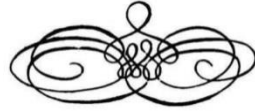


16th Century Keyboard Tablature as Performance Notation

From Spanish and German Sources



Introduction

This research is about the notation of early repertoire of the historical keyboard, namely tablature intended for keyboard instruments—the organ, clavichord, and different types of plucked keyboards, harpsichords—in the Renaissance and the Early Baroque Period; however, the entire scope of this [research] will definitely refer to the Middle Ages and High Baroque and even into our contemporary times. This research exclusively discusses the keyboard tablature notation system, and therefore, will refer to it simply as *tablature*. When the tablature notation for lute, guitar, vihuela, or other instruments are noted, it will be specifically mentioned, for instance, as *lute tablature*. As for the time period in question, *16th-century keyboard tablature* will serve as a reference term to what really covers from early 15th to mid-17th centuries. The reason for this expression of reference is that the majority of the keyboard tablature sources are from the 16th century with only a handful of sources from the 15th century and 17th-century sources that are simply carrying on the 16th-century tradition.

What inspired me to choose 16th-century keyboard tablature (henceforth just *tablature*) as a master's research topic is my first encounter with it about 4 years ago. It was a casual group class for harpsichordists during my previous studies before coming to The Hague. I and my harpsichord colleagues along with our teacher had a group class in which we all looked at simple madrigals in tablature notation from the *Ammerbach Tablaturbuch* (Leipzig, 1571, first print). After a discussion and an intense observation, all of us went to the harpsichord and started reading it through one voice per person. Four of us were able to decipher and play a four-part madrigal successfully. Next it was two voices per person, and two people indeed were able to play the four-part madrigal with relative ease. Then the assignment for our next gathering was to practice each person four parts alone. Unfortunately our next gathering of examining and furthering our ambitious tablature playing did not take place, but from this experience, I learned that tablature playing is not only possible but also quite fun, as uncomfortable as it is at first. One thinks of the four-part texture quite differently when they are notated with letters vertically and linear at the same time, and I felt that this kind of attempt is a worthwhile experience for every keyboard player, especially when one claims to deepen his or her understanding of authentic performance practice.

This first encounter sparked my curiosity and led to more questions that started this research process: “is playing from tablature notation perceived as impossibility today?” “why is tablature reading not a part of the current performance practice dialog? In the early stages of my curiosity when I shared the idea of 16th-century keyboard as performance notation, sometimes I was confronted with attitudes of dismay, disbelief, or dismissal—dismay from those who have seen it before and thought it would be excruciatingly cumbersome to learn it; disbelief from those who did not believe it was possible at all; and dismissal from those thought it would be a waste of time to pursue something that seemed so irrelevant and unattainable. This kind of attitude inspired the little rebel in me to prove them wrong. Through this research I would like to not only debunk the myth that tablature playing is impossible and unattainable but also present from historical, musicological, and practical evidence that it is useful, beneficial, and relevant in the practice of Historically Informed Performance (HIP).

I will closely examine the original sources of 16th-century Spanish and German tablatures— *Libro de cifra nueva para tecla, harpa y vihuela* (Alcalá, 1557), *Obras de Música para tecla, arpa y vihuela, de Antonio de Cabezón* (Madrid, 1578), *Facultad Orgánica* (Alcalá, 1626), *Das Buxheimer Orgelbuch* (ca.1460), *Ammerbach Tablaturbuch* (Leipzig, 1571), and *Bernhard Schmid II Tablaturbuch* (Straßburg, 1607)—and discuss them in detail. In addition to the theoretical findings and analyses, I will present detailed results of my performance from tablature notation from my first year harpsichord master recital that took place on May 22, 2019, at the Royal Conservatoire The Hauge. The program, titled “Notatie der Toetsenkunst 1460-1750” (Notation of Keyboard Art, 1460-1750), took inspiration from this research. The 50-minute program was performed entirely from original notation,¹ 3 of which were from tablature:

(click on the title to view the live performance; click here for a playlist of the entire concert)

(click here to view the program booklet; click here to view the original scores)

№ 181. Min hertz in hohen fröuden

from *Das Buxheimer Orgelbuch* (1460), German tablature manuscript.

Cipriano de Rore (1515-1565)

Num.55. Anchor che col’ partire. à 4.

from the *Bernhard Schmid II Tablaturbuch*, Straßburg, 1607. German tablature print. intabulation.

