

ASTROLABIUM

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Abstract

The author describes a yet unexplored music-manuscript from the sixteenth century which is to be found in the mixed stock of the Teleki-Bolyai Library in Târgu-Mureș. The manuscript is located in a colligate containing works from eight different scientific areas – some printed, others written by hand. The twenty pages of the musical manuscript contain thirteen unique works of different letter styles. The pieces are motets on 3-5 voices in Latin on specific renaissance vocal style. No.6 and No.9 are predominantly instrumental. The manuscript was assembled between 1520–1540, and in 1579 it was bound into the colligate.

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A 16th Century Original Musical Manuscript – Teleki-Bolyai Library –

Transylvanian libraries still hold several musical manuscripts, printings, or early books which indirectly refer to the history of music in general, and to that of Transylvanian music in particular. They also contain relevant details for the surrounding area or even for the town where the library is located. The subject of the present paper is the presentation of an original musical manuscript, which – as far as I am aware – has not been researched before, and which is now in the possession of the Teleki-Bolyai Library in Târgu-Mureş. I have had the chance in the years I was a librarian and the coordinator of the Art Section to closely examine, from a number of aspects, several documents among which is also the original manuscript *Astrolabium*.

The structure of my research is organized, for the sake of economy, into three successive parts, analyzing, as follows:

I. the physical description of the document;

II. its proper musical content;

III. finally, assumptions will be made about the presumable author or authors of the manuscript, since they still remain unidentified.

Nevertheless, a thorough work of comparative research should be called for in this case, which would also include other manuscripts or anthologies of Renaissance music, held by great European libraries. So the conclusions drawn at this stage are all hypothetical and probable, deriving from a fundamental musicological analysis. Accordingly, this paper is meant as an outline, a presentation and a musicological study, and not a definitive, concluded research.

I. Physical description of the document

The musical manuscript is in the possession of the Teleki-Bolyai Library, and it is contained, within the collections of the library, in the so-called “mixed stock”, under location number B.f 571, known as the *ASTROLABIUM*.

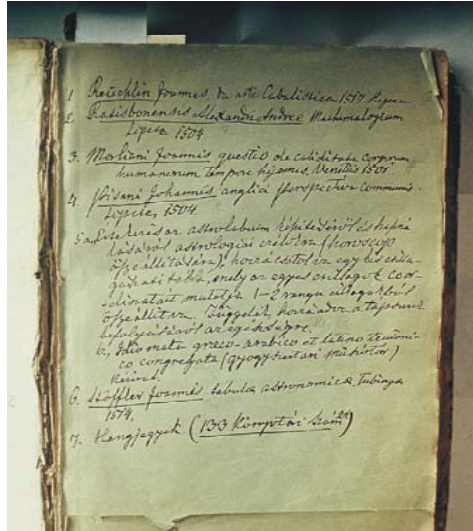
Externally, *de visu*, it is a colligate comprising eight separate, distinct works: five printed works from between 1501-1517, and three manuscripts. The first manuscript is a compilation after a work of astronomy – hence the name later attributed to the whole colligate –, and the second one is an eclectic pharmacology index, containing terms in Latin, Greek, German, and also Arabic [*graeco-arabico et latino teutonico...*].

Finally – as it is placed at the end of the colligate – we find the third, properly musical manuscript. All the works contained in the colligate will be presented below in short, as in the lack of other direct and precise data, these will serve at least as probable, indirect data about the musical manuscript.

