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THE SCHLICK-VIRDUNG LUTE INTABULATION CONTROVERSY

HIROYUKI MINAMINO

IN MEMORY OF HANS H. LENNEBERG

An historic change in style and technique of lute playing took place from the third quarter of the fifteenth century, from the older monophonic manner of plectrum technique, to the new polyphonic manner using the fingertips. This change led lutenists to develop methods for the arrangement of polyphonic compositions for solo lute, and to seek a suitable notation for such arrangements. Lute tablature was invented, and lute intabulation methods were devised.¹ There is only a handful of surviving documents that reveal the secrets of arranging polyphonic music for solo lute at this crucial period, dating from the early sixteenth century.² The earliest of these comes down to us in a surprising form: Arnolt Schlick's attack on Sebastian Virdung's lute intabulation of a partsong.³

On 30 November 1511, a German instrumentalist, Arnolt Schlick, replied to a request from his son that he should consider publishing his compositions for organ and for lute. The main theme of the father's response was, however, criticism of Sebastian Virdung's treatise on musical instruments in general, and his intabulation method in particular. This began as a private correspondence between a father and son, but it became public when both the son's request and the father's reply were included as a preface to *Tabulaturen Etlicher lobgesang und Liedlein uff die orgeln und lauten*, a collection of pieces for organ solo, lute solo, and songs with lute accompaniment, which Arnolt Schlick published in Mainz in 1512.⁴ In his short poem attached to the preface, Schlick ridiculed Virdung's treatise which 'he made so difficult to learn [from] / For anyone may see and note for himself / Whether he can finger on the lute.'⁵ Schlick argued that 'one little song . . . no more than thirty tempora [bars] in length' which Virdung had intabulated for lute is 'so inartistic, so unrefined, so impossible and so corrupt.' Schlick concluded that Virdung 'pretends to teach others [a subject] about which he himself is untutored and ignorant.'

The target of Schlick's condemnation was Virdung's intabulation of his four-voice song 'O heylige onbeflecte zart jungfrawschaft Marie', included in his treatise *Musica getutscht* (Basel, 1511), reproduced opposite.⁶ Virdung's treatise is the earliest source to teach a method of intabulation for lute, and contains the earliest printed German lute tablature.⁷ Schlick criticised Virdung's lute intabulation by pointing out that it contains errors, mostly 'impossible fingerings,' in sixteen bars or tempora: bars 4, 6, 7, 8, 10, 11, 15, 18, 19, 20, 22, 23, 26, 27,

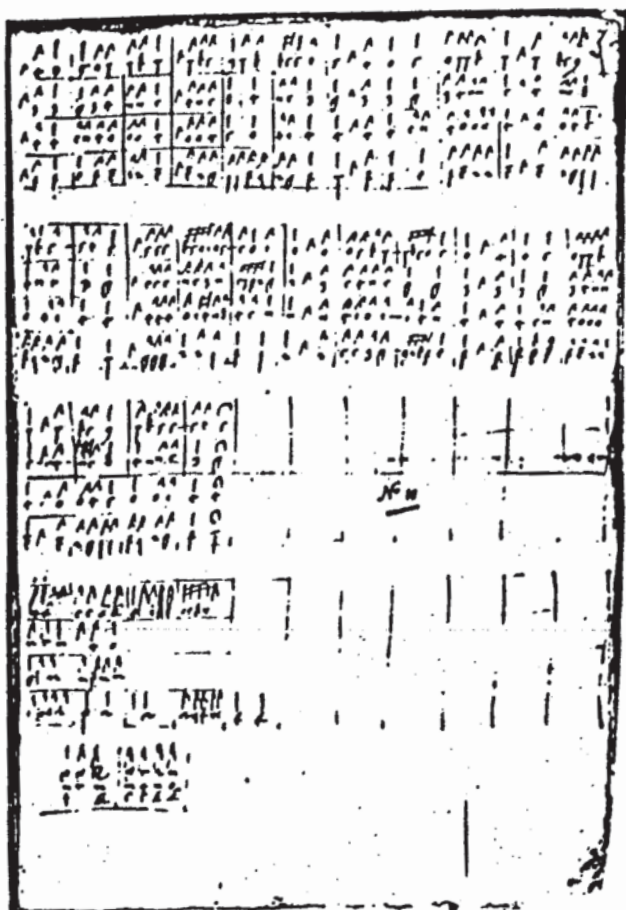
28 and 29.⁸ Every bar, except the second one, does indeed contain what may be considered as intabulation errors of some kind, or unplayable fingerings.⁹ The most serious error is the intabulation of more than one note simultaneously on the same course. Other errors are: (1) a note is prematurely terminated when the finger must be moved to stop another note, and (2) an unplayable stretch for the left hand produces impossible fingerings so that the required notes cannot be stopped. As Hans Lenneberg has correctly pointed out, the simultaneous occurrence of notes on the same course is sometimes initially hard to detect in German lute tablature where every intersection of fret and string is designated by its own tablature symbol.¹⁰ Moreover, Virdung's example is a kind of score, in this case, in German lute tablature, in which the intabulation of each voice appears separately.

