Tentative typeset of tablatures

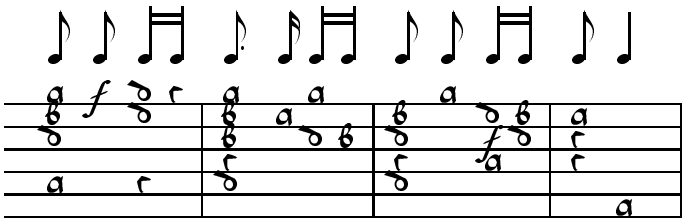
using MusiXTEX and lutefonts of Wayne Cripps

This pages results of a combination of TEX, MusiXTEX from Daniel Taupin (taupin@lps.u-psud.fr) and the lute fonts of Wayne Cripps (wbc@cs.dartmouths.edu). Being an enthousiast user of the `tab` program of Wayne, I definitively encourage everybody who is confronted with the need for typesetting lute tablatures, to use this program : it offers both the inherent advantages of TEX and a simplicity of use, dedicated to the preparation of lute tablatures. I consider the present work as a more or less scholar exercice, pretexting to reach some features not directly available in Wayne's `tab`.

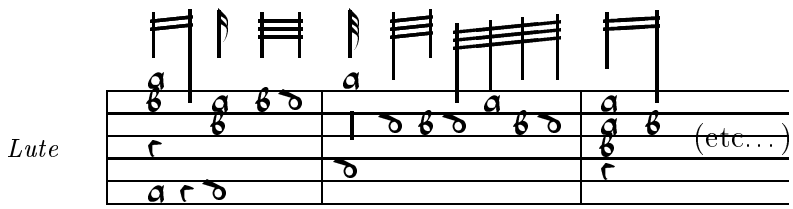
It results from this not only that the encoding of a tablature sheet by my method is a tedious and time consuming job, but also that a big programming effort should still be spent in order to make simple features available. This can be related to the general fascination power of the lute : the most difficult steps you go in approaching it are nothing compared to the difficulty of playing the instrument...

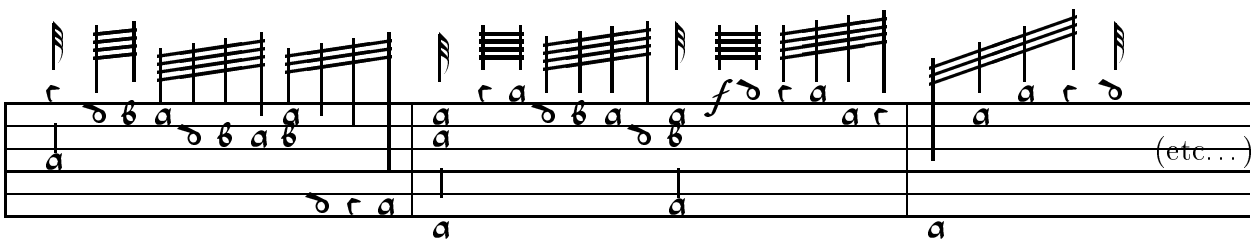
This document is intended to be printed on a 600 dpi printer.

MusiXTEX is a character based musical typeset tool, based on systems, staffs, clefs, time symbols, bars and notes (themself consisting of a head, a stem and some flag). Each note has a pitch which determines its position on the staff in combination with the clef. Here, I decided to disconnect notes from their pitch : the tab staff is well a musical staff; time symbols above the tab-staff are well MusiXTEX notes (with or without heads, and with some specific layout parameters in order to obtain a certain aesthetic result); *but*, on the opposite, note symbols (letters or figures) are alpha-numeric characters drawn on a position one has to encode. Here are a few bars of Anthony Holborne.