¹ This includes the instrumental parts in the Bach concerto; I and my colleagues carried out the practice of performing from original notation collectively. I had also printed an enlarged copy of the autograph full-score to be used in our rehearsals.

Antonio de Cabezón (1510-1560)

Quatro favordones del sexto tono

from *Obras de musica para tecla, arpa y vihuela*, Madrid, 1578. Spanish tablature print.

Girolamo Frescobaldi (1583-1643)

Toccata Nona in F

from *Il Secondo Libro di Toccate, Canzone, Versi d'Hinni, Magnificat, Gagliarde, Correnti et altre Borbone* revised edition, Rome, 1637. Staff notation engraved print.

Jean Henri d'Anglebert (1620-1691)

Prélude in C

Chaconne du Vieux Gaultier in C

from the Rès 89ter manuscript. Notation non-mesuré; staff notation manuscript.

Johann Sebastian Bach (1685-1750)

Harpsichord Concerto in F-Major, BWV 1057, Leipzig, 1738/1739.

Staff notation autograph manuscript.

(without tempo indication) - Andante - Allegro assai

The pieces that are not notated in tablature still have a role to play in the coming [exposition/discussion]: the toccata by Frescobaldi is one of the prime examples of alternative notation and publication of keyboard music outside the Spanish and German tablature method; the pieces by d'Anglebert were hand-written transcriptions for the harpsichord from lute pieces notated in lute tablature and shows how lute music and notation translate to harpsichord notation; the autograph full-score of the Bach concerto includes Bach's hand-written musical notes in the German tablature system—all of these will be discussed in detail in the following chapters.

In addition to my performance, I have devised an extensive experiment to put the tablature notation into practice: I have created 2 one-hour modules with original excerpts (one in Spanish tablature according to *Obras de Musica*, 1578; the other in German tablature according to *Bernhard Schmid II Tablaturbuch*, 1607) to try out with other people. My target participants were basically anyone—not only harpsichordists, organists, pianists but singers and

instrumentalists in any level (beginner, intermediate, advanced or amateur, professional) but also with non-keyboardists and even non-musicians with absolutely no prior knowledge of music notation. The results were astounding and confirmed exactly what the 16th-century sources said about the tablature notation.

([click here to view the Spanish Tablature Module](#); [German Tablature Module](#))

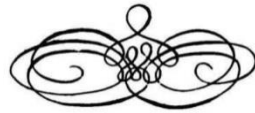
([click here to view the experiment results](#))

The results of this experiment will be analyzed and discussed in details in Chapter 7.

This research has given me an immense artistic development; I have never embraced performance from original notation so intensively as I have in the last 2 years. It has given me new perspective and artistic growth, and I am very excited to share this experience with you and to inform you about this rather relatively unknown, unperformed interesting notation for the historical keyboard.

I

What Is Tablature?



Chapter 1

In the Beginning:

The Origins of Keyboard Notation

One of the reasons I chose *tablature* as a research topic was because I really wanted to go back to where it all began—the very *first* for the historical keyboard. The earliest known notated keyboard is from the *Robertsbridge Codex* from the early 14th Century. But even before this occurs, I would like to briefly go back to the very beginning—the origins of music notation in general. In *Sounds and Signs*, Cole assigns inscriptions on bones, shells, and bronze from A.D.100 China to be the earliest known music notation: “In all cultures of which we have knowledge, [...] word literacy has preceded music literacy.”² This statement is true especially concerning keyboard tablature which consists of marks and symbols—letters and numbers—from linguistic scripts []. Johannes Wolf (1869-1947), the first author and musicologist in modern times³ to write and publish exhaustive works on music notation,⁴ also acknowledges that the music notation from the first few centuries C.E. might be primitive and limited because of the lack of tools and materials to notate or because of the simplicity of the music that did not require much notation at all.⁵ The first written notation in Western music appears in the late 9th century.⁶ In the era of a unified Catholic church, folk or religious music was orally transmitted until a type of accent notation, such as neumes⁷ came into use.⁸ Wolf points out the use of Latin and Byzantine neumes⁹ and Latin alphabet letters in early Greek notations,¹⁰ leading up to the mensural notation widely employed in Renaissance

² 6.

³ His works were published at the turn of the 20th century, as seen in his preface especially thanking Breitkopf & Härtel for printing despite the war needs (*Kriegsnöte*) in *Handbuch der Notationskunde II*, 1919. (his first work mensural notation published in 1904)

⁴ then to be followed by the first such work in English by Willi Apel in 1941 followed by Carl Parrish in 1957.

