pythagoras.

(MIGNE 1955, vol. 198, pp. 1078-79)

Comestor, with the word *fabulose*, manages both to rid himself of Isidore's ecumenical impartiality and to distance the invention of music from the pagans, restoring it to a biblical figure, thus placing it within a Christian framework. This overlap of two seemingly independent traditions was legitimized in a climate concerned with the reappraisal of Augustinian thought, which had previously made use of the classical tradition in order to ennoble the Christian (BROWN 1984; SEEBAS 1988, p. 25).

During the thirteenth century Comestor's became the prevalent version of the story. For instance, a similar reconstruction appears in the *Speculum maius* of Vincent of Beauvais [26], where it is also specified that Jubal did not invent musical instruments, but discovered the rules of harmony. Even the *Ars musica* of Egidio de Zamora [29], instructor to the children of Alfonso X the Wise, follows Comestor, though not without presenting alternative theories including Boethius' preference for Pythagoras, and the story of the fourteen columns from Hugo of Saint Victor. It is likely that even the *General Estoria* [31] commissioned by Alfonso X benefited from the erudition of Egidio de Zamora. In any event, the long and detailed story regarding the children of Lamech, together with numerous additional narrative elements, was able to accommodate the theory provided by Comestor's *Historia*.

The anonymous *Speculum humanae salvationis* [33], a text containing roughly fifty songs of 100 lines each and patterned on the *Biblia pauperum*, enjoyed immense popularity. As with the *Biblia*, the *Speculum* aims at uncovering prefiguration of the life of Christ. Both texts make use of an extremely successful iconographic system which would establish a figurative model for centuries to come. Canto XXIII of the *Speculum* recognizes in the crucifixion, with a certain associative boldness, the moment in which Jubal discovers musical consonances. The sweetness of the prayers of Christ and of the words of redemption addressed to God while the Romans hammer nails into his flesh are associated with the divine harmonies arising from the crude clanging coming from Tubalcain's smithy.⁵⁹ The image accompanying the text to the side of the crucifixion shows a musician (often with a psaltery in hand, sometimes a lute, sometimes nothing) near one or more blacksmiths who beat an anvil. This iconographic model will remain constant in every manuscript of the *Speculum*, as well as in numerous printings of the same work produced between the fifteenth and sixteenth centuries (WILSON 1984).

Comestor's paradigm was neglected only in more technical musical treatises, which were still tied to Isidore and uninterested in the myth of the

⁵⁹ Noteworthy is the aesthetic evaluation proposed by HOLSINGER 2001, pp. 203-208; see also TARNNTEN 2003.

pillars.⁶⁰ For instance, Jubal has no relation with Pythagoras in Magister Lambertus [28] and Ieronimus de Moravia [30].

Having thus absorbed Pythagoras, the figure of Jubal survived (and consolidated his position) through the end of the Quattrocento. The myth of the pillars as a *translatio studii* highlights the role of Jubal in claiming – even against God – the significance of humanity’s knowledge, an issue that the Bible did not address.⁶¹

The last epigones of the Latin version of Josephus – with Jubal as the craftsman of the pillars and Pythagoras absent – can be found in the *Chronica maiora* of Matthew Paris [24] and, following this work, in the *Flores historiarum* [25], as well as in the later but more widespread *Cursus mundi* [32].⁶² All these are popularizing re-readings of biblical stories and therefore unconcerned with the origins of music.⁶³

Aurora’s tradition

Beyond the images found in the *Speculum humanae salvationis*, the extraordinary success of Jubal – as discoverer of the secrets of music while listening to his brother Tubalcain – is also due to the poem *Aurora* by Petrus Riga [23]. The poem consists of fifteen thousand lines in elegiac couplets, and it elucidates biblical stories and their related patristic commentaries. In the twenty-two lines dedicated to the children of Lamech – which the Beichner edition (1965, pp. 45-46) numbers as 463-484 – there is a complete synthesis of Comestor’s account of Jubal’s story. We find Jubal the musician, his pillars, the authority of Josephus, the discovery of harmonies due to his brother’s hammers, but there is no reference to Pythagoras.

Twelve of the twenty-two lines of the *Aurora* are cited in the *Flores musicae omnis cantus Gregoriani* [35] by Hugo Spechtshart (†1360), one of the many short didactic treatises dedicated to the training of singers. The text (1332) was then printed a century and a half later, accompanied by a beautiful woodcut in which, behind two blacksmiths around an anvil, a man carries several hammers (Pythagoras?). In the background there are two columns,

⁶⁰ And yet, even the pair Music-Pythagoras remains under the influence of the iconographic model of the *Speculum humanae salvationis*. The miniature of Lady Music that decorates Cassiodorus’ *Institutiones* in a codex compiled ca 1340 (Paris, Bibl. Nationale, It. 8500, f. 39r) shows Pythagoras with the typical features of Tubalcain.

⁶¹ The myth of the pillars became an erudite curiosity only in the sixteenth century. An anachronistic version is the elaborate scene from the ninth chapter (*Deluge*) of the *Mistère du Viel Testament* [50], a French text in which Jubal and his brother Tubal (a simplification of Tubalcain) decide to sculpt the pillars before perishing in the flood. The original draft of the drama, first published at the beginning of the sixteenth century, contains many parts (especially this episode) which date back at least one or two centuries (HÜE 2004, p. 186).

⁶² In Matthew Paris, however, the absence of Pythagoras is only apparent, since his source continues to be Comestor (who knows Pythagoras) and not Josephus.

⁶³ In this environment we can also find the *Story of Genesis* [27] in Middle English, although it contains some interference. In fact, in this text the pillars are once again tables, and one of the two is made of metal, not marble, as Hugo of Saint Victor had proposed.

one clearly in brick, on which a fourth person (Jubal?) is busy carving musical phrases.⁶⁴ The success of the printed editions would revive interest in Riga's poem three centuries later, and Spechtshart's entire passage with the twelve lines of the *Aurora* would eventually be republished in 1508 in the *Enchiridion musices* by Nicolaus Wollik (1508 and 1512) [51].

The immense popularity enjoyed by *Aurora*, with an explicit reference to the passage on music, is also suggested by a citation in Geoffrey Chaucer's *The Book of the Duchess* (ca 1370) [39] (YOUNG 1937, BEICHNER 1954). There, in a dream, the Black Knight explains to the poet that he has lost his beloved in a game of chess against Fortune. With his beloved dead, the knight is unable to compose songs for her, being ignorant as well of the knowledge of Jubal «[who] fond out first the art of songe ... *Aurora* telleth so» (lines 1163, 1169).

Yet the most interesting case is the reuse of several lines of the *Aurora* in the margins of the depiction of Lady Music in the series of the liberal arts in Bartolomeo de' Bartoli's *Canzone delle virtù* [36]. A manuscript of this work was offered to Bruzio Visconti (†1356) before 1349, and it contains Bartolomeo's poetry with illustrations by his brother Andrea, a work which survives today in both the original manuscript and a copy. From here a *corpus* of images began to take shape in which the presence of the pillars is a common characteristic, as well as the depiction of Lady Music observing Tubalcain.

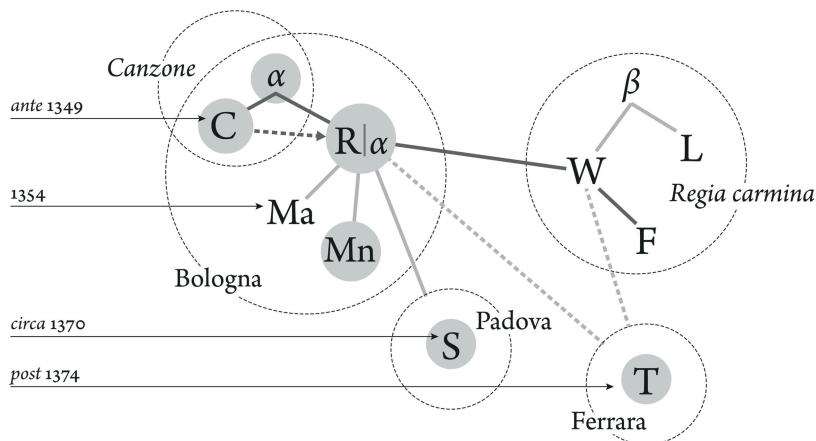
Beichner (1954) thinks that the man in front of Lady Music is erroneously called Tubalcain, and that it is in fact Jubal, with his brother's hammers in his hands.⁶⁵ In fact Bartoli's *Canzone* attributes the invention of harmony to Tubalcain, while the Bible assigns it to Jubal. However, it is difficult to say whether Bartoli misunderstood the biblical name or if he had imagined Tubalcain, the smith, sharing the musical knowledge of his brother, the musician. The iconographical model of the *Speculum humane salvationis*, surely known by Bartoli, shows Jubal separate from the blacksmiths (who stand metaphorically for Christ's executioners), in a way that seems to reinterpret the Pythagoras myth. Therefore, it is possible that the woman holding an instrument had appropriated the role of Jubal (that is, the intellectual component of the invention of music), while the personification of the mechanical component of music stays at her feet, correctly identified as Tubalcain.