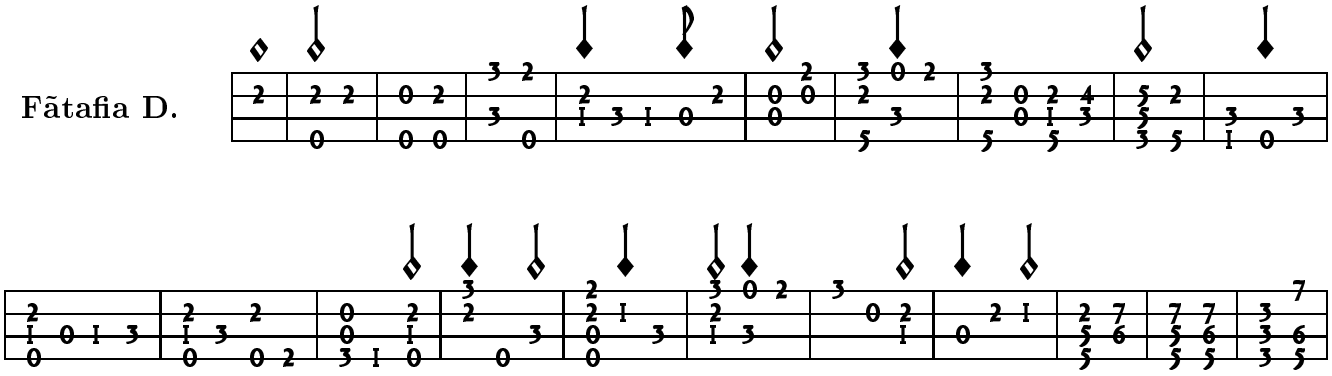


Old printed tablature books look sometimes very primitive compared to some manuscript tablatures, maybe because of the relatively limited possibilities of the very first printing techniques. With such a modern tool as MusiXTEX one can try to imitate manuscripts. There are at least two reasons for doing so : firstly some manuscripts are in very bad conservation status, the music must be re-written; secondly manuscripts are very efficient in making the music clear to understand while using a minimum of signs. This results sometimes in tablatures which are more confortable to play. For instance, slant grids do make the grouping of notes more visual. And long downward stems do better show the synchronism between upper and lower part of the music. From Danyel's Rosa (Add. 3056) :

