

Issues in Transcribing German Lute Tablature

KURT DORFMÜLLER (1958)

Translated by Ellwood Colahan¹

MUCH HAS BEEN SAID on the question of whether lute tablature was a perfected system of notation or just an imperfect, supplemental form of notation. All the same, it remains unrecognized that *tablature*, as such, does not really exist. For two and a half centuries, various lute *tablatures* were in use. During this time, musical styles underwent fundamental changes, and the most diverse systems of tablature succeeded one another or were used concurrently. At the outset, then, we cannot form an idea of what tablature is in general or of its musical nature. On the contrary, we must ask ourselves: Which tablature are we talking about? In what period was it created, in response to what need? To what extent did it address that need? Only after these specific questions are answered can we make more general observations on the subject.

This is the perspective I will take in examining German lute tablature.² This system, as we know, differs sharply from so-called “Romanesque” tablatures, all of which share a certain kinship. Because of this, it deserves special examination.

I

We can be sure of little concerning the origin of German tablature. Virdung reports by hearsay that it was invented by the blind musician Konrad Paumann.³ On this

- 1 Originally published in French as “La tablature de luth allemande et les problèmes d’édition,” in *Le luth et sa musique: Neuilly-sur-Seine, 10–14 septembre 1957*, ed. Jean Jaquot (Paris: C. N. R. S., 1958), 145–57. *Le luth et sa musique* (The Lute and Its Music) contains the proceedings of a colloquium on the lute and related instruments. A second colloquium would take place in 1980, leading to a second volume of essays.—Trans.
- 2 For more details on this question see Kurt Dorf Müller, “Studien zur Lautenmusik in der ersten Hälfte des 16. Jahrhunderts” (PhD diss., University of Munich, 1952).
- 3 Sebastian Virdung, *Musica getuscht* (Basel, 1511), fol. K 3^v. [Translated by Beth Bullard as *Musica getuscht: A Treatise on Musical Instruments (1511)* (Cambridge: Cambridge University Press, 2007). The reference to Paumann — “Meister Conrad” — is on p. 156.—Trans.]

Figure 1

(A)	†	1	2	3	4	5
(B 2̄)	ā	a	b	c	d	e
(C 3̄)	f̄	f	g	h	i	k
(D 4̄)	l̄	l	m	n	o	p
(E 5̄)	q̄	q	r	s	t	v

basis, one could conclude that it was created toward the middle of the fifteenth century. This may be close to the exact date, because this tablature, as Virdung later shows, was intended for the five-course lute then in vogue. The system of signs used makes it apparent: the numbering of courses goes only from one to five, and at each fret, five letters correspond to those five strings (figure 1). When a sixth course was added on the bass side, toward the end of the fifteenth century, all the letters were spoken for. Thus, to indicate notes played on the sixth course, lutenists had to resort to the most diverse expedients—lower-case letters under horizontal dashes, capital letters, or numbers under horizontal dashes.

It may be that Italian and French tablature were not without some influence on these expedients. This possible dependency and the disunity of the procedures employed reinforce the impression that German tablature was indeed created before the advent of the six-course lute.

By the time Schlick's and Judenkünig's first books of tablature appeared in 1512, the German system had already existed for a half-century and had already passed through a crisis upon the introduction of a sixth course, a crisis that had undermined its unity and exposed its narrow potential for evolution.

Nevertheless, it spread rapidly during the first half of the sixteenth century. But from the second half of the century it was employed rarely by German musicians, and by the end of the century it had fallen virtually out of use. Already in 1528, Martin Agricola launched a violent attack against German tablature.⁴ He wrote that the blind lutenist to whom its invention was attributed "had thus blinded his sighted followers." Agricola's critique was ill-founded, and the new notation he proposed for lute would nowhere be adopted. Still, in mocking its blind inventor, he put his finger on one of the key characteristics of German tablature: it speaks much less to the eyes than Romanesque tablatures, and in contrast with them, forbears to visually portray the instrument with its six courses. But because of this, it depends much less on the graphic presentation of the notation, and therein also lies its advantage.