Content:¹

1. IOANNIS REUCHLIN – *De arte cabalistica*, Hagenau, apud Thoma Anselmus, 1517 / with handwritten annotations probably by the writer of the musical manuscript, because the handwriting is extremely similar /
2. RATISBONENSIS ALEXANDRI ANDREE – *Mathemalogium*, Lipsiae, 1504 / with handwritten annotations... /
3. IOANNIS MARLIANI – *Questio de caliditate corporum humanorum tempore hyemis [& estatis & de antiparist]*, Venetiis, 1501 / octobris sic! /
4. IOANNIS PISANI – *Perspectiva anglicii communis...*, Lipsiae, 1504 / with annotations... /
5. Manuscript *ASTROLABIUM*, 15th century / with annotations... /
6. Glossary of medicines (in Greek, Latin, Arabic) / very probably a compilation after an Arabic work of pharmacology /
7. IOANNIS STÖFLER IUSTINGENSIS – *Tabula Astronomica*, Tübingen per Thoma Anselmus, 1514
8. Musical manuscript / 20 leafs containing a total of 25 pages with manually drawn stave [in ocher] and musical notes written in black ink with a pen /

¹ Although the handwritten index of the library lists 7 texts – using 5a and 5b for two separate texts – these are in fact 8 in number.



[Image: Handwritten guard-leaf added later; it is obvious that this index is compiled by a librarian living probably at the end of the 18th century. Researchers of the library claim that this person could have been József Koncz, librarian and curator of the library, but this assumption cannot be proved and/or sustained with documents.]

From the 20 leafs only 24 pages (25-1) are covered with musical notes, all the others are empty. It is possible that originally a larger collection may have been planned, since at that time paper was not uselessly wasted. The music is placed on the page after the Renaissance pattern, with the voices placed in separate blocks for each part. In general, the pitch-level of the voices is respected; *Superius* [Soprano – C-clef = line 1] – *Cantus* [Mezzo-soprano; C = 2] – *Altus* [or Countertenor; C = 3] – *Tenor I* [sometimes also Tenor II; C = 4] – *Baritonus* [F = 3] – *Bassus* [F = 4]. There are also exceptions, probably caused by the way of using the space available, and even interpolations, corrections, and additions which cause problems for deciphering and transcription.

The page numbering is multiple and problematic. Pages 1 and 2 are customarily numbered with circled numbers. Page 3 (on the verso) only contains the descant. There is no annotation as to the other possible voices, only empty staves. Page 4 (on the recto) contains no writing, but, since there are empty staves on it, it can be assumed that it should have

contained the other voices as well. For reasons unknown, these have remained unwritten.

This empty page (4) creates an alternative numbering on the pages to follow. After page 4 (the real one) comes again a page 4 (circled), then 5 (corrected from 4), 6, and 7; from page 7 (which is numbered again for the second time) pages have a double numbering: 7 (circled) with 8, 8 (circled) with 9, and so on, until 24 (circled) with 25.

The musical manuscript contains 14 vocal musical pieces, which would be rightly numbered as 13+13a, as the last one is a variant of piece no. 13. Two distinct musical handwritings can be evidently distinguished throughout the manuscript: the first, which I have called “rectangular writing”, has an ordered, structured aspect, suggesting the hand of a professional musical copyist – and probably containing pieces of other musicians. The second one, having a neater, faster, more nervous and dense, more “economic” writing, I have called “triangular writing”. (The names are clearly suggested by the drawing of the note bodies.) It seems very likely that the “possessor” of the second musical handwriting (to which, otherwise, the majority of the pieces belong) is also their author.



“Rectangular writing”



“Triangular writing”

All 20 leaves of the manuscript are made of the same type of paper, bearing a specific watermark: the so-called *Tête de boeuf*. The Bricquet catalogue – a work of reference for the watermarks of the age – indicates that the typographic mark of the *Tête de boeuf* originates from the town of Épinal, in the east of France (Lorraine), on the river Moselle, south-east of Nancy. The mark is dated 1514-1516. Unfortunately the catalogue does not name the workshop or the master who produced the paper with this mark. At the same time it should be noted that very similar watermarks in typology and size are also specific for the bordering area between France and Germany – the regions of Alsace, Lorraine, Saar – in the same period. There is, however, a whole family [with variants] of the *Tête de boeuf* watermark. Still, as the manufacturing period (1514-1516) coincides with the publication period of the printed works quoted above, there is a great probability that the paper was manufactured in the town of Épinal, and then used in Germany in the same period, in Göttingen or Tübingen.