These 'errors' explain Schlick's charge against Virdung of incompetence in making lute intabulations. Schlick's criticism supposes that a solo performance was intended for the intabulation. It is true that Virdung suggests that his interlocutor, in the text of his book, Andreas Sylvanus, should try to play the intabulation,¹¹ but in fact Virdung does not specify whether Sylvanus should play it as a solo, or in a lute ensemble (though no other player is mentioned). Or he may have meant that Sylvanus should play the piece one voice at a time. In any case, Virdung's example can hardly be claimed as a performing version. The solo lutenist would find difficulties in playing the intabulation from the way it is presented in the treatise. The tablature characters are not always properly aligned. For instance, the cipher with the rhythmic sign • (which denotes the breve) is usually printed in the middle of the bar, even when the other voices have smaller note values, instead of at the beginning of the bar. (Admittedly this was common practice in keyboard scores of the time, as it is with semibreve rests today, but hardly seems helpful in lute tablature, where alignment is critical in applying tablature flags to their respective notes.)

Virdung's main concern was to show an example of German lute tablature and to demonstrate a method of transcribing mensural notation into tablature characters, following the notes exactly as they are written. Virdung in fact admits that this version was not a final version. He planned to offer a further version with ornaments in another book: 'in the other book, I will also give you a better way, [that of] breaking up some pitches, so that [the music] does not proceed so very simply.'¹² This modified and ornamented version was apparently never published. So we should not be too hasty in concluding that Virdung lacked the skills as an intabulator that would allow him to amend the 'mistakes and impossible fingerings' in order to provide a performing version for solo lute; he may simply have had no financial resources to complete his project.

It is clear then that Virdung's example is not a performing score but a demonstration of matching mensural notation and tablature ciphers. It is worth investigating whether the intabulation method described by Virdung was his own invention, and an isolated example, or whether something similar was used

by others. An intabulation of Claudin de Sermisy's chanson, 'Il me suffit', preserved in Munich, Bayerische Staatsbibliothek Ms. Mus. 2987 is notated in German lute tablature, in open score format, reproduced below.¹³ As is Virdung's intabulation, each voice is separately notated and has its own rhythm signs.¹⁴ Even the kind of 'mistakes' in this intabulation are similar to Virdung's. If Schlick's criteria are applied, the intabulator of Sermisy's chanson likewise produced a 'wrong and corrupt' version; 24 out of 26 measures intabulate two notes simultaneously on the same course.¹⁵ Several other instances of open scores in tablature (in German, French, and Italian lute tablatures) confirm the practice of some of the sixteenth-century intabulators in making a vocal or tablature score when they intabulated a vocal model.¹⁶



EXAMPLE 2: Open score intabulation of Claudin's 'Il me suffit' in Munich, Bayerische Staatsbibliothek Ms. Mus. 2987, f. 2.