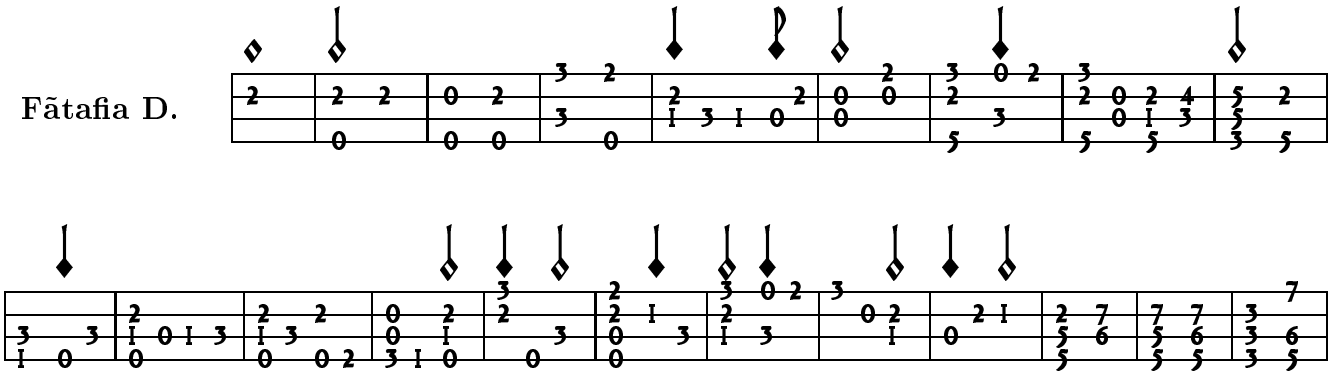




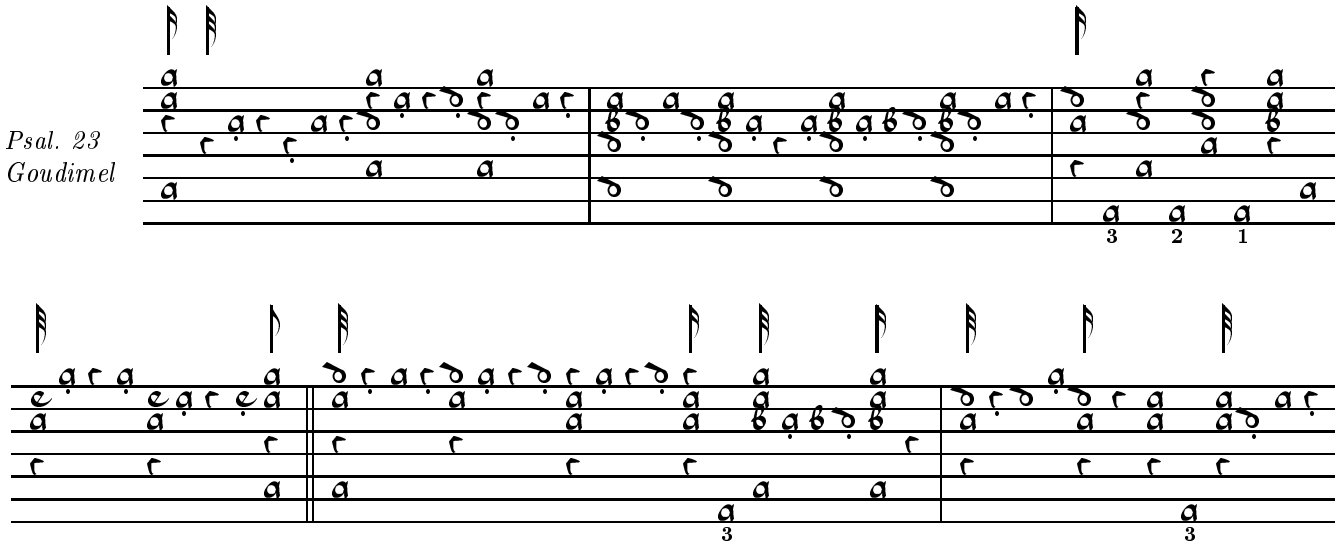
Note spacing and line breaking are basic problems in musical typesetting. At the beginning of music printing, lines were filled with notes, equally spaced; line break occurred when the line was filled, whatever the position of bars. For confortable playing, you need rather longer spacing for notes with longer duration. And automatic line breaking relies generally on integer numbers of bars in each line. Herebelow are some measures of a tablature for renaissance guitar by Fuenllana. First using equal spacing like in the original printed book, and manual line breaking.



Now, the same music typeset with proportional spacing and automatic line breaking.

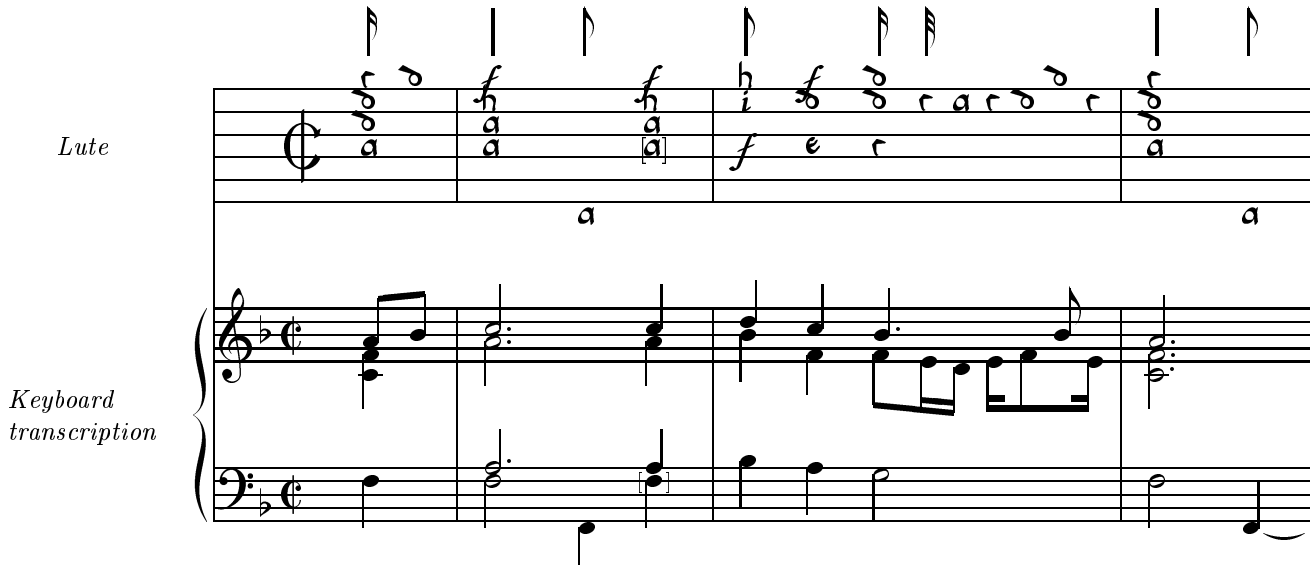


Obviously, manuscripts can present an unlimited number of variations in the notation of specific musical elements. For instance, the Thysius manuscript is handwritten on printed empty staves of 7 lines; in vocal pieces, the bass courses (diapasons) are indicated by the letter *a* on the seventh line, subscripted with a figure that indicates the rank of the bass course (nothing or *1* for the seventh course, *2* for the eighth course and so on).