The colligate appears *in octavo* format, bound in parchment, ornated with floral motifs in vignette. Both covers contain printed initials in capital letters on their upper halves, which probably refer to the content and/or the possessor, as frequently practiced in that age. The inscriptions are the years 1579 and 1587, the former definitely marking the year of binding in a volume, and the latter probably that of getting into the possession of M.A.R.

The provenance of the manuscript, up to the first stage I could definitely settle – presented in a reverse chronological order – is the following:

[5] – The colligate entered into the possession of the Teleki-Bolyai Library in 1962, together with all the collections of the Calvinist Gymnasium.

[4] – The Library of the Calvinist Gymnasium owned it from 1784, as attested by the Library's *ex libris* with this date; the librarian József Koncz wrote [probably] the list of the works, which is now the guard-leaf. (The volume could have arrived in the library by a donation.)

[3] – Before that, in the year 1621, it was in the possession of Nicolai Gatti, Italian doctor at the Alba Iulia Court of Prince Gábor Bethlen (historically attested by the identical title in the possessor note.)

[2] – Earlier, it belonged to Andreas Remppler – Lutheran priest at Dumitra Mare (Villa Sancti Demetrii), Bistrița district, who had bought it in Frankfurt-an-der-Oder in 1585. The M.A.R. initials printed in black

on the binding of the colligate from 1587 almost certainly mean “**Magister Andrea Remplerius**”.

[1] - **Andreea[s] Liebenthal** is the now known starting point of the journey of this colligate. He bought the book from Germany for certain and possessed it in the 7th and 8th decades of the 16th century, and bound it in its present form in 1579 [also printed on the cover].

As a parenthesis, I mention the fact that this colligate has always changed its possessor around or during important historical events of Transylvania’s past; and what is more, the fact, not at all accidental, that it has settled in great cultural and spiritual centers of Transylvania (significant also from a musical point of view), like Alba Iulia or Târgu Mureș.

These are the data which directly derive from the document. In part three of the paper I will put forward further working hypotheses as to the clarification of its fate in mid-16th century Germany. This was for the Transylvanian German spiritual area of that age the period of reference for religious, intellectual, and musical spirituality.

II. Analysis of the musical content

All the 13 musical pieces (12+12a) are vocal pieces, motets, written for a religious text in Latin. In this context, the way of this Catholic manuscript in predominantly Calvinist regions and belonging to persons of mainly Calvinist confession is most interesting. The text is incompletely and sometimes illegibly noted, either because of the then frequent practice of noting only the beginning of the verse, as the rest of the words were known to the singer, or because the author wished to make a strictly musical anthology, in which case the text would be merely informative. Another hypothesis is also possible, according to which the Calvinist owners of the manuscript were not interested in Latin canonical texts, only in the technique of vocal notation, indisputably more developed in the Catholic tradition. Whichever of these hypotheses were true, the text itself is not of much use to us; comparing the themes which are clearly affiliated with the Gregorian *cantus planus*, I have only found one single melodic profile quoted in all the 13 pieces. (Number 4, *Aeterne Deus*, compared to a contemporary edition, *Missale Romanum*, Venetiis, 1514, p. 111.).

The clefs used in notation are the typical ones: C clef on 1st, 3rd and 4th lines, and bass clef (F). However, the so-called *chiavette* also appear quite frequently: C clef on 2nd line, baritone clef, and even G clef on 3rd line. The key signature often uses B flat for key, which

theoretically indicates an Italian source (or at least an Italian stylistic model), where this practice of notation had already been standardized. The texture varies in course from 3 to 5 parts, with different tone color formulas. Most interesting are, in this respect, pieces 8, 9, and 10, which use the original formula S, A, T, B₁ and B₂, instead of the typical formula S, A, T₁, T₂, B. Otherwise, these pieces are clearly interrelated, as much in their subject matter, and polyphonic technique, as in formal structure.