In fact, a comparison of the lute intabulation and the vocal original of Virdung's example reveals that there are no actual intabulation errors as far as the transcription of mensural notes into tablature characters is concerned.¹⁷ He seems simply to have intabulated the song voice by voice into German lute tablature, the same method he used when he intabulated the same piece for keyboard.¹⁸ This process would indeed result in the presence of conflicting tablature characters and impossible fingerings in the lute version if it were regarded as a performing version for solo lute. But if we consider Virdung's example as a preliminary stage of the process of lute intabulation, these 'mistakes' cannot be considered as such. Martin Agricola, whose treatise on musical instruments *Musica instrumentalis deutsch* (Wittenberg, 1529) borrowed heavily from Virdung's *Musica getutscht*, confirms that this was the case.¹⁹ Agricola advocated a different tablature system for lute music—German keyboard tablature in fact, which like German lute tablature dispenses with the stave, but does not prescribe left-hand fingerings—yet nonetheless his examples showing how to intabulate vocal music demonstrate a close similarity to Virdung's methods, and seem to supply the 'missing link' between German lute tablature in open score, and performing versions for solo lute.

In his first example, demonstrating how to intabulate a three-voiced composition, Agricola presents the vocal model in staff notation on separate staves with the intabulation of each voice notated separately below.

The image shows a musical score with three vocal staves and three corresponding lute tablature staves. The tablatures use letters and numbers on a six-line staff to represent fret positions. The first staff has four 'T' characters. The second staff has 'T' characters followed by letters and numbers. The third staff has letters and numbers. The fourth staff has letters and numbers. The fifth staff has letters and numbers. The sixth staff has letters and numbers.

EXAMPLE 3: The first stage of intabulation of three-voiced composition, from Agricola, *Musica instrumentalis deutsch* (Wittenberg, 1529), f. 3^{r-v}

The example is labelled: 'How each voice, by itself and separately, is changed and transcribed from the notes of vocal notation into letters.'²⁰ As can be seen, rhythm signs are given for each tablature character. The conception is identical to that of Virdung's tablature score. In his next example, Agricola retains the voices in tablature signs but omits the voices in mensural notes; he also retains the rhythmic signs in the part that determines the smallest rhythmic relationship between the voices.

EXAMPLE 4: The second stage in Agricola's intabulation method.

The inscription reads: 'Here are all three voices written one above the other in lute tablature, as is proper'.²¹ Yet the separation of each voice is still clearly seen in this format. The rest signs for the Superius and the Tenor at the beginning are present, and the final notes have their own rhythmic signs although they all have the same note value. The intabulator's final task to make a version for solo performance is first to align the tablature characters in their proper places, and then to eliminate the rest signs at the beginning and the rhythmic signs for the lower two voices in the final measure.²²

EXAMPLE 5: Editorial reconstruction of the final stage in Agricola's method.

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It remains to be considered whether these demonstrations of the preliminary stages of lute intabulation in these two German theorists were based on actual practice, and were commonly used by contemporary German lutenists.²³ Hans Gerle in his lute book *Musica und Tabulatur*, published in Nuremberg in 1546, offered instructions on how to intabulate the three-voice Italian song 'Scaramella', reproduced opposite.²⁴ The first illustration shows an intabulation of the Superius, marked 'Diskant allein'. The second example gives an intabulation of the Superius and the Tenor; the third is an intabulation of the Superius, Tenor and Bassus. Here again we have German lute tablature in open score format. The final version has all three voices but only one set of rhythm signs—a format identical with the performing scores in his lute books.