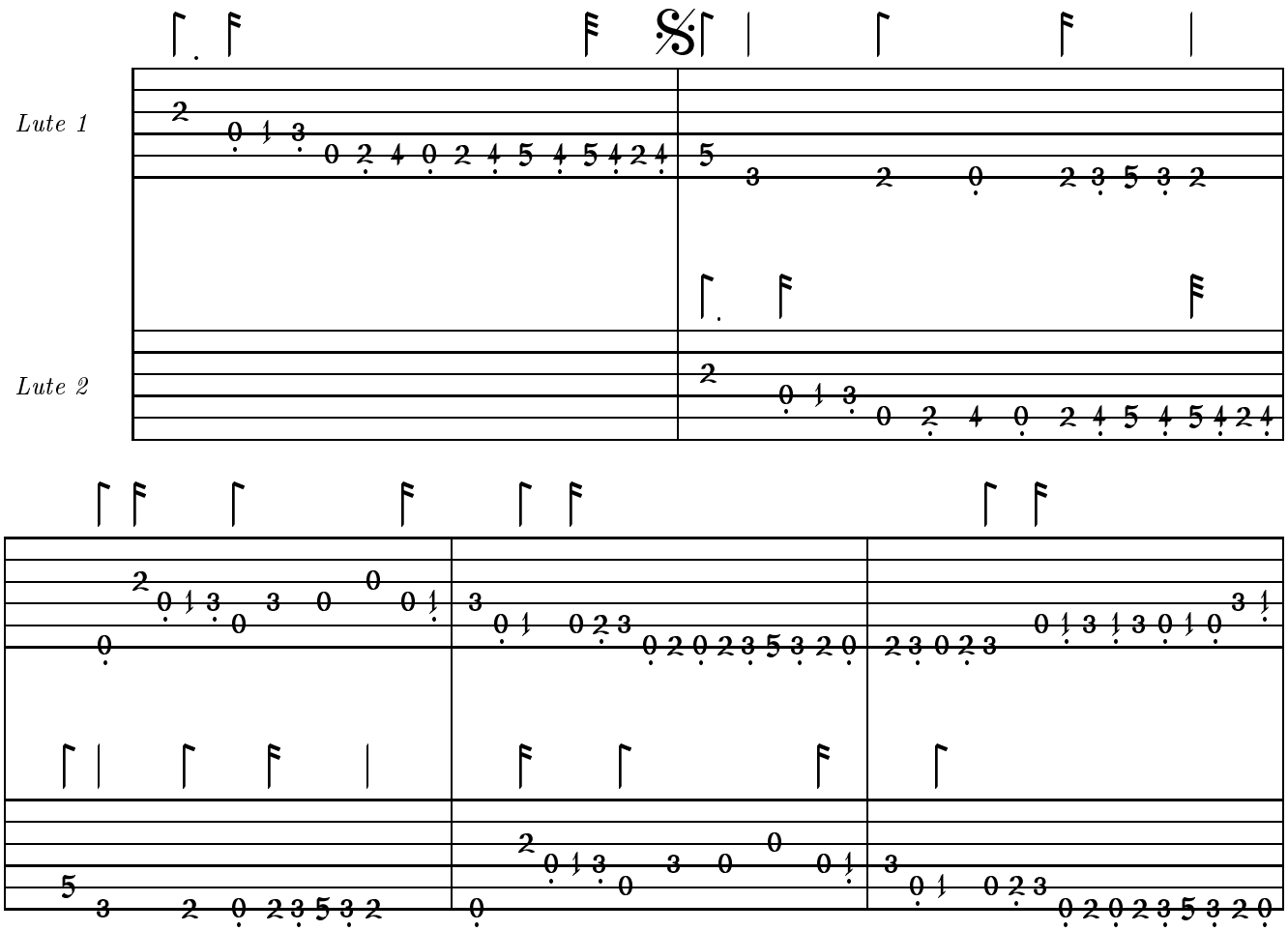


Except for songs, multiple systems under each other are rarely found in old books. But they are nowadays

frequently used, for lyrics or text simutlaneously with instruments, or for the separation of voices in a polyphonical tablature. Here follows an excerpt from John Dowland with a keyboard transcription of the tablature.