The evidently vocal writing tends in some of the pieces to make use of turns or other profiles which already anticipate instrumental writing. Piece no. 6 of the manuscript proves to be very interesting from this point of view. The double exposition involves a theme which intonates a rhythmic pedal over a second agitated theme, strongly diminished to the level of sixteenth note. After two times appears a double canonic imitation at the inferior fifth. The stretto is much used in intervals varying for pitch and time. There are dialogic interpositions between the voices by short and well-outlined motifs. The overall impression is the exceeding of the modal and the tendency to tonal. It is evidently an instrumental piece at the level of the innovative tendencies of the age.

Even more interesting is piece no. 9, which, once beginning with a strict exposition in the Renaissance vocal style, quickly leaves this style frame, strongly evolving towards a vocal-concertante and even instrumental style of a Venetian origin. The frequent use of the stretto, the sequences extending to large spaces (in modules of 5 metric units!), the very strong tonal tendency make this work exceed the limits of Renaissance music. But the appearance of aspects connected to the musical psychology of the writing is even more remarkable. The alteration of polyphonic and homophonic passages in the choral creates a powerful expressive contrast. The appearance of a “dublum” in which the other three voices evolve, as a fugue, in small values, create a formal framework which could be called a (evidently incipient) variational two-part composition.

As for the musical form, with the above exception (no. 9), all the other pieces have a chain form [A, B, C, D...] characteristic for the Renaissance motet. The two final pieces evolve differently until the middle, wherefrom they continue identically. In fact, the second is a variant, an expositional alternative of the first, for which reason I have numbered them 12 and 12a.

To conclude this schematic analysis, one can say that the majority of the pieces belong to a Renaissance vocal style, except for the

two mentioned above – although tendencies to leave this framework can be found in other pieces as well. The notation is not unitary, as some of the pieces are written down in a modern way adapted to the age and the style, whereas in other pieces there are ligatures, and especially that what Willi Apel called “black” notation – already archaic in that period. It was indeed these remnants of the tradition of medieval writing which caused the greatest difficulties in the transcription, and some of the solutions which have been chosen bear varied and/or alternative interpretations, especially in matters of rhythm. Problems of decision have equally appeared in the interpretation of the changes in the cadences [as these are not noted exhaustively, but are generally implied by the practice of their execution]. Anyway, as a faithful transcription was not made possible by the score, I have mainly followed the criteria of vertical compatibility – of rhythm and interval – in the framework of the special limits of the style.

The fact that there are huge differences among the pieces, some being written down with the clumsy notation of a beginner, having even errors in leading the voices, while others prove an extraordinary mastercraft and refinement in expression, argues for the idea that what we have here is a musical anthology which contains a compendium of the art and science of composing, and at the same time more modest musical attempts.

III. Attempts for outlining a possible author’s portrait

The data presented so far allow us to insert some considerations on the author or authors of this manuscript. It is obvious that the following reasoning is nothing of a definitive conclusion, only a working hypothesis, which will be either confirmed or refuted on the basis of future research, and must be taken only as such.

What is striking in the first place is the fact that this colligate contains works of arithmetic, geometry, music, and astronomy. The reference to the old *quadrivium* of the medieval university is very direct. Thus, it may be possible that the possessor – if not the author – of this musical manuscript was a student of the University of Göttingen or Tübingen (from where most printed works come), who additionally had eclectic preoccupations of astrology, cabbalistics, medicine, etc. And the existence of such a colligate underlines the western university tradition which often attached musical works to the arts of the *quadrivium*. Otherwise, the general context of the age was Renaissance Humanism – consolidated and developed as a traditional support of the various reforms

peculiar to the Germany of that age – which favored the orientation to several fields, the eclecticism of taste and intellectual preoccupations.