⁵ *Tonschriften*, 20.

⁶ Parrish, xvii.

⁷ a basic form of notation in both Western and Eastern cultures, inflection marks to indicate the general contour of the music and not necessarily the exact pitches or rhythm, used in plainchant in medieval music (Wikipedia, “neume”) []

⁸ Wolf, 21-23.

⁹ 20-29.

¹⁰ 30-33.

polyphonic music. As music evolved from monophonic (in purely linear arrangement) to polyphonic (including horizontal and vertical relationships), there was a need for a new notational system to clearly express the complexities of the new style, *ars nova*. Williams points out the “church notation” was considered “far too clumsy for indicating instrumental music.”¹¹ Apel and Tappolet agree that this had been easily accomplished by a combination of notes (*Noten*), letters (*Buchstaben*), and numbers (*Zahlen*).¹² Music written before 1600 was nearly all vocal music; in terms of performance practice, vocal or choral music was performed with instrumental participation, or purely instrumental music was written in the vocal style; later on more idiomatic instrumental music developed in the style of contrasting characters one after another as in the keyboard toccatas and preludes of this period.¹³ The performance of polyphonic music was accomplished either by an ensemble or a polyphonic instrument such as the keyboard or the lute, in which case was soloistic polyphonic music which did not exist before, and the tablature notation helped facilitate it.¹⁴ [add]

The earliest keyboard notation appears in the early 14th century in a form of a mixed mensural-tablature notation from a few leaves of instrumental music in the English source *Robertsbridge Codex*. Then for a century is nothing for the keyboard to be found, and the next notated keyboard music appears in the German *Wilkin's Tablature Book* (1432).¹⁵ Both Apel and Parrish agree that notation from early 17th century is more or less the modern notation system we have right today.¹⁶ Parrish points out that notation has not changed much since the early 17th century; however, 7 centuries before that in the 9-16th centuries, music notation went through many changes, which he describes as “the thorniest stages of notation.”¹⁷ [conclude this thought]

Two things about tablature must be clarified before further explanation: the definition of *tablature* and the usage of the word *tablature* even in the 16-17th century context.

As for the definition, there seems to be 2 schools:

- 1) a notation in which tones are indicated by letters or figures, or by a combination of one of these means with the symbols of mensural notation¹⁸
- 2) a system [...] of showing by letters or numbers or other means the string or fret or organ key that was to be touched, rather than the sound to be produced¹⁹

¹¹ 146.

¹² Apel, xx-xv; Tappolet, 33-34.

¹³ Apel, xx-xv.

¹⁴ Ibid.

¹⁵ Parrish, 183-184.

¹⁶ Apel, 3; Parrish, xvi.

¹⁷ XIV.

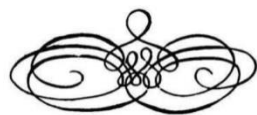
¹⁸ Parrish, 184.

¹⁹ Williams, 145-146; also Cole's definition (6).

The first definition by Parrish is true for all the keyboard tablature examples that will be discussed in the following chapters. Parrish expounds on the definition by also commenting it is a “touch” notation, a product of the Renaissance to notate a large amount of instrumental music that flourished in the period starting from the 15th century, “a special kind of notation that was well in advance of its time” that was also used extensively in a later period.²⁰

The second definition is very true in the case of other instrumental tablatures. For lute and string instruments, the notation will indicate on which frets to press the string; for wind instruments it will show which holes to cover or uncover²¹—it does assign the physical execution and placement of the notes but not necessarily the sound that will be produced.²² However, this will not be entirely true in the following chapters with the keyboard tablature; for example, the Spanish keyboard tablature was most often published as tablature for the keyboard, harp and vihuela; this kind of notation simply provided pitches, not necessarily playing technique idiomatic to one instrument.

The term *tablature* is used rather loosely and inconsistently even in the 16th century; for instance, the Italian expression *tavolatura* or *tabolatura* does not necessarily mean the tablature notation of figures or letters. The 16th century sources outside the Spanish and German systems in England, Italy, and France already employed many-lined staff scores and *partitura*, a multi-staffed notation of polyphonic music for the keyboard. Even terms like “English organ tablatures,” “Italian organ tablatures,” or “French organ tablatures” are purely national and not notational.²³ The difference between the Spanish and German *tablature* and the other English, Italian, and French notations will be discussed in more detail in Chapter 4.