4 Martin Agricola, *Musica instrumentalis deudsch* (Wittenberg, 1529 [1528]), fol. 29^v.

Figure 2a

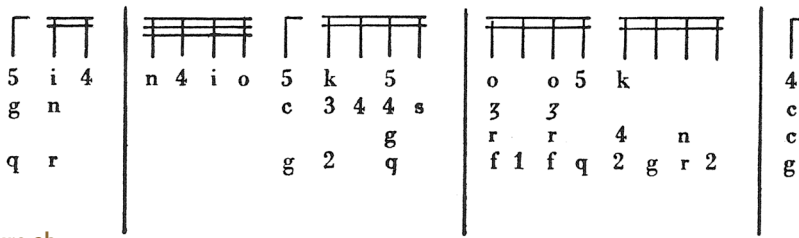


Figure 2b



More precisely, and with greater precision than Romanesque tablatures, it indicates with a single letter the note to play. Imagine a lute teacher training a student to play the instrument and correcting him verbally: we can see that the letters of German tablature would be the easiest way for him to make himself understood. For a blind teacher, the system would be like Christopher Columbus’s egg. But whether or not the legend of the blind inventor is true, it remains no less true that the German system of tablature has a real pedagogical value.

II

I say that German tablature does not speak to the eyes because it does not offer an exact representation of the instrument. Still, like any notation, it appears to our eyes as a figurative whole, having its specific peculiarities. Can we, musically, interpret these signs in a different way? How? Körte believed that German tablature was especially suited to the German conception of polyphonic music; that it was created to represent true polyphony in a meaningful way.⁵ It is quite true that German tablature can portray, in the way a score can, the unfolding of separate voices in a piece. It is thus that Hans Neusidler⁶ and especially Ochsenkuhn (figure 2) lay out their tablatures visually in such a way as to allow us to distinguish one voice from another.⁷ There are, however, but few lutenists who proceed thus. In particular, nothing similar can be found in

5 Oswald Körte, *Laute und Lautenmusik bis zur Mitte des 16. Jahrhunderts* (Leipzig: Breitkopf & Härtel, 1901), 80.

6 The original French text uses the variant spelling Newsidler throughout.—Trans.

7 The transcriptions in this article envisage a lute in A, tuned according to Virdung’s instructions: A–d–g–b–e’–a’. *Musica getutsch*, trans. Bullard, 151–3.—Trans.

Figure 3

Figure 4

the tablatures of Schlick and Judenkünig (figure 3). Therefore we cannot say that the German tablature system was created as a way to visually represent polyphony.

If we look impartially at the picture given by German tablature, in its initial form and often in its later form as well, we see the rhythm at first glance, and we immediately distinguish chords in single-voice passages. But what seems to be monodic in this visual image often is not so in reality. When, for example, a note in the descant follows an earlier one in the bass, both are arranged side-by-side on the page, as if they belonged to the same voice. Only in playing them and in hearing them do we approximately reconstruct the unfolding of the melodic voices. This notation is thus not capable of faithfully representing a polyphonic composition. In fact, it does the opposite. We could thus ask the opposite question: Is there a music that can accurately be represented in this notation? The answer is simple: It would be a music of monodic or chordal texture, or one that alternates between the two. Figure 4 shows a dance consisting of an ornamented upper voice interrupted by chords. The alternation between the horizontal melodic line and the vertical columns comes out very clearly. It gives the impression that here, the music and the visual image of the notation correspond perfectly.

This idea may seem like pure speculation at first glance, but it takes on more importance when we consider the technique with which the lute was played around the year 1500 and earlier. The iconography and the documentary sources of the time tell us that alongside the finger-style technique, the plectrum was used up to the second half of the fifteenth century. But the plectrum, like the bow, permits in theory only

two basic techniques: arpeggiated chords and single-voice melodic playing. We thus encounter exactly the alternation between vertical and horizontal sounds that we described above.⁸ At first, the technique of playing with the fingers was more closely linked to the two basic plectrum techniques. The plectrum later disappeared, but the playing position of the hand and arm changed very little. The technique of playing rapid passages with the thumb and index finger, which Hans Neusidler called “that which is highest in the art of playing the lute,” derives directly from the back-and-forth motion of the plectrum, also found in tremolo. Likewise, the thumb replaced the plectrum in strumming chords. Only plucking notes simultaneously—that is to say, playing them with several fingers and without arpeggiation—affords new musical possibilities. In this lies the beginnings of a technique capable of performing true polyphony. And yet in the early days of German tablature, this new technique was hardly developed. Complete emancipation from plectrum technique would come only toward the end of the sixteenth century.