On the other hand, having in mind the two different writings, one can almost certainly conclude that the first one (the rectangular one) belongs to a professional copyist who compiled pieces of various authors, a fact which also explains their very different character. The owner of the second writing (the triangular one) may also be the author of the pieces he has written down. In fact, the last piece also argues for this hypothesis, since a copyist would have copied a complete piece, and not two versions with abbreviations and references of the same piece. Finally, the pieces noted by the second writing are more unitary in their character, and can be more probably connected to one single person.

As for the dating, the manuscript was completed with certainty in the period between 1514 and 1579. The first date is the *terminus post quem* of the fabrication of the paper, the second is the date of the binding of the colligate in the final form it has come down to us. However, as this is a dating too large, and lacking precision, we can launch the hypothesis that the actual creation of the manuscript happened between the years 1520-1540. An interesting addition is the fact that this period is the time of the appearance and fast development in the great Italian centers of Rome, Florence, or Venice, of the genre of the Renaissance madrigal, while our manuscript only contains musical pieces belonging to the tradition of the Renaissance motet, which is somewhat prior to the madrigal. This fact clearly argues for the manuscript's provenance from a German area of the period in question.

Revising all the assumptions exposed above, let us now present the conclusions in a synthetic tableau. I insist on pointing out again that these conclusions, which I will put forward in the reverse order of their probability or credibility, must be taken as assertive and /or problematic statements, and not as definitive conclusions. Here they are:

– The document studied has two authors, at least on the level of the writing.

– The pieces belong with certainty to several composers (historically, stylistically, etc. distinct); on one single page of the manuscript [1] appears the note Josquin [des Pres, a.n.] – a composer of French-Flemish origin, very famous and admired all over Europe at that time. The piece is not composed by him, since the comparison with the edition of his complete [attested] works yielded no results. However, it was a practice in that age to attribute unknown pieces or pieces written by other authors to a great composer.

– The manuscript is a compendium of the art of musical composition, a musical “anthology”, probably used as a work of reference by its owner, for private musical attempts or – possibly – for teaching music in schools.

– There are both vocal and instrumental pieces in the manuscript, written in the Renaissance style of the age, but also having certain characteristics of the incipient baroque style.

– It was created by a person (or persons) of great erudition and having diverse preoccupations in various fields; (probably an enlightened and encyclopedic mind – in the most general sense of the word – from one of the German universities); he must have been at least a very enlightened dilettante if not a true professional of music.

– The manuscript was probably completed in the period between 1520 and 1540; most data from the musicological analysis of the text point to this period.

– It is very probable that the manuscript had changed several possessors until the year it was bound in a colligate (1579) by Andreea Liebenthal, or that he bound it together with other works acquired in different times and places.

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Annex Motet 4 voices

Astrolabius p. 19-20

XXX

4

Astrolabius p. 19-20

Musical score for measures 31-41. The score is for four voices: Soprano (S), Tenor I (TI), Tenor II (TII), and Bass (B). The music is in a key with one flat (B-flat) and a common time signature. The Soprano part begins with a melodic line, while the other parts provide harmonic support. Measure 41 ends with a double bar line.

Musical score for measures 42-52. The score is for four voices: Soprano (S), Tenor I (TI), Tenor II (TII), and Bass (B). The music continues from the previous system. In measure 48, the Tenor I part has the lyrics "in miss. do". The score concludes with a double bar line in measure 52.

Astrolabius p. 19-20

Musical score for measures 53-63. The score is for four voices: Soprano (S), Tenor I (TI), Tenor II (TII), and Bass (B). The music continues from the previous system. In measure 53, the Bass part has the lyrics "in miss. = mi?". The score concludes with a double bar line in measure 63.

Musical score for measures 64-73. The score is for four voices: Soprano (S), Tenor I (TI), Tenor II (TII), and Bass (B). The music continues from the previous system. The Soprano part features a melodic line with some grace notes. The score concludes with a double bar line in measure 73.