Bartolomeo's *Canzone* bears witness to the earliest known version of the image that is found in *Pit*. Within less than thirty years from the appearance of the *Canzone*, the image – as shown in the scheme below – gave rise to a direct copy (*R*), four other illuminations (*Ma Mn W F*) and two frescoes (*S T*), most of which belong to the Augustinian milieu. I was able to reconstruct the stemma by collating the long captions of the image that appear in the various witnesses (circles identify similar areas of production, while the gray

⁶⁴ Venezia, Franciscus de Madiis 1485; Strasbourg, Johann Prüss 1488, 1492. The woodcut is only in the 1492 edition.

⁶⁵ BROWN (1984, p. 28) agrees with this interpretation.

background indicates the Augustinian environment that fostered such activity):⁶⁶



- C* Chantilly, Musée Condé, Ms. 1426 (*olim* Cd. xx 6426 B), f. [9v]⁶⁷
R Roma, Museo Nazionale, Gabinetto delle stampe, inv. 2818-2833, f. 15.⁶⁸
Ma Milano, Biblioteca Ambrosiana, B 42 inf., f. 1r.⁶⁹
Mn Madrid, Biblioteca Nacional, ms. 197, f. 3r.⁷⁰
W Wien, Österreichische Bibliothek, S.N.2632, f. 4.⁷¹
F Firenze, Biblioteca Nazionale Centrale, Banco Rari 38 (*olim* Magl. II.I.27 / CL.VII.17), f. 34.⁷²
S München, Bayerische Staatsbibliothek, Cod. lat. 418, ff. 104-109.⁷³
T Ferrara, Pinacoteca Nazionale, Serafino da Modena, *Trionfo di Sant'Agostino* (BENTINI 1992).

Bartolomeo's *Canzone* at the top of the stemma (*C*) identifies Bologna as the center where this particular iconographic model originates. The preparatory materials of *C* (α) could be the actual original model for *R*. *Ma* and *Mn* are two miniatures produced in the workshop of Niccolò di Giacomo (where

⁶⁶ Both the collation and the critical edition of the texts can be found in DAOLMI 2017.

⁶⁷ A facsimile (in greyscale), an edition, and a commentary were all published by DOREZ 1904. A more recent investigation of the codex, with a detailed bibliography, can be found in HANSEN (1995, pp. 60-73, 157-160). See also DE LAUDE 1996 and 1998, BOSI 2012 and CAMELLITI 2013. STIRNEMANN 2000 reproduces a color image of Lady Music.

⁶⁸ A description and a greyscale facsimile can be found in VENTURI 1899 and 1902. See also HANSEN 1995, pp. 169-171, SCHELLER 1995, pp. 363-370 and CAMELLITI 2013, pp. 127-128.

⁶⁹ The first to point out the miniature was DOREZ 1904, pp. 80-81. See HANSEN 1995, pp. 58-60, 147-150 and BOLLATI 2003.

⁷⁰ The miniature was traced to the workshop of Nicolò di Giacomo by Dominguez BORDONA 1925, pp. 183-188. A bibliography can be found in HANSEN 1995, pp. 56-58, 137-146.

⁷¹ A reproduction of the seven images can be found in SCHLOSSER 1896, p. 17 and, in color, in STOLZ 2004, pp. 852-855. A facsimile of the entire codex was edited by MARCHIONNI 2010.

⁷² A facsimile and study are found in TANZINI 2004. The bibliography in HANSEN (1995, pp. 166-168) should also be combined with the excellent catalog found in DEBERNARDI 2013.

⁷³ The autograph of Schedel (München, Bayerische Staatsbibliothek, Cod. lat. 418, ff. 104-109) was reproduced in SCHLOSSER 1896, pp. 91-95.

the Bartoli brothers were also active). *W* and its copy *F* are miniatures from the series of liberal arts inserted into an appendix in two of the three codices of the *Regia carmina* attributed dubiously to Convevole da Prato (†1338). *L* is the third copy of the *Regia carmina* with different images. *S* identifies the frescoes by Giusto de Menabuoi in the Cortellieri chapel (in the Chiesa degli Eremitani in Padua) – or rather, just the captions, as the church was severely damaged in 1610 (PORTENARI 1623, p. 449). The texts, however, were transcribed by Hartmann Schedel (†1514), author of the *Nuremberg Chronicle* [46]. *T* refers to the fresco by Serafino de' Serafini (†1393) painted in the church of Sant'Andrea in Ferrara, today completely destroyed. The fresco in Ferrara had been removed in 1908 and today is preserved, incomplete, in the city's Pinacoteca.

The columns are not the only element that identifies this particular group of images. Howard Mayer Brown (1984, pp. 42-48) has focused at length on the reasons for which Lady Music, both in *W/F* and in *Ma/Mn*, has two instruments, one in her hand and the other on her lap. The answer is obvious once we look at the origin of the iconographic model.⁷⁴ Lady Music in *C/R* had, in fact, been depicted seated alone on a throne, surrounded by every sort of instrument. Yet the necessity for *W/F* to locate two liberal arts beneath a single seat – since the surrounding space had been reduced – led to the sacrifice of those instruments placed on the side, leaving only those that Lady Music held in her hand or arms, as in *R*. In a similar, but more radical solution, the illustration in *Ma/Mn* reunited all the arts in a single miniature. The erroneous idea that these images were part of a widespread tradition – and not merely demonstrations of a local production limited to the third quarter of the Trecento – was supported by the lasting success of latter derivations of the same subject. The most influential model was the series of the Liberal Arts frescoed in the *Capellone degli Spagnoli* by Andrea di Bonaiuto (ca 1367), which introduces a simplification of the image. In fact, the wide dissemination of this iconography would be a later phenomenon, where several elements would be lost (the columns in the first place), thus leading to confusion with other representations of Music.⁷⁵ Furthermore, that very image – due to the presence of an organ – would provide the path that leads to the

⁷⁴ BROWN (1984, pp. 29-30) considered *W* to be higher up than *C/R*. Yet uncertainties regarding the stemma are not new. SCHLOSSER (1902, p. 335) judged *R* to be later, further deriving *S* from *W/F*. DOREZ (1904, p. 71), dating *C* to 1355, held that it was modeled on *Ma* (produced in 1354). Despite the fact that FILIPPINI (1911, p. 59) declared *C* to be earlier than 1349, the year of Luchino Visconti's death (who is mentioned as still living in the Canzone), COLETTI (1934) preferred to keep the year 1355. This date allowed him to consider *T*, the fresco which was the object of his study, as earlier than *C*. Although Filippini's dating is the only acceptable one, recent contributions such as CAMELLITI (2013, p. 124) still adopt 1355 as the date. LODI (1981), though basing his analysis on Coletti's stemma, nevertheless has *T* derive from *Mn*; and HANSEN (1995, p. 56) claims that *S* was modeled on *Ma/Mn*.

⁷⁵ Even the elaborate motet *Pictagoras, Jabol et Orpheus* (ca 1400) by Johannes Susay considers Jubal nothing more than a name to associate with the origins of music. I wish to thank Susan Weiss for bringing this piece to my attention.

iconography of Saint Cecilia. To this wider context belong, for instance, the miniatures that surround the first page of Dante's *Inferno* by Bartolomeo di Fruosino (ca 1430),⁷⁶ the *Allegory of Music* by Apollonio di Giovanni (CALLMANN 1974, p. 51, n. 1) and the series of panels of the liberal arts painted by Giovanni dal Ponte (1435) and Domenico da Michelino (1450),⁷⁷ all of whom are, not coincidentally, Florentine authors.

The miniature in *Pit* certainly knows the Florentine fresco, but it presents two innovative elements: the columns, and the representation of Music independently of the other liberal arts. This second element transforms the female series of the arts (each one identified by one symbolic object plus its inventor) into a woman, who is Music herself. In this type of illustration, the primary focus is on the woman, thus paving the way to the subsequent transformation of the image into that of Saint Cecilia (who will be depicted as a woman playing the organ). In the famous illumination from the mid-fourteenth-century *Neapolitan Boethius*, which shows a woman with a portative organ (without Tubalcain and the columns), the personification of Music appears in an elementary form.⁷⁸ What is of particular interest is that the image attests the importance acquired by the organ among the other musical instruments. The organ, already present in the *Canzone*, disappears in the other Bolognese miniatures, but it is again present in the Florentine fresco promoted by the Dominicans. Both the fresco and the *Pit* miniature were conceived by the Dominican scholars of Santa Maria degli Angeli, who, in those years, were actively involved in the promotion of Saint Augustine. The two columns as they are depicted in *Pit* are very different from the Bolognese miniatures. This suggests that the image was not copied from a specific iconographic model, but resulted from the combination of different narratives. Therefore the sophistication of the miniature in *Pit* corresponds to the peculiar nature of the mensural notation in the codex, and the high standards of production place it in the ambit of an exclusive and highly intellectual cultural project.

⁷⁶ Paris, Bibliothèque Nationale, Ital. 74, f. 3v. Here Tubalcain is transformed into a monkey, perhaps over-interpreting Bonaiuto's Darwinian decision to depict him as a primitive man.

⁷⁷ Respectively at the Museo del Prado in Madrid and the Birmingham Museum of Art in Alabama.

⁷⁸ Naples, Bibl. Nazionale, ms. v.A.14, f. 47r (cf. BONI 2010). A similar, but much later image appears at the bottom of the first page of Landini's section of *Sq*, f. 121v; in this case the figure, dating from slightly after 1410, is more significant because it decorates the madrigal *Musica son che mi dolgo*, in which the personification of Music is singing (cf. MARCHI 2015, pp. 19-20).