One peculiar feature both of Virdung's example of a four-voiced *Lied* and the intabulation of Sermisy's four-voice chanson discussed above is that the order of the two inner voices is exchanged; the Altus is notated on the third highest line and the Tenor on the second highest.²⁵ Gerle clarifies the mystery. He recommends the intabulator to intabulate the voices in the order Superius, Tenor, Altus, and Bassus: 'First, transcribe the discant; next, [transcribe] the tenor. Then, if you want to transcribe with four [voices], transcribe the alto . . . ; next [transcribe] the bass.'²⁶ The reason for the change of order may be that the intabulation in three voices was standard practice in early sixteenth-century Germany. The omission of one voice in intabulation must have offered much easier fingerings on a solo lute. Moreover, the Altus was commonly regarded as the least important voice in the composition which could be, or sometimes had to be eliminated when any problems occurred in intabulating the other voices.²⁷

Of course we have to remember in all this that most vocal music was then circulating in the form of partbooks rather than scores, so intabulation voice part by voice part was an inevitable working method. And one last line of defence for Virdung's open tablature score format is that it could serve as a reference source, preserving all the lines of a vocal composition, where a finished playing score would conceal or suppress altogether some elements of the polyphony.

Did other early sixteenth-century German lutenists actually use the intabulation method presented or explained in the examples of Virdung, Munich MS 2987, Agricola, and Gerle? Did their intabulation method simply demonstrate to the novice a step-by-step approach for intabulating each voice into tablature? Or did other early sixteenth-century German lutenists use a method totally different from the one discussed here, a method of intabulating the voices without making a score? The intabulation sketches found in late sixteenth-century sources provide evidence that some intabulators enciphered the polyphonic voices directly into a single stave of tablature; this moreover seems to have been the approach of Adrian Le Roy in his *A briefe and plaine Instruction to set all Musicke*

Nun will ich dir ein stücklen auß dem gesang in die Tabulatur sehen/damit du sehest wie man im thun soll / Erstlich seh den Discant/darnach den Tenor/wilt du dann mit viereu sehen/so seh den Alt auch aus dem deselein das zum Tenor gehört/darnach den basß/ Vnd wann ich sie auß dem gesang hab zusamen gesetzt/ will ichs darnach eintailen wie es sein soll/ vñnd wie ich im thue/also thue im auch mit dem auffsetzen wie hernach folgt.

ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff |
 pf p pp pp f f ff s kp pf so st fff f5 45 500 50

ff fff ff ff fff c
 st fff f5 45 500 5 Discant allein c

Discant vnd Tenor.

ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff |
 pf ppp pp f fff s kp pf so st fff f5 45 500 50 st fff f5 45 500 5

ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff |
 cn 44444 n3nn c3g g3 c3 cn nnn nc c3g 3 c3 cn nnn nc c3g 3 g

Discant Tenor vnd Basß.

ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff |
 pf ppp pp f fff f5 kp pf so st fff f5 45 500 50 st fff f5 45 500 5

ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff |
 cn 44444 n3 nn c3g g3 c3 cn nnn nc c3g 3 c3 cn nnn nc c3g 3 g

ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff |
 72 747474 22 22 gf g gf gf g2 222 2g g2gf gf g2 222 2g g2gf 7

Nun folgen hernach dy drey stym eingetailt.

Scaramella ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff | ff |
 pfp | pp pp | f f | ff s | kp pf | so st | fff f5 |
 cn4 | 44 44 | n 3 | n n c | 3g g3 | c3 cn | nnn nc |
 727 747474 2 2 2 2 g f f gf g2 222 2g

fff fff | ff ff | fff ff | fff ff | c
 435 st | 50 st | fff f5 | 535 st | f
 c2g 3 | c3 cn | nnn nc | c2g 3 | g
 g f | gf g2 | 222 2g | g f | 7

EXAMPLE 6: Gerle's intabulation method, from *Musica und Tabulatur* (Nuremberg, 1546), sig. c-2.

of eight divers tunes in Tableture for the Lute (London, 1574). It is quite conceivable that some early sixteenth-century German lutenists also used this method, although no evidence survives for this.²⁸