Chapter 2

The German Tablature

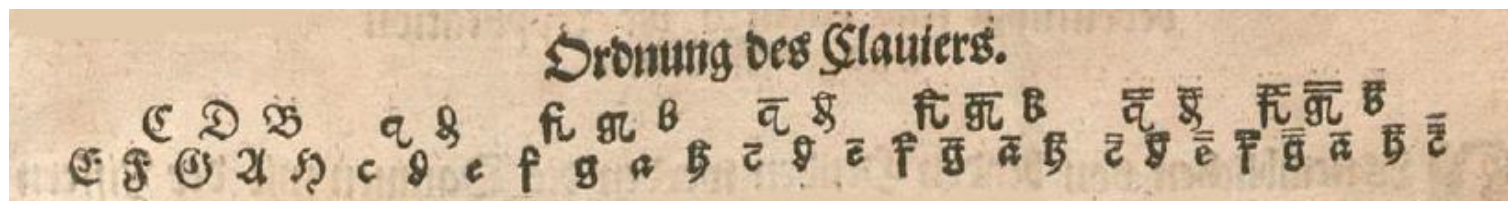
²⁰ XIX.

²¹ Williams, 158-160.

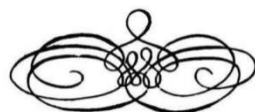
²² Ibid, 145-146.

²³ Apel, xxiii.

The title page and preface of *Orgel oder Instrument Tablaturbuch* (1571, Leipzig; 1583 Nürnberg) of Elias Nikolaus Ammerbach (c.1530-1597) shows an approach quite contrary to the general perception and reluctance towards tablature notation: *Orgel oder Instrument Tablaturbuch*, in sich begreifende eine notwendige [und] kurze anleitung/ die Tablatur [und] application zuverstehen/ auch dieselbige auf gutem grunde recht zu lernen²⁴ (Organ or Instrument [harpsichord] Tablature Book, containing necessary, short, and easy to understand instructions and explanations of the tablature which are therefore easy to learn).²⁵ It demonstrates that tablature playing is not some kind of an unattainable myth but rather a methodical notational system. As with German sources, it starts out with a meticulous explanation and even a visual aid of outlining the simple spellings in the shape and position of the keys, including the short octave as a “short guide and instruction for the beginner in the art of organ playing” (“Kurze anleitung oder Instruction für die anfangenden[anfängenden] Discipel der Orgelkunst.”):



Legibly intabulated and beautifully preserved, the *Tablaturbuch*²⁶ of Bernhard Schmid II²⁷ from 1607 is a collection of toccatas, motets and canzonas (in 4, 5, 6 voices), fugues and dances by known composers that show further intabulated repertoire possibilities for the keyboard. This collection showcases more counterpoint and diminutions than Ammerbach and certainly shows the 16th and 17th century keyboard idiom notated in tablature.



Chapter 3

The Spanish Tablature

²⁴ second print, 1583, Leipzig.

²⁵ Becker, Cecil Warren. "A Transcription of Elias Nikolaus Ammerbach's *Orgel oder Instrument Tablaturbuch* (Second edition, 1583)." University of Rochester, 1963.

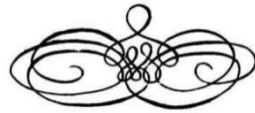
²⁶ also of Bernhard Schmid I (1577)

²⁷ Bernhard Schmid I (1535-1592);

Bernhard Schmid II (1567-1625)

II

Why Tablature?

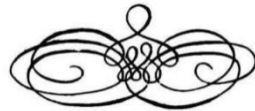


Chapter 4

Matters of Printing:

Composition, Notation, and Technology in 15th-Century Europe

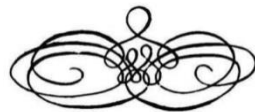
By the 17th century is already an abundance of keyboard notation in 2-staff scores and multi-staff partituras



Chapter 5

A Humane and Merciful Method:

A Pedagogical Approach



Chapter 6

The Advantages and Benefits of Tablature

Even though it may come across as quite intimidating at a first glance, tablature reading is immensely beneficial to any historical keyboardist or a scholar or performer of early music. First and foremost, the most obvious benefit is “the added dimension it gives to the understanding of and feeling for the music” in its original form; in the case of handwritten manuscripts especially, Parrish suggests that they “often suggest through their graphic designs something of the **character** of the music itself that cannot possibly be transmitted by a transcription in modern notation,” and concludes, “the study of the

manuscripts leads to **knowledgeable performance**, the ultimate aim of all work in this field.”²⁸ I cannot agree more with this statement; especially “the undeniable **aesthetic pleasure** offered by the manuscripts themselves” is enough inspiration to deepen ones study in performance practice; Parrish continues that the manuscripts are “the products of great skill and craftsmanship, and are sometimes very beautifully illuminated²⁹; they are **truly representative of the artistic sensibilities of the age in which they originated.**”³⁰