Mediations

In the five centuries that precede the French Revolution – after which interest in searching for an inventor of music begins to wane – the widespread opinion was that Jubal, at least due to his chronological priority, was responsible for the invention of music and Pythagoras for the rationalization of harmony. The few writers who do not take Jubal into consideration (such as Vincenzo Galilei, who likewise questions the Pythagoras legend), simply do not deal with the origins of music. The rest can be distinguished between those who follow Comestor in marginalizing Pythagoras (among them the tradition stemming from *Aurora*), and those who, on the other hand, place Jubal and Pythagoras on complementary levels. In other words, the latter mediate between the proto-science of the classical tradition and the narrative element of the Bible. This group is also the one that tends to privilege the role of Pythagoras, and here we find the *Theorica musice* of Franchino Gaffurio (1492), which devotes an entire chapter (1.8) to the philosopher. The well-known woodcut inserted into the text allocates three frames to Pythagoras and only one to Jubal (adopting, moreover, the model from the *Speculum humanae salvationis*, with Jubal listening to the blacksmiths).⁷⁹

The synthesis between Christian culture and Hellenic erudition had been established as early as the encyclopedic *Speculum musicae* by Jacobus (ca. †1330) [34].⁸⁰ The theorist reaffirmed that Jubal, according to the words of Comestor, was «father of those who sing upon the cithara and organ» (1.6). Thus, he was not the inventor of musical instruments, but of harmonies, which are useful for sweetening work in the fields. After alluding to the myth of the pillars, Jacobus nevertheless recognized Pythagoras as the discoverer of musical proportions based on the weight of hammers; that is, he did not invent harmony, but he calculated its properties.

This new concept is picked up in its entirety by the English Benedictine monk Ranulf Higden in the seven books of his universal history known as *Polychronicon* [38]. The work is a collage of quotations, which are always explicitly declared. Concerning the origin of music, he returns to Comestor and Isidore but – ignorant of the *Speculum musicae* – he divests Jubal of his role in recognizing musical consonances, assigning it instead to Pythagoras (to whom he elsewhere devotes an entire chapter).

Subsequent treatises line up with one of the two positions, either Jubal together with Pythagoras or Comestor's conception, which omits the Greek philosopher. The preferred direction of musical treatises is that of two

⁷⁹ Another rare image that places Pythagoras at the center of a *Triomphe de la musique* is the woodcut (1542) of Virgil Solis, published and described in FERINO-PAGDEN 2000, p. 160.

⁸⁰ Until now he has been known as Jacques de Liège; recently Margaret BENT (2015) proposed the name «Jacobus de Ispania»; the toponymy of this is discussed in WEGMAN 2016.

founding fathers, with Jubal especially prominent in texts belonging to a more ardent Christian tradition, such as that of Johannes Gallicus [43].

The unusual position of the *Nuremberg Chronicle* by Schedel [46], already mentioned above, deserves a particular mention, as it was a history of the world modeled on the Bible that had an extraordinary visual impact due to the large number of woodcuts. Though reworking Comestor, the text does not cite either hammers or pillars, but only Jubal's desire to sweeten the pastoral activities of his blood brother Jabal (any reference to Tubalcain is lacking). Likewise eccentric is the attribution of the discovery of musical harmonies to the use of flutes of varying length by the peoples of Arcadia. Pythagoras is the second option, though derived from the erroneous authority of Diogenes Laertius. It is likely that the reference to the Arcadians is an extension of the myth of Pan, to whom tradition attributed the invention of the fistula and syrinx, the latter arising from the name of the nymph beloved by the faun.⁸¹ However, the idea that music was reborn after the flood is more frequently tied to Mercury and his invention of the lyre. In reality, Mercury was able in all the Arts, most famously represented allegorically in the wedding ceremony described by Martianus Capella. The confusion between Pan and Mercury that we find in Comestor, repeated by the *Polychronicon*,⁸² seems to be a strategy to render mythologies meaningful that would otherwise have been useless. The famous *Ms. Cooke* [42], the second oldest classical text inserted into the 'old charges' of Masonry,⁸³ recounts the story of the children of Lamech and the pillars in its discussion of the liberal arts. Nevertheless, since the work is more interested in the origins of geometry (an invention attributed to the first-born Jabal), it omits any discussion of hammers and claims:

And after this flood many years, as the chronicle telleth, these 2 pillars were found, and as the Policronicon saith, that a great clerk that [was] called Pythagoras found that one, and Hermes, the philosopher, found that other, and they taught forth the sciences that they found therein written.

(COOKE 1871, pp. 48-49)

Although here «Hermes» is the mythical Trismegistus («the philosopher»), the passage quoted from the *Polychronicon* (which draws on Comestor) refers to Mercury, who is moreover confused with Pan.⁸⁴

The rebirth of music following the flood, a story that met with little fortune, is taken up again by Franchino Gaffurio [45] in a rather cursory manner:

⁸¹ Ovid, *Metamorphoses* 1.690. The syrinx, as a primitive form of organ, is tied to the discovery of harmony. Cadmus obtains the hand of Harmony as a recompense for having helped Zeus defeat Typhon by distracting him with the sound of a syrinx (Nonnus of Panopolis, *Dionysiaca*, 1.660).

⁸² BABINGTON 1866, II, p. 376; the passage from Comestor comes from Judicium, §8 (MIGNE 1855, vol. 198, p. 1280).

⁸³ A listing can be found in HUGHAN 1872.

⁸⁴ Comestor claims that he does not know the identity of the character, or whether he was god, philosopher, or something else (*Judges*, VIII: «Incertus est autem qui fuerit iste Mercurius», in MIGNE 1955, vol. 198, p. 1280). Also in *Polychronicon*, II (BABINGTON 1866, II, p. 376).

... after the flood, posterity discovered these [inscriptions] and put them into practice. [1.8]

Gioseffo Zarlino [54] is far more articulate, though he refers exclusively to Mercury, and not to Trismegistus:

But though [the science of music] was lost due to the flood, it was discovered once more by Mercury, since he was (as Diodorus claims) the first to observe the movement of the stars, the harmony of song, and the proportions of numbers.

(ZARLINO 1558, p. 3)

As the reference to Diodorus' *Bibliotheca historica* (1.16) shows, Zarlino refers to sources that were different from the ones used by previous authors.

More than a century later, Angelini Bontempi [60] would recycle the role of Mercury, superimposing him onto Trismegistus:

The lyre, therefore, is that memorable instrument due to which harmonic music had its second origin. Since, as it is said, the knowledge of music was lost in the universal flood, during the inundation in the year of the world 2000. 344 years or so after the flood, when the Nile was made in Egypt, Mercury happily rediscovered music with the lyre. (BONTEMPI 1695, p. 48)

Bontempi used the *Encyclopedia* (1630) of the theologian Johann Heinrich Alsted who, in the seventh tome of his work, publishes the chronological tables of humanity. There, in the 4000 years that lie between Adam and Christ, the flood is situated in the year 1656. These same tables record, in the year 2000 (344 years later, as Bontempi says), the discoveries of Trismegistus, without, however, any reference to the lyre.

The historiographical tradition surrounding Mercury, contrary to that of Jubal, is not particularly extensive, nor does it always lead to the post-diluvian rebirth of music. Yet the god constantly reappears, since his lyre – starting with Boethius [1.20] – had four strings tuned to the same intervals as the hammers of Pythagoras.

The end of an epoch

The miniature in *Pit* is not merely one of the many representations of Lady Music, but the highest expression that the late Middle Ages managed to create for the most divine of the liberal arts. The complexity is such that only a century later the image would disappear, replaced definitively by that of Saint Cecilia or other generic female musicians.⁸⁵

⁸⁵ It is significant that, in Ripa's *Iconologia* (1593), four of the five possible representations of Lady Music correspond to just as many women, the first of whom bears, among her symbols, an anvil with hammers. The tradition, however, is so weak that the explanations of that anvil fail to mention Tubalcain and refer, erroneously, to Avicenna instead of Pythagoras. No Italian printing of Ripa offers images of Music, but only of Harmony. A picture of Lady Music is present in several foreign editions (Paris 1643, I, p. 121; Amsterdam 1698, I, 152; Augsburg 1704, pp. 111), where, however, she is not seated and there are no anvils or hammers present. Only the woodcut printed

The image in *Pit*, following the tradition begun in Martianus Capella, shows Lady Music seated on a throne. Having left behind her musical procession, she has kept one of the instruments: the organ, the noblest and most harmonic. This lady has taken the place of Jubal, since the change in sex would have better incarnated harmony, the fruit of the efforts of her maker. The divine role assigned to the lady is fortified by the identification of Jubal with Christ proposed by the *Speculum humanae salvationis*, a characterization which, at the same time, also allows her to free herself from the physical primitiveness embodied by the blacksmith in the biblical tradition. An ancestral past is preserved in the features of Tubalcain and his crude and noisy profession, the memento of an impulsive and wicked origin (i.e. the lineage of Cain) which has been left behind. Yet, at the same time, *Pit* bears witness to an image of the mechanical component of intelligence, a conception typical of the rationalism of fourteenth century culture. The power of memory, which expresses the nobility of the past, is manifest not only through individual recollections, but passes through intellectual forms of conservation. Thus the columns represent the ability to preserve both knowledge and the cleverness of deceiving God.