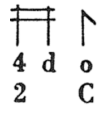


It seems that the lute would find a place as a solo instrument only in the course of the sixteenth century. According to documentary and iconographic sources from the fifteenth and early sixteenth centuries, it served above all as an ensemble and accompanying instrument. Its technique corresponded to this task and the German system of tablature corresponded to that technique, as we have just shown.

III

In the course of the sixteenth century, more and more polyphonic pieces, of greater and greater complexity, were put into lute tablature for the use of soloists. Although at first two-part settings still played a significant role, tablatures of three parts—and in the second half of the century, five and six parts—became the rule. Tablature systems attempted to adapt to this evolution by developing a presentation similar to that of a score. For German tablature, this was easy enough. The tablature setting could be created in the following manner: A complete score of the piece was prepared, as for German organ tablature. Then the tablature for the chosen instrument was derived from it, suppressing voice crossings, reducing unison doublings to a single note, simplifying difficult chords, and finally, assembling the remaining notes without bothering about which voice they belonged to. Without this last step, the result would be an actual score. But in practice, the results could be unsatisfactory. If, like Ochsenkuhn in 1558, we create a score faithful to the different voices, it results in a music written for the eyes, often unplayable and baffling to the performer (**figure 2b**). But if, like Hans Neusidler, in 1536 and later, we choose to simplify the

8 It is true that in certain cases the plectrum and the bow permit polyphonic playing, notably if the performer possesses a highly refined technique and if the piece is written in a “virtual” polyphonic style, i.e., adapted to technical requirements. Clearly this style is different from the true polyphony of a sixteenth-century vocal original.

Figure 5

		In Wolff's transcription:	
4 d o 2 C	f c n f l B		

texture according to technical demands, we interrupt and confuse the voice-leading, or even render it altogether faulty. One would not be able to reconstruct, based on the layout of Neusidler's tablature, the original scoring of his pieces (figure 5).⁹ Add to these problems that of coloratura ornamentation, with its numerous rapid passages interrupting the voice-leading of a piece and often connecting one voice to another. This is quite impossible to show in a score without doing violence to the lute's proper polyphonic style, which is to a certain extent pseudo-polyphonic. Still connected to spirit of improvisation and paraphrase, its charm lies in the various entrances, not in the subsequent leading of their voices.

German tablature cannot replicate such ambiguity and imprecision. Its abstract nature requires corresponding abstract choices: It is for vocal polyphony, or against it. An intermediate solution is hardly possible. Romanesque tablatures provide the best way out of this dilemma. By portraying the instrument visually, they offer to the eye what the ear perceives and what the hand plays, no more and no less. They thereby correspond exactly to the polyphonic style of the lute. We can see why, under these circumstances, German tablature was gradually superseded by Italian tablature. The expanding influence of Italians in German musical life in the second half of the sixteenth century only accelerated the process.

IV

Let me briefly review the history of German tablature and its musical origins. German tablature was created around the middle of the fifteenth century, possibly by a blind teacher. Its principal purpose was of an instructional nature. It represented a characteristic instrumental style, based on the combination of ornamented melody and consonant harmony. The solo, polyphonic style was alien to it. In the beginning, the lute was generally not an instrument for solo performance of polyphonic music, but rather an ensemble partner. In the sixteenth century, as the solo polyphonic playing

⁹ The purpose of figure 5 appears to be to contrast the layout of the tablature with the polyphonic texture that it represents. Neusidler notates a three-part texture (shown correctly in the transcription) in only two lines, combining the two lower voices in the lower line. This is in contrast to Ochsenkuhn, who might have used three lines to distinguish the parts, as examples such as figure 2b demonstrate.—Trans.

Figure 6



style became more established, the tablature system attempted to adapt. Efforts to represent such music in score were, however, less than completely successful. By the end of the century, German tablature had been abandoned in favor of Italian tablature.

Such are the historical facts. I have considered it worthwhile, at the risk of repetition, to restate them in brief. Now it will be easier to draw some concrete conclusions.