There remains a final question. If the working practices of Virdung, Agricola, Gerle, and the intabulator of Munich 2987 were typical, why would Schlick claim Virdung's example of lute intabulation was 'so inartistic, so unrefined, so impossible and so corrupt'? Schlick must have known that Virdung's example was merely a demonstration of a preliminary stage in the intabulation process, not the final performing version, which would have problems of conflicting note placement ironed out, and ornaments added, to make the piece 'more finelie handled', as Le Roy puts it. This lack of finish might be the basis for Schlick's condemnation, but even so, would not be a very telling criticism if Virdung's score was obviously only a demonstration of an intermediate stage in the lutenist's art. Moreover, Schlick seems to be ignoring Virdung's promise to publish a modified and ornamented version in his next book. Did he just mean Virdung was leaving the beginner in the lurch by presenting a half-finished example? One wonders whether Schlick's forthright attack stemmed from personal animosity, provoked by Virdung's unjustifiable jealousy towards Schlick, who enjoyed the patronage of the Elector and Emperor Maximilian I, and a disagreement regarding organ transposition. Virdung ridiculed Schlick, referring to Schlick's physical blindness in condemnation of his theoretical 'blindness'. Schlick's response, in his *Tabulaturen*, was to condemn Virdung's ingratitude, after Schlick had helped Virdung find good employment.²⁹ We may also wonder whether Schlick was disappointed and frustrated at being pipped at the post in tablature printing; the honour of having produced the first printed lute tablature in Germany went not to his publication of compositions and arrangements for organ, lute, and lute songs, but to 'one little song' published just a year earlier by Virdung. We do not know how much emotional conflicts affected musical ones. If Virdung seems unfairly criticized, is it safe to criticise his critic?

Notes

- 1 On the evolution of solo lute practice, see Hiroyuki Minamino, 'Conrad Paumann and the Evolution of Solo Lute Practice in the Fifteenth Century', *Journal of Musicological Research* 6 (1986), pp. 291–310. On various types of lute tablature, see Johannes Wolf, *Handbuch der Notationskunde* (Leipzig, 1919; Wiesbaden, 1963), vol. 2, pp. 35–157; and Willi Apel, *The Notation of Polyphonic Music 900–1600* (Cambridge, Mass., 1953), pp. 54–81.
- 2 On sixteenth-century lute intabulation treatises and intabulation methods, see Hiroyuki Minamino, 'Sixteenth-Century Lute Treatises with Emphasis on the Process and Techniques of Intabulation' (Ph.D. diss., The University of Chicago, 1988);