The subject matter of the *Pit* miniature originates in the erudite synthesis of the Christian-pagan tradition in the manner of Augustine promoted by Comestor. Yet the image is the direct heir of the poetic rendering in *Aurora*, a poem of memory; in other words, a synthesis of knowledge in its highest narrative form. At the same time, through its love for the potentially subversive science suggested by the pillars, the image is reinforced by a highly speculative sensibility that refers less to Augustine and more to a late medieval Thomistic rationalism, the same rationalism that justifies the complexities of late fourteenth century music found in *Pit*.

If the 'professionalism' of musical knowledge was identified with Jubal and the pillars, towards the end of the Quattrocento that same nobility of knowledge – helped along by the widespread reevaluation of classical culture – privileges the mathematical speculation of Pythagoras.⁸⁶ This is not a question of a true revolution, but only of a changing of forms, fruit of the thriving theoretical workshop of the late Middle Ages. Only in the late Cinquecento will such knowledge be dismantled in favor of the moralizing embrace of Cecilia, almost by chance suited to the role of godmother of music.

in Gottfried Eichler's collection (1758) is faithful to Ripa's description. Moreover, Lady Music grasps a hammer in the image published in Jean Baptiste BOUDARD (1759), whose description is also based on Ripa's.

⁸⁶ In two of the numerous commemorations dedicated to Ockeghem, Lady Music is identified as Jubal in one instance and as Pythagoras in another. The 'literary' coté of Guillaume Crétin's *Déploration* (1497) prefers Jubal (probably a *contrafactum* of *Fors seulement*, the most famous *rondeau* by Ockeghem), while Pythagoras appears in the verses of the motet *In hydraulis* (ca. 1467), the composition, of the educated musician Antoine Busnois.

Bibliography (see note 1)

- [1] BEROSUS, *Babyloniaca* [lost] (270 BC); forged fragments in NANNI 1498.
- I AD [2] NICOMACHUS GERASENUS, *Harmonikon encheiridion*; Engl. trans. *Manual of Harmonics*, ed. by Flora R. Levin, UMI, Ann Arbor, 1986; trad it. in ZANONCELLI 1990.
- [3] *Vita Adae et Evae*, ed. by Wilhelm Meyer, *Abhandlungen der Philosophisch-Historische classe der K. Bayerische Akademie der Wissenschaften*, 14 (1878), pp. 187-250; *The Old Testament pseudepigrapha*, ed. by James H. Charlesworth, 2 vols, Darton, Logman & Todd, London 1983-1985, II, pp. 249-295.
- [4] TITUS FLAVIUS JOSEPHUS, *Antiquitates Judaicae*, ed. by Louis H. Feldman, in *Flavius Josephus: Translation and commentary*, ed. by Steve Mason, 12 vols, Brill, Leiden 2000, III.
- II LUCIAN OF SAMOSATA, *Dialogue of the Gods*, in *Lucian. Volume 6*, Engl. trans. by Austin Morris Harmon, Harvard University Press, Cambridge MA and London 1913 (The Loeb Classical Library, 14); repr. 2006.
- III DIOGENES LAERTIUS, *Lives of Eminent Philosophers*, ed. by Tiziano Dorandi, Cambridge University Press, Cambridge 2013.
- PORPHYRIUS, *Vita Pythagorae*, ed. by Kenneth S. Guthrie, Platonist Press, Alpine NJ 1920.
- IV [5] IAMBlichUS, *Life of Pythagoras*, ed. by John Dillon and Jackson Hershbell, Scholars Press, Atlanta 1991.
- [6] GAUDENTIUS, *Harmonikē eisagōgē*, in ZANONCELLI 1990.
- V [7] MACROBIUS, *Commentary on the Dream of Scipio* [ca 410], ed. by William Harris Stahl, Columbia University Press, New York 1952; repr. 1966.
- MARTIANUS CAPELLA, *The marriage of Philology and Mercury*, Columbia University Press, New York 1977.
- [8] JOHANNES CASSIANUS, *Collationes*, ed. by Boniface Ramsey, Paulist Press, New York 1997.
- VI *Passio sanctae Ceciliae* [ca 500], see DELEHAYE 1936.
- SEVERINUS BOETHIUS, *De institutione arithmetica* [ca 500], ed. by Johannes Schilling and Henri Oosthout, Brepols, Turnhout 1999.
- [9] SEVERINUS BOETHIUS, *De institutione musica* [ca 510], in ID., *Fundamentals of Music*, ed. by Claude V. Palisca, Yale University Press, New Haven 1989.
- [10] FLAVIUS AURELIUS CASSIODORUS, *Institutiones divinarum et saecularium litterarum* [ca 560], in GERBERT 1784, I, pp. 15-19; Engl. trans. in *Institutiones, Book II, Chapter V*, ed. by Helen Dill Goode Gertrude C. Brake, Colorado College Music Press, Colorado Springs 1980.

- VII [11] ISIDORUS HISPALENSIS, *Etymologies* [ca 630], ed. by Stephen A. Barney, Cambridge University Press, Cambridge 2006.
- VIII BEDA VENERABILIS, *In Pentateuchum commentarii* [ca 720], in MIGNE 1855, vol. 91, pp. 189-304.
- IX [12] RABANUS MAURUS, *Commentaria in Gensim* [ca 830], in MIGNE 1855, vol. 107, pp. 443-670.
- _____ [13] AURELIANO REOMENSIS, *Musica disciplina* [ca 850] in GERBERT 1784, I, pp. 27-63; ed. by Joseph Perry Ponte III, PhD, Brandeis University, Waltham MA 1961.
- _____ [14] REMIGIUS OF AUXERRE, *Expositio super Gensim* [ca 890] in MIGNE 1855, vol. 131: pp. 51-134; ed. by Edwards Burton Van Name, Brepols, Turnhout 1999.
- X [15] REGINONE DI PRÜM, *Micrologus* [ca 900] in GERBERT 1784, I, pp. 230-247; in COUSSEMAKER 1876, II, pp. 1-73; ed. by Marie Le Roux, PhD, Catholic University of America, Washington 1965.
- _____ [16] *Suidae lexicon*, ed. by Ada Adler, 5 voll., B. G. Teubneri, Lipsiae 1928-1938.
- XI [17] GUIDO D'AREZZO, *Micrologus* [ca 1025]; Engl. trans. in PALISCA 1978.
- _____ [18] *Glossa ordinaria* [ca 1090] in MIGNE 1855, vol. 113.
- XII [19] JOHANNIS COTTO AFFLIGHEMENSIS, *De musica* [ca 1100], in GERBERT 1784, II, pp. 230-265; Engl. trans. in PALISCA 1978.
- _____ [20] HUGO DE SANCTO VICTORE, *Adnotationes elucidatoriae in Pentateuchon* (ca 1120), in MIGNE 1855, vol. 175, pp. 29-86.
- _____ HONORIUS AUGUSTODUNENSIS, *De imagine mundi* [ca 1130], in MIGNE 1855, vol. 172, pp. 119-188.
- _____ [21] *Chronacles of Jerahmeel* [ca 1150], ed. by Moses Gaster, Royal Asiatic Society, London 1899.
- _____ [22] PETRUS COMESTOR, *Historia scholastica* [ca 1170], in MIGNE 1855, vol. 198, pp. 1045-1720; It. trans. *Lezioni scritturali ... sopra l'uno e l'altro Testamento*, ed. by Pompeo Sarnelli, Antonio Bortoli, Venezia 1705.
- _____ ALANUS AB INSULIS, *Anticlaudianus* [ca 1185], ed. by James J. Sheridan, Pontifical Institute of Mediaeval Studies, Toronto 1973.
- XIII [23] PETRUS RIGA, *Aurora* [ca 1200], ed. by Paul E. Beichner, 2 voll., Univ. of Notre Dame Press, Notre Dame 1965.
- _____ [24] MATTHEW PARIS, *Chronica majora* [ca 1240], ed. by H. R. Luard, 7 voll., H. M. Stationery, London 1872-1884.
- _____ [25] MATHEW OF WESTMINSTER [attr.], *Flores historiarum* [ca 1250], ed. by H. R. Luard, 3 voll., H. M. Stationery, London 1890.