V

As we have said, there are many types of German tablature. We can distinguish two groups: polyphonic tablatures (for example that of Ochsenkuhn) and non-polyphonic tablatures (for example those of Judenkünig or of Melchior Neusidler). But even within these two groups there are differences. Thus it is that the non-polyphonic tablatures occur in two forms: In the first printed tablatures (those of Judenünig, for example), the bottom line is the principal line. It includes not only bass notes, but equally, where space allows, notes of the upper voices. This presentation exists in some sources up to the second half of the century. On the other hand, in some printed tablatures, beginning with those of Gerle in 1532, and in most manuscripts from the second half of the century, the notes are aligned higher. Either the top line (Gerle, [figure 6](#)) or the second line from the top (c.f. Melchior Neusidler in 1574, Bernhard Jobin in 1572) becomes the principal line. Wolff Heckel, in 1556, chose the second line from the bottom. The differences between the polyphonic notations of Hans Neusidler and Ochsenkuhn have already been pointed out; we can speak roughly of a consistently polyphonic approach and of an approach indicating only the principal entrances of the different voices.

In describing collections for lute in German tablature, we should scrupulously observe these nuances of notation. They give us valuable information to help us situate works chronologically and geographically, distinguish between different copyists or musicians, and determine which earlier sources may have served as models for later ones.

VI

But our most important task is to create modern editions of these ancient tablatures. Can we, in the service of performance, bring German tablature back to life, as it

was historically presented? This has been occasionally attempted, for example by Molzberger.¹⁰ I consider these attempts unnecessary: for most sixteenth-century lute music, German tablature was no longer an adequate system of notation. French and Italian tablature can always be substituted and are usually more appropriate to the nature of the music being notated. Furthermore, German tablature no longer has any pedagogic significance, since all music instruction is based on modern notation. If we want to steer the modern performer toward tablature notation, we must not offer several tablature systems at once without a compelling reason. Thus, I find it preferable to confine ourselves to French or Italian tablature and to transcribe pieces originally written in German tablature into one of these other systems. This can best meet the requirements of a “perfect” written transcription.

But for practical reasons, we cannot entirely renounce the transcription into modern notation. This brings us to the following question: How should we transcribe German tablature into modern notation? We know the dispute between Gombosi,¹¹ who wanted to reconstitute the intrinsic progress of the different voices, and Schrade,¹² whose opinion was the opposite. Both conceptions can be supported by examples from German tablature. This is because one can find in it, on the one hand, attempts to fully represent the polyphony of the vocal original and, on the other hand, notational forms that are not abstractly polyphonic but retain only the sounds actually heard. Gombosi has transcribed Ochsenkuhn’s method into modern notation. By contrast we can compare Schrade’s transcription process with the tablatures of Judenkünig, Gerle, etc.

The problem that confronts us has not, then, been created by our modern notation. It arose in the same form for German lutenists of the sixteenth century, and they resorted to the same solutions as those available to us today. I do not see why we should have to commit ourselves exclusively to a single solution. Why not allow ourselves to be guided by the example of bygone lutenists and use various systems of notation ourselves? I do not mean to say that we should slavishly imitate the notation system used by each work we wish to transcribe; transcription into modern notation can never be an exact rendering of the original. It is always an interpretation and, as such, must be governed by the musical content of the work itself. We can apply our historical expertise only by analogy, because our intention is not to notate abstract ideas but to reproduce a piece of music. Therefore I propose to make the choice of transcription system respond to the design of the pieces transcribed, in order to express the multiplicity of styles and musical ideas. For example, if the voice-leading in a piece is clearly evident, or if a vocal composition is intabulated without undergoing significant transformation, I will use a mostly polyphonic notation. On the other hand, for dances, instrumental pieces emphasizing virtuosity, or vocal intabulations

¹⁰ Ernst Molzberger, in *Zeitschrift für Hausmusik* (1937): 148

¹¹ Otto Gombosi, “Das Problem der Lautentabulatur-Übertragung,” *Zeitschrift für Musikwissenschaft* 14 (1931–2): 186 and 16 (1933): 497.

¹² Leo Schrade, preface to the re-edition of Luys Milan’s *El Maestro* (Leipzig: Breitkopf & Härtel, 1927). Also, “Das Problem der Lautentabulatur-Übertragung,” *Zeitschrift für Musikwissenschaft* 14 (1931–2): 357.

strongly influenced by instrumental style, a non-polyphonic notation is appropriate. Between these two extremes, as we can see in the works of Hans Neusidler, there are approaches that allow us to sketch the framework of the voice-leading without trying to lock in every detail.