Another very practical benefit is that a “knowledge of notation also gives the study of early music an independence from others who have transcribed it, perhaps incorrectly with lack of understanding. It is unhappily not rare to see transcriptions published today which betray an ignorance of certain fundamental principles of early notation.”³¹ This point is perhaps the most practical and valuable to today’s historical keyboard player. In my experiments with harpsichordist colleagues, my concluding remark was always that they are now fully able to decipher any tablature in the style they were trained that day, which, if I think about it, is astounding. Within just 40-50 minutes of training, all keyboardist participants were able to play 2-part counterpoint pieces and a 4-voice Fabordones from Obras de Musica and a 4-part toccatina from the Bernhard Schmid II Tablaturbuch—from original excerpts from these 16th-century publications! And these are not just harpsichordists, but modern organists, pianists, other instrumentalists and singers who already had advanced keyboard skills. All original sources I used in my modules are in public domain and not yet completely transcribed and published in modern notation. I informed my colleagues that now they are able to access these themselves, select a piece, and simply play it. The ability to read from tablature, or any original notation, gives us a **healthy independence from modern transcriptions**. Even if one decides to perform from modern editions, I believe the difference between just blindly studying from someone else’s transcription and possessing the knowledge and the ability to look things up from the original by oneself is immense. It is such a valuable and powerful study tool—and to be gained from just two 50-minute training modules! With this ability, one is not limited only with the repertoire that has been transcribed and published but is able to dive into the wealth of numerous, public-domain-available, untranscribed original keyboard repertoire in tablature for study or even for premiere performance or recording. The ability to read original notation is a direct tool to (re)discover and uncover obscure, unperformed repertoire and should be very much valued in the current Historically Informed Performance Practice. Parrish continues to stress this importance as well:

²⁸ xvi-xvii.

²⁹ decorated, ornamented, embellished; (“die Ausschmückung der Handschrift“) Wolf, *Tonschriften*, 12.

³⁰ xvi-xvii.

³¹ Ibid.

The study of notation will also reveal the fact that there remain problems in every aspect of early music that are yet unsolved (some perhaps unsolvable), so that in many cases a transcription is merely a personal interpretation, and other interpretations may also be possible, at least in the light of our present knowledge.³²

Parrish also suggests, “An understanding of the evolution of notation can often aid in forming a reasonable presumption on which to work, pending a final solution.”³³ A closer look at the notation is just another method of achieving a more informed, more authentic performance practice. In addition a full understanding of music notation also depends on a thorough familiarity with the notation from the previous era understanding how the music notation of a work came about from the previous system. This renders a deeper, clear understanding of any work of music.

Perhaps at this point I should mention a few disadvantages of tablature notation. The most obvious one is that it does not show any melodic or intervallic contour at a first glance. Williams judges this to be impractical for violinists and winds (each instrument will need a different system that fits best which will not be universal for all instruments) and points out that it is also not ideal to express distant modulations³⁴ which is, of course, very prominent in the music of later periods; however, he suggests that solfege could have been a type of revived tablature in the 19th century.³⁵ The very first advantage I experienced when I was training in tablature to perform in my first year master recital was its **clear display of polyphony** which was very much needed for the solo performer of polyphonic music in the 16th century³⁶ whereas the display of voices onto 2-staff, 2-hand score will really mash up the contrapuntal lines into the staves. This also makes the tablature notation **versatile**. It would be possible to put it on a table for 4 players to play from whereas this would be much harder to accomplish with a 2-staff keyboard score. Also what I have experienced in my interactions with my experiment participants (especially the ones without advanced keyboard skills) is that tablature is a fantastic **pedagogical** tool. Just as the tablature treatises say, it is beginner-friendly. As modern day music performers, we seldom realize how much information the staff notation contains. My experience as a piano teacher for more than 12 years working with children has really enlightened me about the difficulties of getting fluent in staff notation for beginners and young children. Most children’s method books do not even start out with staff notation but with finger numbers (just like the Spanish tablature) and with letter names (like the German tablature). Only after weeks of training with letter names and counting out loud are young pupils introduced to the staff notation. Ife and Trudy attribute the inclusion of Cabezón’s pieces in Venegas’ *Libro de cifra* to a sales strategy: “relatively easy pieces by a famous composer would appeal to the amateur market and help to promote

³² xvii.