- [26] VINCENT DE BEAUVAIS, *Speculus maius* [ca 1250], esp. *Doctrinale*, XXVII, § 10-35 [De musica], in *Vinzenz von Beauvais ... und sein Musiktraktat im Speculum*, ed. by Gottfried Göller, Gustav Bosse, Regensburg 1959, pp. 86-118.
- [27] *Story of Genesis* [ca 1250], in MORRIS 1865.
- [28] MAGISTER LAMBERTUS, *Tractatus de musica* [ca 1270], in COUSSEMAKER 1876, I, pp. 251-281.
- [29] JOHANNES AEGIDIUS [Juan Gill] DE ZAMORA, *Ars musica* [ca 1275], in GERBERT 1784, II, pp. 369-393; ed. by Michel Robert-Tissot, American Institute of Musicology, Roma 1974.
- [30] HIERONYMUS DE MORAVIA, *Tractatus de musica* [ca 1280], in COUSSEMAKER 1876, I, pp. 1-94; ed. by Simon M. Cserba, 2 voll., F. Pustet, Regensburg 1935.
- [31] ALFONSO X, *General estoria* [ca 1285], ed. by Pedro Sanchez-Prieto Borja, 6 parts, Fundacion José Antonio de Castro, Madrid 2001; 2009.
- XIV [32] *Cursor mundi* [ca 1300], ed. by Richard Morris, 7 vols, N. Trubner, London 1874-1893.
- [33] *Speculum humanae salvationis* [ca 1310], in WILSON 1984.
- [34] JACOBUS, *Speculum musicae* [ca 1320], ed. by Roger Bragard, 7 vols, American Institute of Musicology, Roma 1955.
- [35] HUGO SPECHTSHART VON REUTLINGEN, *Flores musicae omnis cantus Gregoriani*, in KARL-WERNER GÜMPEL, *Hugo Spechtshart von Reutlingen: Flores musicae (1332-42)*, «Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse», 3 (1958), pp. 51-177.
- [36] BARTOLOMEO DE' BARTOLI, *Canzone delle virtù e delle scienze* [ca 1355], in DOREZ 1904.
- [37] CONVENEVOLE DA PRATO, *Regia Carmina* [ca 1360], in GRASSI 1982; in MARCHIONNI 2010.
- [38] RANULF HIGDEN, *Polychronicon* [ca 1360], in BABINGTON 1866.
- [39] GEOFFREY CHAUCER, *The Book of the Duchess* (ca 1370), ed. by Helen Phillips, Durham and St. Andrews Medieval Texts, Durham 1982.
- XV [40] GINO CAPPONI, *Commentari ... dell'acquisto ovvero presa di Pisa seguita l'anno 1406*, in LODOVICO ANTONIO MURATORI, *Rerum Italicarum scriptores*, vol. 18, Ex typographia Societatis Palatinae, Mediolani 1731, pp. 1127-1148.
- [41] *Chansons italien en musique* [ca 1380-1410], ms., Paris, Bibliothèque Nationale, It. 568.
- [42] *De origine et effectu musicæ* [ca 1420], in GILBERT REANEY, *The Anonymous Treatise 'De origine et effectu musicae', An Early 15th*

- Century Commonplace Book of Music Theory, «Musica Disciplina», 37 (1983), pp. 101-119.
- [42] Cooke's manuscript [ca 1440], in COOKE 1861.
- [43] JOHANNES GALLICUS, *De ritu canendi vetustissimo et novo* [ca 1450], ed. by Albert Seay, 2 vols, Colorado College Music Press, Colorado Springs 1981.
- ANTOINE BUSNOIS, *In hydraulis* [1467], in *Antoine Busnoys Collected Works*, ed. by Richard Taruskin, Broude Brothers, New York 1990 (Masters and Monuments of the Renaissance, 5).
- [44] ADAM VON FULDA, *De musica* (ca 1480), in GERBERT 1784, III, pp. 329-381.
- 1492 [45] FRANCHINUS GAFFURIUS, *Theorica musicae*, Ph. Mantegatium & Io. Petri de Lomatio, Mediolani; Engl. trans. *The Theory of Music*, ed. by Claude V. Palisca, Yale University Press, New Haven 1993.
- 1493 [46] HARTMANN SCHEDEL, *Liber chronicarum*, Nürnberg; facs. *The Nurenberg Chronicle*, Landmark, New York 1979.
- 1495 [47] GUILLERMO DE PODIO, *Ars musicorum*, Petrum Hagenbach & Leonardum Hutz, Valencia.
- 1497 GUILLAUME CRETIN, *Déploration sur le trépas de Jean Okeghem*, ed. by Ernest Thoinan [alias Antoine-Ernest Roquet], Claudin, Paris 1864.
- 1498 GIOVANNI NANNI, *Commentaria fratris Joannis Annii Viterbiensis super opera diversorum auctorum de antiquitatibus loquentium* [*Antiquitatum variarum*], Eucharius Silber, Roma; It. trans. *Le antichità di Beroso Caldeo sacerdote, et d'altri scrittori*, ed. by Francesco Sansovino, Altobello Salicato, Venezia 1583.
- 1502 [48] *L'art, science & pratique de plaine musique*, Veuve de Jehan Trepperel, Paris; in BRENET 1907.
- 1503 [49] GREGOR REISCH, *Margarita philosophica*, Joannem Schottum Argen., Friburgi; ed. by Lutz Geldsetzer Stern-Verlag Janssen, Düsseldorf 1973; It. trans. Iacomo Antonio Somascho, Venezia 1599.
- 1508 [50] *Mistère du Viel Testament*, Pierre Le Dru, Paris; ed. by James de Rothschild, 6 vols, Firmin-Didot, Paris 1878-1891.
- 1508 [51] NICOLAUS WOLLIK, *Enchiridion musices ... de gregoriana et figurativa atque contrapuncto simplici percommode tractans omnibus cantu obiectantibus perutile et necessarium*, Iehan Petit, Parisiis.
- 1511 [52] SEBASTIAN VIRDUNG, *Musica getutscht und ausgezogen*, M. Furter, Basel; ed. by Beth Bullard, Cambridge University Press, Cambridge 1993.
- 1523 [53] PIETRO ARON, *Thoscanello de la musica*, Bernardino et Mattheo de Vitali, Venezia.

- VIRGIL SOLIS, [*Pythagore et le triomphe de la musique*], in FERINO-PAGDEN 2000, p. 160 [n. II.3].
- 1555 PAOLO GIOVIO, *Dialogo dell'impresie militari et amoroze*, Antonio Barré, Roma; ed. by Maria Luisa Doglio, Bulzoni, Roma 1978.
- 1558 [54] GIOSEFFO ZARLINO, *Le istituzioni harmoniche ...*, Pietro da Fino, Venezia.
- 1562 BATTISTA PITTONI, *Impresie di diversi prencipi, duchi, signori, e d'altri personaggi et huomini letterati et illustri. Con alcune stanze del Dolce che dichiarano i motti di esse impresie*, Pittoni, Venezia.
- 1566 GIROLAMO RUSCELLI, *Le impresie illustri con espositioni, et discorsi ... in tre libri*, Damiano Zenaro, Venezia.
- 1581 [55] VINCENZO GALILEI, *Dialogo ... della musica antica et della moderna*, Giorgio Marescotti, Firenze.
- 1589 VINCENZO GALILEI, *Discorso ... intorno all'opere di messer Gioseffo Zarlino da Chioggia, et altri importanti particolari attenenti alla musica*, Giorgio Marescotti, Firenze.
- 1592 GIULIO CESARE CAPACCIO, *Delle impresie trattato*, 3 vols, Gio. Giacomo Carlino, Antonio Pace, Napoli; repr. Graphotronic, Napoli 1988.
- 1594 TORQUATO TASSO, *Dialogo dell'impresie*, ad instantia di Paolo Venturini, Napoli.
- 1601 JACOB TYPOT, *Symbola divina & humana pontificum imperatorum regum*, 3 vols, Egidius Sadeler, Praga.
- 1613 [56] PEDRO CERONE, *El Melopeo y maestro. Tractado de musica theorica y pratica*, J. B. Gargano, Napoles.
- 1623 GIOVANNI FERRO, *Teatro d'impresie ... all'ill.mo e r.mo cardinal Barberino*, Giacomo Sarzina, Venezia.
- [57] MARIN MERSENNE, *Quaestiones celeberrimae in Genesim ...*, Sebastiani Cramoisy, Lutetiae Parisiorum.
- ANGELO PORTENARI, *Della felicità di Padova ... libri nove nelli quali ... si raccontano gli antichi e moderni suoi pregi et honori ...*, Pietro Paolo Tozzi, Padova.
- 1630 JOHANN HEINRICH ALSTED, *Encyclopaedia septem tomis distincta*, Herbornae Nassoviorum [Herborn].
- 1650 [58] SEVERO BONINI, *Discorsi e regole sopra la musica et il contrappunto*, in *Severo Bonini's 'Discorsi e regole': A Bilingual Edition*, ed. by MaryAnn Bonino, Brigham Young University, Provo UT 1979.
- 1671 [59] GIULIO CESARE MARINELLI, *Via retta della voce corale, ovvero Osservationi intorno al retto exercitio del canto fermo ...*, Giacomo Monti, Bologna.