VII

Thus it is possible to arrive at general guidelines that will be useful not only for transcribing German tablature, but for transcribing lute tablature in general. They are, to be honest, rather imprecise and leave great leeway to the subjectivity of the modern editor. On the other hand, guidelines can be proposed for a number of special cases that may be acceptable to advocates of both extremes. The purpose of these guidelines would be to create a transcription that, while conforming to the needs of the instrument, still brings out the polyphonic design. By way of example, I propose some recommendations I think are important for the transcriber. First, here are three general rules:

- 1 Only sounds that can be played on the lute should be notated.
- 2 Signs required to clarify the leading of various voices should be placed in parentheses. No additional notes should be added except to show unisons; otherwise only rests should be added.
- 3 Voice-crossings should be shown only if they do not interfere with the legibility of the transcription. This rule may be abandoned if the tablature is included for performance and the transcription is presented only for purposes of commentary.

Other guidelines result from historical research. The primary question in this regard is this: How *legato* was instrumental playing in the Renaissance? A number of signs lead us to conclude that perfect legato, as we understand it today, was not used. Consider for example the organist Hans Buchner, of whose works some of the sources show the original fingering.¹³ The same phenomenon is manifested in the following rules that can be drawn from treatises and tablatures from the first half of the sixteenth century, especially German sources:

- 1 Except for final cadential arrivals and other “privileged” chords, notes played on the lute do not sustain for more than a whole note (represented by an unflagged stem in tablature). This was specified in the treatises of Finé and Gerle.¹⁴ If a

¹³ See Arnold Schering, *Geschichte der Musik in Beispielen* (Leipzig: Breitkopf & Härtel, 1931), 8 (Hans Buchner).

¹⁴ See Körte, *Laute und Lautenmusik*, 8, 20. The following is a summary of a relevant passage in Hans Gerle, *Musica teutsch* (1532), fol. N iiiiv: “Letters with a dot over them, that is to say worth a breve, or two ‘Schläge,’ must be written only if the chord in question is adorned with a fermata (‘Cardinal’), or if the first note in every voice is a breve. In all other cases, even that of a maxima, a letter must be applied to each ‘Schläg.’”

note sustains longer than a whole note in the vocal original, it must be repeated on the lute. I have found that German lutenists of the first half of the sixteenth century followed this rule scrupulously, at least in polyphonic pieces. An editor who did not take this into account could easily fall into the error of obscuring the voice-leading.

- 2 Dotted values and rests of short duration are ambiguous signs. It is impossible to distinguish with certainty when the tablature calls for a prolonged value and when it calls for a rest. This can be seen in the treatises of Judenkünig and Buchner¹⁵ and can also be corroborated in German organ tablatures¹⁶ and sometimes in the *épinette* tablatures of Attaignant¹⁷ and Antico.¹⁸ The frequent use of rests instead of dotted values relaxes the precision of the voice-leading and approaches a modern “pianistic” style.¹⁹ The character of the lute demands a similar notation, and this notation is especially appropriate since organ tablatures were recognized by lutenists as models of the genre. If a modern edition does not take this into account, it renders lute music as more “legato” than organ music, which is absurd.

If the voice-leading of a piece is subject to multiple interpretations, the tablature should be presented in the edition. When we are dealing with an intabulation of a vocal original, the voice-leading of the original should serve as the ultimate authority.

It is only by such guidelines that we can arrive at a mainstream approach for the transcriber. But I would consider any further imposition of uniformity as unnecessary and even counter to the historical facts themselves, because freedom of interpretation is precisely what the tablatures teach us by their diversity. Modern concepts of uniformity and “fidelity to the work” contradict the very nature of Renaissance music and especially the practice of intabulation. An intabulated piece is not a *res facta*. It is a styling, an ephemeral manifestation of the *res facta*; it is an improvisation or even a paraphrase of it. This is as true for intabulations of vocal pieces as it is for dances. Even preludes written especially for the lute are only to be conceived as introductions to, or interludes between, other pieces. Thus, what we encounter in the lute tablatures