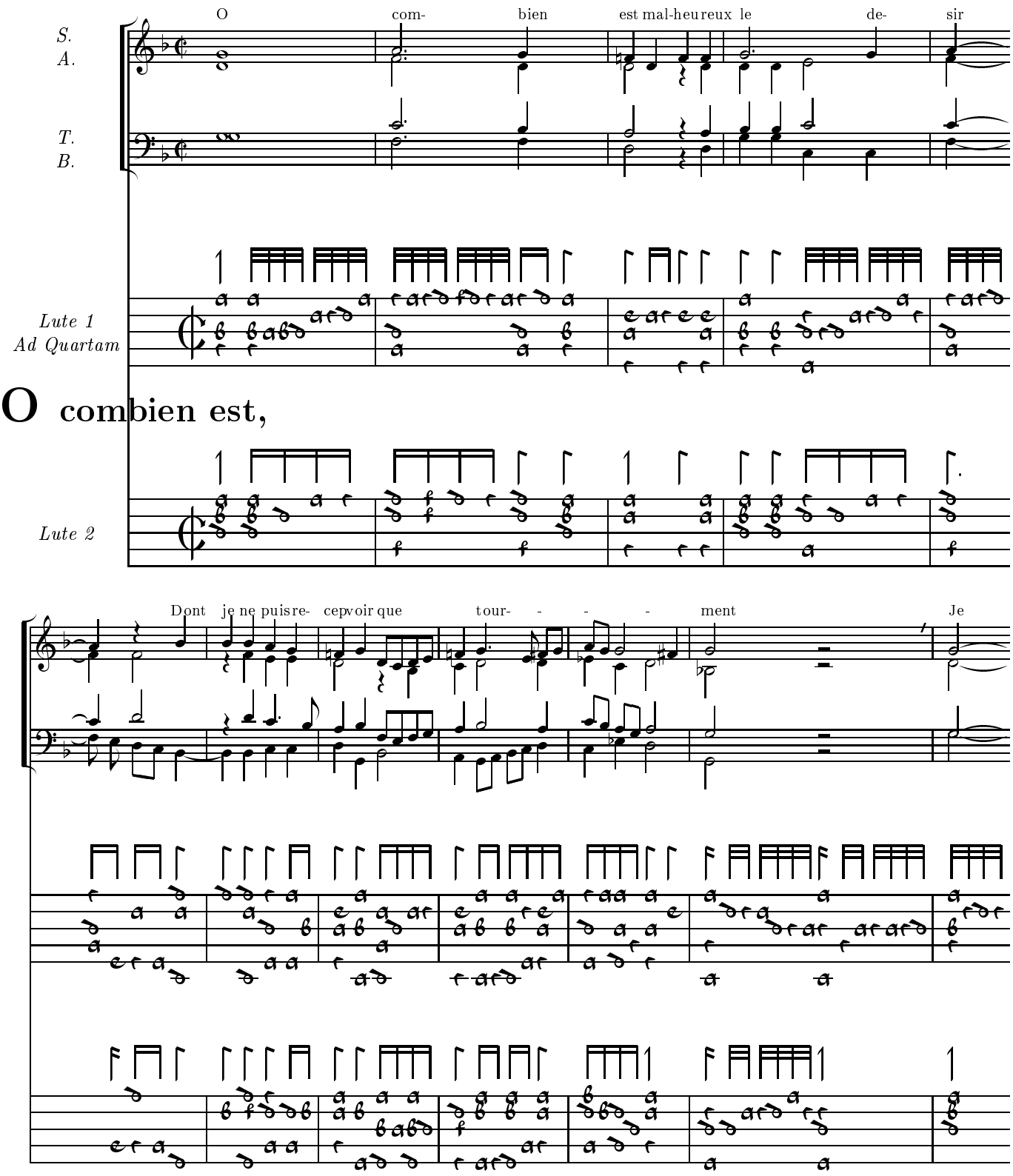


The following piece is a canon for two lutes attributed to Francesco da Milano. The original manuscript contains only a single line of tablature. Writing both musical lines one above the other makes the counterpoint more visible and easier to synchronize during actual playing.



Lute duets have sometimes been typeset in the past in a very practical layout : one part on the left page, the other one on the right page but bottom-up, so that both players could share the same book, playing one in front of the other, on both sides of the same table. One may prefer to have both parts the one above the other on the same page. The next piece was published by Phalese in 1578. In the same book he gives also a version for solo lute. Here, the first musical phrase of the lute duet is compared with the original vocal version by Claudin de Sermisy (CMM 52 - IV). Diminutions in the lute version can clearly be distinguished. In order to underline differences in

the treatment of the *musica ficta*, I added some un-necessary accidents in the vocal staves. The text is written in accordance with the superius voice.



It has been a pleasure for me to do this work and I would like to express my gratefulness to the persons who introduced me into the world of the lute and the typesetting of music.

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