- 1679 PIERRE-DANIEL HUET, *Demonstratio evangelica ad serenissimum Delphinum*, Stephanum Michallet, Parisiis.
- 1695 [60] GIOVANNI ANDREA ANGELINI BONTEMPI, *Historia musica nella quale si ha piena cognizione della teorica e della pratica antica ...*, Costantini, Perugia; ed. by Biancamaria Brumana, Ut Orpheus, Bologna 2010.
- 1702 [61] DOMENICO SCORPIONE, *Riflessioni armoniche divise in due libri ...*, De Bonis, Napoli.
- 1705 FRIEDRICH LUCAE, *Des Heil. Römischen Reichs uhr-alter Fürsten-Saal ...*, Knoch, Franckfurt am Mayn.
- 1706 [62] ZACCARIA TEVO, *Il musico testore*, Antonio Bortoli, Venezia.
- 1715 [63] JACQUES BONNET [Pierre Bourdelot], *Histoire de la musique et de ses effets depuis son origine jusqu'à present*, Cochart, Paris.
- 1757 [64] GAIMBATTISTA MARTINI, *Storia della musica*, 3 vols, Lelio della Volpe, Bologna 1757-1781.
- 1758 GOTTFRIED EICHLER, [*Historiae et allegoriae*] *Pars I.[-X.] des berühmten italiänische Ritters Caesaris Ripae, allerley Künsten und Wissenschaften dienlicher Sinnbildern und Gedancken: welchen jedesmahlen eine hierzu taugliche Historia oder Gleichnis bejgefüget*, Joh. Georg Hertel, Augspurg.
- 1759 JEAN-BENJAMIN BOUDARD, *Iconologie tirée de divers auteurs. Ouvrage utile aux gens de lettres, aux poètes, aux artistes*, Imprimerie de Philippe Carmignani, Parme.
- 1781 [65] JEAN-BENJAMIN DE LA BORDE, *Essai sur la musique ancienne et moderne*, 4 vols, Philippe-Denys Pierres et Eugène Onfroy, Paris 1780-1781.
- 1784 MARTIN GERBERT, *Scriptores ecclesiastici de musica*, 3 vols, Tipis San Blasianis, St. Blasien.
- 1827 *FRANÇOIS FETIS, *Découverte de manuscrits intéressans pour l'histoire de la musique*, «Revue musicale», 1, pp. 3-11, 106-113.
- 1829 RAPHAEL GEORG KIESEWETTER, *Die Verdienste der Niederländer um die Tonkunst, in Verhandelingen over de vraag welke verdiensten hebben zich de Nederlanders vooral in de 14^o 15^o en 16^o eeuw in het vak der toonkunst verworven*, J. Muller en Comp., Amsterdam, pp. 1-30.
- 1838 *ANTONIO MARSAND, *I manoscritti italiani della Regia biblioteca parigina descritti ed illustrati*, 2 vols, Stamperia reale, Parigi 1835-1838.
- 1845 FRIEDRICH KORN, *Etymologisch-symbolisch-mythologisches Real-Wörterbuch*, 4 vols, Cast, Stuttgart 1843-1845.
- 1847 **Poesie italiane inedite di dugento autori. Dall'origine della lingua infino al secolo decimosettimo*, ed. by Francesco Trucchi, 4 vols, Ranieri Guasti, Prato 1846-1847.

- 1855 *Patrologia latina cursus completus*, ed. by Jacques-Paul Migne, 221 vols, Garnier, Paris 1844-55; indexes: 1862-66.
- 1858 SAMUEL FALES DUNLAP, *Vestiges of the Spirit-History of man*, D. Appleton, New York 1858.
- 1861 MATTHEW COOKE, *The History and Articles of Masonry*, Richard Spencer, London.
- 1865 *The Story of Genesis and Exodus. An early English song about a.D. 1250 edited from a unique Ms. in the library of Corpus Christi College, Cambridge*, ed. by Richard Morris, Trübner & Co., London; «revised ed.» *ibidem* 1896.
- 1866 *Polychronicon ... together with the English translation of John of Trevisa and of an unknown writer in the 15th century*, 9 vols, ed. by C. Babington [1-2], J. R. Lumby [3-9], Longman, London 1865-1866.
- 1870 *GIOSUÈ CARDUCCI, *Musica e poesia nel mondo elegante italiano del secolo XIV*, «Nuova antologia», 14, pp. 461-482; 15, pp. 5-30; repr. in *Studi letterari*, Francesco Vigo, Livorno 1874, pp. 373-447; in *Opere*, 20 vols, Zanichelli, Bologna 1889-1909, VIII: *Studi letterari* (1893), pp. 301-397.
- 1871 POMPEO LITTA, *Famiglie celebri italiane. Capponi di Firenze*, 22 tab., L. Bassadonna, Milano 1870-1871.
- 1872 MARGARET GATTY, *A Book of Emblems, with interpretations thereof*, Bell and Daldy, London.
- WILLIAM JAMES HUGHAN, *The Old Charges of British Freemasons*, Simpkin, London.
- 1876 CHARLES EDMOND HENRI DE COUSSEMAKER, *Scriptorum de musica medii aevi novam seriem a Gerbertina alteram collegit*, 4 vols, A. Durand, Paris 1864-1876.
- 1881 LEOPOLD VICTOR DELISLE, *Le cabinet des manuscrits de la Bibliothèque impériale*, 4 vols, Imprimerie Impériale et Nationale, Paris 1868-1881.
- 1888 *GIUSEPPE MAZZATINTI, *Inventario dei manoscritti italiani delle biblioteche di Francia*, 3 vols, Bencini, Roma 1886-1888.
- 1896 JULIUS VON SCHLOSSER, *Giusto's Fresken in Padua und die Vorläufer der Stanza della Segnatura*, «Jahrbuch der kunsthistorischen Sammlungen des hallerhöchsten Keiserhauser», 17, pp. 13-100.
- 1899 KARL VON JAN, *Musici scriptores Graeci*, 2 vols, B. G. Teubneri, Lipsiae 1895-1899.
- 1902 PAOLO D'ANCONA, *Le rappresentazioni allegoriche delle arti liberali nel Medioevo e nel Rinascimento*, «L'arte: Rivista di storia dell'arte medievale e moderna», 5, pp. 137-156, 211-228, 269-289.
- JULIUS VON SCHLOSSER, *Giustos Augustinuskapelle und das Lehrgedicht des Bartolommeo de' Bartoli von Bologna*, «Jahrbuch der

- kunsthistorischen Sammlungen des hallerhöchsten Keiserhauser», 23, pp. 327-338.
- ADOLFO VENTURI, *Il libro di Giusto per la Cappella degli Eremitani in Padova*, «Le gallerie nazionali italiane», 4 (1899), pp. 345-376; 5 (1902), pp. 391-392 + 30 tabs.
- 1903 *FRIEDRICH LUDWIG, *Die mehrstimmige Musik des 14. Jahrhunderts*, «Sammelbände der Internationalen Musikgesellschaft», 4 (1902-1903), pp. 16-69.
- 1904 *La canzone delle virtù e delle scienze di Bartolomeo di Bartoli da Bologna*, ed. by Leone Dorez, Istituto Italiano d'Arti Grafiche, Bergamo.
- *JOHANNES WOLF, *Geschichte der Mensural-Notation von 1250-1460. Nach den theoretischen und praktischen Quellen*, Breitkopf & Hartel, Leipzig.
- 1905 *FRIEDRICH LUDWIG, [review to WOLF 1904], «Sammelbände der Internationalen Musikgesellschaft», 6 (1904-1905), pp. 597-641.
- 1907 MICHEL BRENET, *La plus ancienne méthode française de musique. Reimpression de 'L'art, science et pratique de plaine musique' avec introduction et appendice*, «La tribune de Saint-Gervais», 3, pp. 73-80, 111-114, 131-137, 158-163, 185-188, 204-209.
- 1911 FRANCESCO FILIPPINI, *Andrea da Bologna miniatore e pittore del secolo XIV*, «Bollettino d'Arte», 5, pp. 50-62.
- 1916 JACOPO GELLI, *Divise, motti e imprese di famiglie e personaggi italiani*, U. Hoepli, Milano; repr. 1928.
- 1925 JESÚS DOMINGUEZ BORDONA, *Miniaturas Boloñesas del siglo XIV. Tres obras desconocidas de Nicolò da Bologna*, «Archivo Español de arte y arqueología», 1, pp. 177-188.
- HANS OPPERMAN, *Eine Pythagoraslegende*, «Bonner Jahrbücher», 130, pp. 284-301.
- 1929 **Guillaume de Machaut: Musikalische Werke*, ed. by Friedrich Ludwig, 3 vols, Breitkopf & Härtel, Leipzig 1926-1929; repr. + 4th vol. ed. by Heinrich Besseler, ²1954.
- 1931 FRANCESCO FILIPPINI, *Per la storia dell'antica pittura bolognese*, «Il Comune di Bologna», 18/6, pp. 3-17.
- 1934 LUIGI COLETTI, *Un affresco, due miniature e tre problemi*, «L'Arte», 37, pp. 101-121.
- 1936 HIPPOLYTE DELEHAYE, *Étude sur le légendier romain: Les saints de novembre et de décembre*, Société des Bollandistes, Bruxelles; repr. 1968.
- 1937 KARL YOUNG, *Chaucer and Peter Riga*, «Speculum», 12/3, pp. 299-303.