- 15 Körte, *Laute und Lautenmusik*, 33, 34; Karl Paesler, “Das Fundamentbuch des Hans von Constanz,” *Vierteljahresschrift für Musikwissenschaft* 5 (1889): 30. Buchner discusses rests and continues: “*Suspiria abusive sumpta vocantur puncta inter duas notas unius vel duorum tactuum interposita.*” [This quotation appears in Körte, 34.—Trans.]
- 16 Regarding rests in German organ tablature, see: Paesler, “Das Fundamentbuch”; Hans Loewenfeld, “Leonhard Kleber und sein Orgeltabulaturbuch” (diss., Friedrich Wilhelm University, 1897), 44; Wilhem Merian, *Der Tanz in den deutschen Tabulaturbüchern* (Leipzig, 1927), 27, 79f.; Walter Robert Nef, “Der St. Galler Organist Fridolin Sicher und sein Orgeltabulaturbuch” (diss., Basel, 1934) (= *Schweizerisches Jahrbuch für Musikwissenschaft* 7); Dorfmueller, “Studien zur Lautenmusik,” 95ff.
- 17 See for example the following pieces: “Vivray ie tousiours,” “Amour vault trop,” “Dung nouveau dard” (mm. 6/7 and 15). Facsimile edition by Bernoulli (Munich: C. Kuhn, 1914).
- 18 See examples in Knud Jeppesen, *Die italienische Orgelmusik am Anfang des Cinquecento* (Copenhagen: Einar Munksgaard, 1943).
- 19 Yvonne Rokseth cites an example “that could be considered reminiscent of a hoquet” for its striking use of rests. *La musique d’orgue au xv^e siècle et au début du xvi^e* (Paris, 1930), 278.

of the sixteenth century are not works of art in the contemporary sense of the word, but only documents of musical interpretation of their time. This is where their true importance lies. This state of affairs is reflected in the tablatures by their diversity and their incidental nature. The guidelines for transcription that I have tried to extract from the examination of German tablatures endeavor to correspond to it.



[The preceding study was first presented as a lecture at a colloquium in Neuilly-sur-Seine in September 1957. This final section is a transcription of the discussion that followed. The speakers are Thurston Dart, Thomas Binkley, Hermann Leeb, and Lucas Podolski.— Trans.]

DART It is in German organ music that we find this rule permitting the substitution of rests for the prolongation of dotted values. I don't see anything like it in English organ music.

DORFMÜLLER I mainly wanted to show the care taken by German lutenists and organists of the sixteenth century to use a specifically instrumental notation. And I formulated these recommendations for the transcriber, taking into account the technique of the instrument and the non-legato performing practice attested to in the sources.

BINKLEY I see nothing in lute technique or in musical practice that justifies the substitution of rests for the prolongation of dotted notes, nor the restriction of note values to a whole-note.

DORFMÜLLER These rules are formulated in the treatises. Judenkünig said in his text that a rest could be substituted for the prolongation of a dotted note and, for example, when he transcribed into German tablature a piece by Dalza where there was a dot in the Italian tablature, he substituted a rest. The rule for whole-notes is also found in the treatises.

DART There is a certain analogy with clavichord music, where one finds many whole notes and even double whole notes. But it is impossible to sustain the tone of a clavichord for a double whole-note; it can only be imagined.

DORFMÜLLER That is the exact issue: Do we want to write for the instrument, taking its technique into consideration, or write abstractly?

DART In other words, do we want a transcription of what we actually hear, or a Platonic transcription?

LEEB I believe that if we want to obtain an intelligent instrumental interpretation from instrumentalists who are not necessarily very intelligent, we need to use a mode of transcription that allows them to grasp the musical idea and bring it to life by their own means; for example to use suitable articulations to give impressions

that go beyond what can be heard. Now, this is not possible if we content ourselves with transcribing the exact notes.

PODOLSKI Here is one observation on the sustain of sound. I have a guitar from the early sixteenth century. When you sound the string on the fingerboard, without plucking, the sound sustains as long as you like. Now, all lutenists use vibrato. Its duration depends partly on the instrument, partly on the technique, partly on the pitch. The thickness of the fret has its importance as well, because a deep vibrato intensifies the vibration. Another way to sustain the sound is by adding ornaments.

DART That is not the transcriber's role.

PODOLSKI But the artist can do it, especially at cadences, on double whole-notes, and when it seems necessary for the continuity of the performed work.

German tablatures also had to allow reading on other instruments. They are actually much less connected to lute technique than French and Italian tablatures.

It is equally interesting to note that German organ tablatures can be read on the lute, which is a key point since a piece that is not conceived for the lute is almost never playable on it.

These two observations suggest that the German notation systems, from their origins, were not specific to a single instrument.

DART An example of this is the Robert Johnson Allemande played by Mrs. Poulton, which is also found in the *Fitzwilliam Virginal Book* and which sounds marvelous on lute.



BIBLIOGRAPHY

This bibliography provides additional publication details, including reprints and translations made after the original article was published.