³³ Ibid.

³⁴ 162-163.

³⁵ Ibid.

³⁶ See Chapter 1, Footnote 14.

sales.”³⁷ This is not just a business trick, but I think also an inspirational pedagogical method. Why have students play rigid, unmusical exercises on the harpsichord when they could play easy beginner-level pieces from a master, such as the “Ave Maris Stella” by Cabezón, which nearly all of my experiment participants could sight-read 20-30 minutes into the module! [add media: image & vid perf of a participant(s)]

In conclusion, the words of another Spanish master Corrêa de Araujo, an advocate and defender of the tablature system, emphasize its wonderful pedagogical merits in his Prologue in Praise of the Tablature” from Facultad organica:

the music of this book is notated so easily and altogether so perfectly that there is no better system [...] wherever it has been used it has produced **marvelous effects**, causing **young beginners to achieve in a brief time** what in previous time could not be achieved after many years of study.³⁸ I cannot agree more with this statement. Even my non-musician participants who have never learned to read music or have played any instrument before could play a bit of the 2-voice “Ave Maris Stella” by Cabezón after having spent about 45 minutes training in the Spanish tablature module I have created—this is indeed a marvelous pedagogical effect. With the recorded results of the experiment, truly the pedagogical benefits of the tablature system can no longer be denied. In closing, here are the words of Corrêa defending the tablature system:

Although there are many who do not think well of the tablature, we have obtained these advantages and many others from it and so have the students. [...] May the well-intentioned, to whom alone I address everything contained therein, always keep in mind the tablature and my book to the shame and confusion of the venomous critics.³⁹

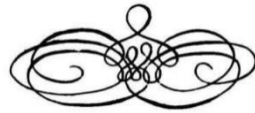
³⁷ 5.

³⁸ translated by Lash, 19.

³⁹ Ibid, 21.

III

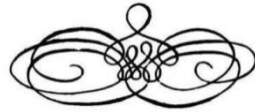
Why Not Tablature?



Chapter 7

Debunking the Myth:

A Tablature Experiment

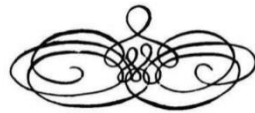


Chapter 8

To Tab or Not to Tab, That is the Question!:

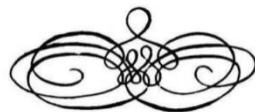
The Psychology of Notation

Music-making is an intricate, complex process, and even as no expert of medicine or science, I can definitely see that it is a neurologically and physiologically complicated phenomenon. As musicians, our senses are heightened and easily affected by many different things in the moment of performance.



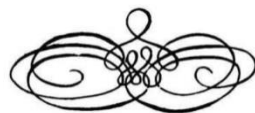
Chapter 9

Tablature and Historically Informed Performance Practice



Chapter 10

Efforts after the 17th Century to Bring Back Tablature



Conclusion

The 16th-century keyboard tablature notation is still relevant in today's performance practice training. As a performer of a historical keyboard instrument and probably a life-long student in the art of early music, I find this topic to be relevant to me. I can remember that it was only about 4 years ago, I started forcing myself to play from original notation (i.e. the many-lined staves of Frescobaldi, the right-hand C clefs in German keyboard, etc.) as much as I can. It was not only possible but very instructive in deepening my understanding of the music in terms of performance practice, and with this research, I was able to explore further and take the challenge of tackling down tablature notation, which I found more difficult than the other notational adjustments I had to learn. "The notation is not the music."⁴⁰ But music without notation is mortal. Notation is what preserves music and facilitates music-making. A close study and understanding of the notation will definitely enlighten one's performance of it.

Music notation is a multi-faceted, widely researched topic. Although there is less research specifically about keyboard tablature as a notational system, in the light of studies of music notation and the perception and cognition of notation, whether it be of modern guitar tab-reading or an early music approach to playing from original sources, I would like to address the playability of tablature as a system of notation. It is relevant and most importantly possible to play from tablature notation, and obtaining this ability will be so invaluable to a historical keyboard player.

⁴⁰ Barthold Kuijken, 2013.