- 1950 **French Secular Music of the Late Fourteenth Century*, ed. by Willi Apel, Robert W. Linker and Urban T. Holmes jr, foreword by Paul Hindemith, Mediaeval Academy of America, Cambridge MA.
- 1951 *NINO PIRROTTA – ETTORE LI GOTTI, *Il codice di Lucca*, «Musica Disciplina», 3 (1949), pp. 119-138; 4 (1950), pp. 111-152; 5 (1951), pp. 115-142.
- 1952 *NINO PIRROTTA – ETTORE LI GOTTI, *Paolo Tenorista, Fiorentino extra moenia*, in *Estudios dedicados a Menéndez Pidal*, 7 vols, CSIC - Patronato Marcelino Menéndez y Pelayo, Madrid 1950-1962, III (1952), pp. 577-606.
- 1954 PAUL E. BEICHNER, *Medieval Representative of Music, Jubal or Tubalcain?*, The Mediaeval Institute, Notre Dame IN.
- 1956 *KURT VON FISCHER, *Studien zur italienischen Musik des Trecento und frühen Quattrocento*, P. Haupt, Bern.
- 1957 MIRELLA LEVI D'ANCONA, *Don Silvestro dei Gherarducci e il maestro delle canzoni: Due miniatori trecenteschi della Scuola di S. Maria degli Angeli a Firenze*, «Rivista d'Arte», 32, pp. 3-37.
- 1958 FANZ BLATT, *The Latin Josephus. Antiquities. I-V. Introduction and text*, Aarhus, Copenhagen.
- 1960 *GILBERT REANEY, *The Manuscript Paris, Bibliothèque Nationale, Fonds Italien 568 (Pit)*, «Musica Disciplina», 14, pp. 33-63.
- 1961 MIRELLA LEVI D'ANCONA, *Bartolomeo di Fruosino*, «The Art Bulletin», 22, pp. 81-97.
- *NINO PIRROTTA, *Paolo Tenorista in a New Fragment of the Italian 'Ars Nova': A facsimile edition of an early 15th-century manuscript now in the library of Professor Edward E. Lowinsky, Berkeley California*, Gottlieb, Palm Springs.
- 1962 *BIANCA BECHERINI, *Antonio Squarcialupi e il codice Mediceo Palatino 87*, in *L'Ars nova italiana del Trecento*, Centro di studi sull'Ars nova italiana, Certaldo, pp. 141-96.
- *ALBERT SEAY, *Paolo da Firenze: a Trecento Theorist*, in *L'Ars nova italiana del Trecento*, Centro di studi sull'Ars nova italiana, Certaldo, pp. 118-140.
- 1964 JOHN M. STEADMAN, *The 'Inharmonious Blacksmith': Spenser and the Pythagoras Legend*, «PMLA», 79/5, pp. 664-665.
- 1965 *Aurora: Petri Rigae biblia versificata: A verse commentary on the Bible*, ed. by Paul E. Beichner, 2 vols, University of Notre Dame Press, Notre Dame IN.
- 1966 *URSULA GÜNTHER, *Die 'anonimen' Kompositionen des Manuscripts Paris B.N., fonds it. 568 (Pit)*, «Archiv für Musikwissenschaft», 23, pp. 73-92.

- 1967 *URSULA GÜNTHER, *Zur Datierung des Madrigals 'Godi, Firenze' und der Handschrift Paris, B.N., fonds it. 568 (Pit)*, «Archiv für Musikwissenschaft», 24/2, pp. 99-119.
- 1968 *KURT VON FISCHER, *Paolo da Firenze und der Squarcialupi Kodex (I-Fl 87)*, «Quadrivium», 9, pp. 5-24.
- 1970 *Poesie musicali del Trecento*, ed. by Giuseppe Corsi, Commissione per i testi di lingua, Bologna.
- 1974 ELLEN CALLMANN, *Apollonio di Giovanni*, Clarendon, Oxford.
- 1972 SERENELLA BALDELLI CHERUBINI, *I manoscritti della biblioteca fiorentina di S. Maria degli Angeli attraverso i suoi inventari*, «La bibliofilia», 74, pp. 9-47.
- *Paris, Bibliothèque Nationale, Ms. fonds ital. 568, in *Handschriften mit mehrstimmiger Musik des 14., 15. und 16. Jahrhunderts. Austria bis France*, ed. by Kurt von Fischer, Max Lütolf, Henle, München (RISM), pp. 436-485.
- 1973 FRANK D'ACCONTE, *Music and Musicians at Santa Maria del Fiore in the Early Quattrocento*, in *Scritti in onore di Luigi Ronga*, Ricciardi, Milano-Napoli, pp. 99-126.
- GERHARD SCHMIDT, 'Andrea me pinsit'. *Frühe Miniaturen von Nicolò di Giacomo und Andrea de' Bartoli in dem bologneser Oziolo der Stiftsbibliothek Kremsmünster*, «Wiener Jahrbuch für Kunstgeschichte», 36, pp. 57-73.
- 1974 JUDITH COHEN, *Jubal in the Middle Ages*, in *Yuval: Studies of the Jewish Music Research Centre. III*, ed. by Istraël Adler, The Magnes Press, Jerusalem, pp. 83-99.
- 1978 MARIELLA LEVI D'ANCONA, *I corali di Santa Maria degli Angeli ora nella Biblioteca Laurenziana e le miniature da essi asportate*, in *Miscellanea di studi in memoria di Anna Saitta Revignas*, Olschki, Firenze, pp. 213-235.
- JAMES W. MCKINNON, *Jubal vel Pythagoras, quis sit inventor musicae?*, «The Musical Quarterly», 64/1, pp. 1-28.
- *Hucbald, Guido, and John on Music: Three medieval treatises*, ed. by Claude V. Palisca, Yale University Press, New Haven.
- 1980 THOMAS CONNOLLY, *The Legend of St. Cecilia. I: The origins of the cult – II: Music and the symbolism of verginity*, «Studi musicali», 7/1 (1978), pp. 3-38; 9/1 (1980), pp. 3-44.
- 1981 LETIZIA LODI, *Problemi iconologici di un pittore ferrarese del XIV secolo*, in *Cultura figurativa ferrarese tra XV e XVI secolo*, Corbo e Fiore, Venezia.

- 1982 *Convenevole da Prato, Regia carmina: dedicati a Roberto d'Angiò, re di Sicilia e di Gerusalemme*, ed. by Cesare Grassi, Marco Ciatti, Aldo Petri, 2 vols, Silvana editoriale, Cinisello Balsamo.
- 1983 THOMAS CONNOLLY, *The Cult and Iconography of St. Cecilia before Raphael*, in *Indagini per un dipinto. La santa Cecilia di Raffaello*, Alfa editoriale, Bologna, pp. 228-234.
- 1984 LUCIANO BELLOSI, *Due note in margine a Lorenzo Monaco miniatore: il 'Maestro del Codice Squarcialupi' e il poco probabile Matteo Torelli*, in *Studi di storia dell'arte in memoria di Mario Rotili*, 2 vols, Banca Sannitica, Napoli, pp. 307-314; repr. in ID., *Come un prato fiorito. Studi sull'arte tardogotica*, Jaca Book, Milano 2000, pp. 55-61.
- HOWARD MAYER BROWN, *St. Augustine, Lady Music, and the Gittern in Fourteenth-Century Italy*, «Musica Disciplina», 38, pp. 25-65.
- ADRIAN WILSON – JOYCE LANCASTER WILSON, *A Medieval Mirror: Speculum Humanae Salvationis 1324-1500*, University of California Press, Berkeley.
- 1986 *JOHN LOUIS NÁDAS, *The Transmission of Trecento Secular Polyphony: manuscript, production and scribal practices in Italy at the end of the Middle Ages*, UMI, Ann Arbor.
- 1987 *URSULA GÜNTHER – JOHN NÁDAS – JOHN STINSON, *Magister Dominus Paulus Abbas de Florentia: New Documentary Evidence*, «Musica Disciplina», 41, pp. 203-246.
- 1988 **Census: Catalogue of manuscript sources of polyphonic music, 1400-1550*, ed. by University of Illinois musicological archives for Renaissance manuscript studies, 5 vols, Hänssler-Verlag, Neuhausen-Stuttgart 1979-1988.
- TILMAN SEEBASS, *Lady Music and her protégés, from musical allegory to musicians' portraits*, «Musica Disciplina», 42, pp. 21-61.
- 1989 *JOHN LOUIS NÁDAS, *The Songs of don Paolo Tenorista: The manuscript tradition*, in *In cantu et in sermone: for Nino Pirrotta*, ed. by Fabrizio Della Seta and Franco Piperno, Olschki, Firenze, pp. 41-64.
- 1990 LUISA ZANONCELLI, *La manualistica musicale greca: Euclide, Cleonide, Nicomaco, Excerpta Nicomachi, Bacchio il Vecchio, Gaudenzio, Alipio, Excerpta Neapolitana*, Guerini studio, Milano 1990.
- 1992 *LUCIANO BELLOSI, *Il mestro del codice Squarcialupi*, in GALLO 1992, pp. 145-157.
- [GALLO] *Il codice Squarcialupi. Ms. Palatino 87, Biblioteca Medicea Laurenziana di Firenze*, ed. Alberto Gallo, Giunti Barbèra, Firenze; LIM, Lucca.
- *La pinacoteca nazionale di Ferrara. Catalogo generale*, ed. by Jadranka Bentini, intr. by Andrea Emiliani, Cassa di Risparmio Ferrara - Nuova Alfa editoriale, Bologna.