Agricola, Martin. *Musica instrumentalis deudsch*. Wittenberg, 1529 (1528). Facsimile reprint, *Musica figuralis deudsch* (1532); *Im Anhang: Musica instrumentalis deudsch* (1529), *Musica choralis deudsch* (1533), *Rudimenta musices* (1539). Hildesheim: Georg Olm, 1969.

Attaignant, Pierre. *Chansons und Tänze: Pariser Tabulaturdrucke für Tasteninstrumente aus dem Jahre 1530*. Facsimile edition, edited by Eduard Bernouilli. Munich: C. Kuhn, 1914.

Dorfmüller, Kurt. "Studien zur Lautenmusik in der ersten Hälfte des 16. Jahrhunderts." PhD diss., University of Munich, 1952.

Gombosi, Otto. "Das Problem der Lautentabulatur-Übertragung." *Zeitschrift für Musikwissenschaft* 14 (1931–2): 186–9 and 16 (1933): 497–8.

Jeppesen, Knud. *Die italienische Orgelmusik am Anfang des Cinquecento*. Copenhagen: Einar Munksgaard, 1943.

- Körte, Oswald. *Laute und Lautenmusik bis zur Mitte des 16. Jahrhunderts*. Leipzig: Breitkopf & Härtel, 1901. Reprint, Wiesbaden: Breitkopf & Härtel, 1974.
- Loewenfeld, Hans. "Leonhard Kleber und sein Orgeltabulaturbuch." Diss., Friedrich Wilhelm University, 1897.
- Merian, Wilhem. *Der Tanz in den deutschen Tabulaturbüchern*. Leipzig, 1927. Reprint, Hildesheim: George Olm, 2004.
- Nef, Walter Robert. "Der St. Galler Organist Fridolin Sicher und sein Orgeltabulaturbuch." Diss., Basel, 1934. (= *Schweizerisches Jahrbuch für Musikwissensch* 7.)
- Paesler, Karl. "Das Fundamentbuch des Hans von Constanz." *Vierteljahresschrift für Musikwissenschaft* 5 (1889). "Fundamentbuch von Hans von Constanz: Ein Beitrag zur Geschichte des Orgelspiels in 16. Jahrhundert." Diss., Friedrich Wilhelm University, 1889; Leipzig: Breitkopf & Härtel, 1889.
- Rokseth, Yvonne. *La musique d'orgue au xv^e siècle et au début du xvi^e*. Paris: E. Droz, 1930. Reprint, New York: Georg Olm, 1996. Translated in Patricia Sue Fitzsimmons, "A Translation of Yvonne Rokseth's *La musique d'orgue au xv^e siècle et au début du xvi^e* together with a Commentary" (DMA thesis, University of Rochester, 1977.)
- Schering, Arnold. *Geschichte der Musik in Beispielen*. Leipzig: Breitkopf & Härtel, 1931. Reprint, Wiesbaden: Breitkopf & Härtel, 1959.
- Schrade, Leo. "Das Problem der Lautentablatur-Übertragung." *Zeitschrift für Musikwissenschaft* 14 (1931–2): 357–63.
- . Preface to *Libro de musica de vihuela de mano, intitulado El Maestro*, by Luys Milan [Valencia, 1536]. Leipzig: Breitkopf & Härtel, 1927. Reprint, Hildesheim and New York: Georg Olm, 1994.
- Virdung, Sebastian. *Musica getutscht*. Basel, 1511. Translated by Beth Bullard as *Musica getutscht: A Treatise on Musical Instruments (1511)*. Cambridge: Cambridge University Press, 2007.



About the Translator

ELLWOOD COLAHAN is the Music and Performing Arts Reference Librarian at University of Denver. He holds a BM in classical guitar performance, an MA in music theory, and an MLIS, all from the University of Denver. His research includes data sonification, information literacy instruction, metric structures in Baroque music, and the bibliography of guitar literature.

About Soundboard Scholar

SOUNDBOARD SCHOLAR is the peer-reviewed journal of the Guitar Foundation of America. Its purpose is to publish guitar research of the highest caliber. *Soundboard*

Scholar is online and open access. To view all issues of the journal, visit <http://soundboardscholar.org>.

About the Guitar Foundation of America



THE GUITAR FOUNDATION OF AMERICA inspires artistry, builds community, and promotes the classical guitar internationally through excellence in performance, literature, education, and research. For more information, visit <https://guitarfoundation.org>.