- _____ *JOHN LOUIS NÁDAS, *Il codice Squarcialupi: Una 'edizione' della musica del Trecento (ca 1410-1415)*, in GALLO 1992, pp. 19-86.
- 1993 GEORGE R. BENT, *Santa Maria degli Angeli and the Arts. Patronage, production, and practice in a Trecento Florentine monastery*, 2 vols, PhD, Stanford University Press, Stanford.
- 1994 THOMAS CONNOLLY, *Mourning into Joy. Music, Raphael and Saint Cecilia*, Yale University Press, New Haven.
- _____ MIRELLA LEVI D'ANCONA, *The Choir Books of Santa Maria degli Angeli in Florence*, 2 vols, Centro Di, Florence.
- _____ GAUDENZ FREULER (and LUIGI ARTINI), *Bartolo di Fredi Cini: ein Beitrag zur sienesischen Malerei des 14. Jarhunderts*, Desertina, Disentis.
- 1995 GABRIELE FRINGS, *Dosso Dossis 'Allegorie der Musik' und die Tradition des 'inventor musicae' in Mittelalter und Renaissance*, «Imago musicae», 9-12 (1992-1995), pp. 159-203.
- _____ DOROTHEE HANSEN, *Das Bild des Ordenslehrers und die Allegorie des Wissens. Ein gemaltes Programm der Augustiner*, Akademie, Berlin.
- _____ *I corali del Monastero di Santa Maria degli Angeli e le loro miniature asportate*, exhibition catalogue, Firenze, Bibl. Laurenziana, 15.VI-31.VII.1995, ed. by Mirella Levi D'Ancona, Centro Di, Firenze.
- _____ ROBERT W. SCHELLER, *Exemplum. Model-book drawings and the practice of artistic transmission in the Middle Ages: ca. 900 - ca. 1470*, Amsterdam University Press, Amsterdam.
- 1996 a) SILVIA DE LAUDE, *Una canzone di Bruzio Visconti, Fazio degli Uberti e un ritratto poco serio*, «Filologia e critica», 21, pp. 96-110.
- _____ b) SILVIA DE LAUDE, *La 'spola' di Bartolomeo de' Bartoli. Sull'esperimento metrico di una canzone illustrata del Trecento*, «Anticomoderno», 2, pp. 201-217.
- 1997 GAUDENZ FREULER, *A critical and historical corpus of Florentine painting. IV/7.2: Tendencies of the Gothic in Florence: Don Silvestro dei Gherarducci*, Giunti, Florence.
- 1998 SILVIA DE LAUDE, *Uno stemma per parole e immagini: intorno alla Canzone delle virtù e delle scienze di Bartolomeo de' Bartoli*, in *Atti del XXI congresso internazionale di linguistica e filologia romanza (Palermo 1995). VI: Edizione e analisi linguistica dei testi letterari e documentari del Medioevo*, ed. by Giovanni Ruffino, Niemeyer, Tübingen, pp. 95-111.
- _____ CAROL MEYERS, *Mother to Muse: An archaeomusicological study of women's performance in ancient Israel*, in *Recycling Biblical Figures: Papers read at a Noster colloquium in Amsterdam, 12-13 May 1997*, ed. by Athalya Brenner, Jan Willem van Henten, DEO, Leiden, pp. 50-77.

- 1999 AGOSTINO CASU, *'Translata proficit arbos'. Le imprese 'eteree' nelle 'Rime' del Tasso*, «Italiq», 2, pp. 81-111.
- 2000 *Dipingere la musica: Strumenti in posa nell'arte del Cinque e Seicento*, ed. by Sylvia Ferino-Pagden, Skira, Milano.
- VOLKER SCHERLIESS, *Santa Cecilia. Da martire a patrona della musica*, in FERINO-PAGDEN 2000, pp. 59-64.
- PATRICIA STIRNEMANN, *Bartolomeo di Bartoli: La canzone delle virtù e delle scienze*, in *Enluminure Italienne: Chefs d'œuvre du Musée Condé*, Somogy Éditions D'Art, Chantilly, pp. 12-17.
- 2001 RODOLFO BARONCINI, *L'immagine di santa Cecilia prima e dopo Raffaello: Percorsi iconografici e trasformazioni tematiche*, in *Colori della musica. Dipinti, strumenti e concerti tra Cinquecento e Seicento*, ed. by Annalisa Bini, Claudio Strinati and Rossella Vodret, Skira, Roma, pp. 35-45.
- DAVID FALLOWS, *Paolo da Firenze*, in *Grove Music Online*, Oxford University Press, Oxford, s.v.
- *KURT VON FISCHER – GIANLUCA D'AGOSTINO, *VIII. Italian polyphony, c1325–c1420*, in *Grove Music Online*, Oxford University Press, Oxford, s.v. *Sources ms*.
- BRUCE W. HOLSINGER, *Music, body, and desire in medieval culture. Hildegard of Bingen to Chaucer*, Stanford University Press, Stanford CA.
- 2002 NICO STAITI, *Le metamorfosi di santa Cecilia. L'immagine e la musica*, LIM, Lucca.
- 2003 MILVA BOLLATI, [description of ms.: Milano, Bibl. Ambrosiana, B 42 inf.], in *I corali di San Giacomo Maggiore: Miniatori e committenti a Bologna nel Trecento*, ed. by Giancarlo Benevolo and Massimo Medica, Edisai, Ferrara, pp. 181-186.
- BJÖRN R. TARNNTEN, *Lebenswelten eines mittelalterlichen Bildmotivs: Jubal und Tubalkain in den Illustrationen zu Bibel, Weltchronik und 'Speculum humanae salvationis'*, «Musicologica Austriaca», 22, pp. 103-134.
- 2004 *Dizionario biografico dei miniatori italiani*, ed. by Milvia Bollati, Sylvestre Bonnard, Milano.
- JEAN-MARIE FRITZ, *Translatio studii et déluge. La légende des colonnes de marbre et de brique*, «Cahiers de civilisation médiévale», 47, pp. 127-151.
- PEDRO MEMELSDORFF, *Siena 36 rivisitata: Paolo da Firenze, Johannes Ciconia, e l'interrelazione di polifonia e trattatistica in fonti del primo Quattrocento*, «Acta Musicologica», 76/2, pp. 159-191.
- MICHAEL STOLZ, *Artes-liberales-Zyklen: Formationen des Wissens im Mittelalter*, 2 vols, A. Francke, Tübingen.

- CONVENEVOLE DA PRATO, *Regia carmina: panegirico in onore di Roberto d'Angiò*, ed. by Lorenzo Tanzini, 2 vols, UTET, Torino.
- 2006 CHRISTIANE L. JOOST-GAUGIER, *Measuring Heaven. Pythagoras and his influence on thought and art in antiquity and the Middle Ages*, Cornell university Press, Ithaca NY.
- ALEXANDER TOEPEL, *Yonton revisited. A case study in the reception of Hellenistic science within early Judaism*, «The Harvard Theological Review», 99/3, pp. 235-245.
- 2010 VINCENZO BONI, *Lezioni di musica. Il Boezio napoletano (Napoli, Biblioteca Nazionale Vittorio Emanuele III, ms. V.A.14)*, «Alumina. Pagine miniate», 29, pp. 16-23.
- WILLIAM J. GIBBONS, *Illuminating Florence. Revisiting of the composer portraits of the Squarcialupi codex*, «Imago Musicae», 23 (2006-2010), pp. 25-45.
- *Das Lobgedicht auf König Robert von Anjou*, ed. by Roberta Marchionni, 2 vols, Akademische Druck- und Verlagsanstalt, Graz 2008-2010.
- 2012 ROBERTA BOSI, *L'Offiziolo bolognese della Biblioteca Abbaziale di Kremsmünster*, in “Conosco un ottimo storico dell'arte...” *Per Enrico Castelnovo: Scritti di allievi e amici pisani*, ed. by Maria Monica Donato and Massimo Ferretti, Edizioni della Normale, Pisa, pp. 131-140.
- 2013 VITTORIA CAMELLITI, *La temperanza di Palazzo Minerbi-Dal Sale a Ferrara: Riflessioni sulla trasmissione di una tipologia iconografica*, «Rivista di storia della miniatura», 17, pp. 122-136.
- LEA DEBERNARDI, *Regia carmina*, in *Dal Giglio al David: Arte civica a Firenze fra Medioevo e Rinascimento*, ed. by Maria Monica Donato, Daniela Parenti, Giunti, Firenze-Milano 2013, pp. 166-169.
- 2014 ALESSANDRA FIORI, *ad vocem* «Paolo da Firenze», in *Dizionario biografico degli italiani*, Istituto della Enciclopedia italiana, Roma, vol. 81, s.v.
- 2015 MARGARET BENT, *Magister Jacobus de Ispania, author of the Speculum musicae*, Ashgate, Aldershot.
- LUCIA MARCHI, *For Whom the Fire Burns. Medieval images of Saint Cecilia and music*, «Recercare», 27, pp. 5-22.
- 2016 ROB C. WEGMAN, *Jacobus de Ispania and Liège*, «Journal of the Alamire Foundation», 8, pp. 253-274.
- 2017 *DAVIDE DAOLMI, *Il modello iconografico della miniatura di Pit (F-Pn, It. 568)*, in *Studi in onore di Maria Caraci*, ed. by Angela Romagnoli, Daniele Sabaino, Rodobaldo Tibaldi and Pietro Zappalà, ETS, Pisa (forthcoming).

Davide Daolmi insegna all'Università degli Studi di Milano. Ha pubblicato, fra le altre cose, l'edizione critica delle due versioni della *Petite messe solennelle* di Rossini (Pesaro 2013) e, nell'ambito di specifici interessi per la storia culturale, *Trovatore amante spia* (Lucca 2015), lavoro in cui s'indagano i modi con cui l'Ottocento ha reinventato il Medioevo.

Davide Daolmi is professor at the University of Milan. He has published several critical editions, among which, most recently, Rossini's *Petite messe solennelle* (2013). By combining musical philology and cultural history, his last book *Trovatore amante spia* (2015), analyses some aspects of the 19th-century 'invention' of the Middle Ages.