- and idem., 'Transformation in Intabulation', *Journal of the Lute Society of America* 17–18 (1984–1985), pp. 114–117.
- 3 Discussed in Hans Lenneberg, 'The Critic Criticized: Sebastian Virdung and his Controversy with Arnold Schlick', *Journal of the American Musicological Society* 10 (1957), pp. 1–6.
 - 4 Arnolt Schlick, *Tabulaturen Etlicher lobgesang und Liedlein uff die orgeln und lauten* (Mainz, 1512; facsimile edition: Zentralantiquariat der Deutschen Demokratischen Republik, Leipzig, 1977), f. 2^v.
 - 5 The elder Schlick's response is translated in English and reproduced in Beth Bullard, ed. and trans., *Musica getuscht: A Treatise on Musical Instruments (1511) by Sebastian Virdung* (Cambridge, 1993), pp. 40–44, 185–88.
 - 6 Sebastian Virdung, *Musica getuscht* (Basel, 1511), f. K3^v. A quasi-facsimile edition is in Robert Eitner, ed., *Publikationen älterer praktischer und theoretischer Musikwerke*, Bd. 11 (Berlin, 1882). The section on lute is translated in English in Uta Henning, 'The Lute Made Easy: A Chapter from Virdung's *Musica getuscht* (1511)', *The Lute Society Journal* 15 (1973), pp. 20–34.
 - 7 The earliest extant example of German lute tablature may be found in the so-called Königstein Song Book (Berlin, Staatsbibliothek preussischer Kulturbesitz, Ms. germ. qu. 719 fasc. 4). On the manuscript, see Paul Sappeler, ed., *Das Königsteiner Liederbuch, Münchener Texte und Untersuchungen zur deutschen Literatur des Mittelalters*, 29 (Munich, 1970). On the tablature, see Hans Tischler, 'The Earliest Lute Tablature?', *Journal of the American Musicological Society*, 27 (1974), pp. 100–3; and David Fallows, '15th-Century Tablatures for Plucked Instruments: A Summary, a Revision and a Suggestion', *The Lute Society Journal*, 19 (1977), pp. 8–10.
 - 8 Schlick, *Tabulaturen*, f. 4^v, in the form of a poem, beginning 'Ir Musici senger orgler'.
 - 9 The Superius, Altus, Tenor and Bassus are abbreviated as S, A, T and B, respectively. One bar in the intabulation comprises four minims. Bar 1: T is terminated when the index finger stops f^r on A. Bar 3: S is terminated by A on 2nd minim. Bar 4: S, A, and T simultaneously occupy on 3rd minim. Bar 5: T is terminated when the barré is removed on 4th minim. Bar 6: T is terminated by A on 1st minim; a stretch on 1st minim. Bar 7: S and A simultaneously occupy on 1st minim. Bar 8: a stretch on 1st minim. Bar 9: T is terminated by A on 1st minim; a stretch on 3rd minim. Bar 10: A and T simultaneously occupy on 1st minim; a stretch on 1st minim. Bar 11: T is terminated when the index finger is removed on 3rd minim. Bar 12: T is terminated when the index finger is removed on 2nd minim. Bar 13: T is terminated by A on 4th minim. Bar 14: A and T simultaneously occupy on 1st minim. Bar 15: a stretch on 2nd minim. Bar 16: S and T simultaneously occupy on 1st minim; T is terminated by A on 4th minim. Bar 17: S and A simultaneously occupy on 1st minim.

Bar 18: A and B simultaneously occupy on 3rd minim; A and T simultaneously occupy on 4th minim. Bar 19: S and T simultaneously occupy on 1st minim; S and A simultaneously occupy on 2nd minim. Bar 20: S and A simultaneously occupy on 1st minim; A and T simultaneously occupy on 4th minim. Bar 21: B is terminated by T on 2nd minim. Bar 22: S and T simultaneously occupy on 1st minim. Bar 23: a stretch on 2nd minim. Bar 24. *c'* on T is terminated when the index finger stops *f'* on A. Bar 25: A and T simultaneously occupy on 1st minim; A and B simultaneously occupy on 1st minim. Bar 26: A and B simultaneously occupy on 1st minim. Bar 27: A and T simultaneously occupy on 2nd, 3rd, and 4th minims. Bar 28: S and A simultaneously occupy on 1st minim. Bar 29: S and A simultaneously occupy on 3rd minim. Bar 30: A and T simultaneously occupy on 1st minim. Bar 31: a stretch on the final chord.

- 10 Lenneberg, 'The Critic Criticized', p. 2, n. 9.
- 11 Virdung, *Musica getutscht*, f. M2; see Bullard, *Musica getutscht*, p. 166, for an English translation.
- 12 Virdung, *Musica getutscht*, f. M2; the translation is taken from Bullard, *Musica getutscht*, p. 166.
- 13 See Arthur J. Ness, 'The Herwarth Lute Manuscripts at the Bavarian State Library, Munich: A Bibliographical Study with Emphasis on the Works of Marco dall'Aquila and Melchior Newsidler' (Ph.D. diss., New York University, 1984), vol. 1, p. 181 (a reproduction of the folio), and vol. 2, p. 142 (incipit); and Marie Louise Göllner, 'On the Process of Lute Intabulation in the Sixteenth Century', in *Ars iocundissima: Festschrift für Kurt Dorfmueller zum 60. Geburtstag*, edited by Horst Leuchtmann and Robert Munster (Tutzing, 1984), p. 86 (a reproduction of f. 2). A modern transcription of the vocal model may be found in Gaston Allaire and Isabelle Cazeaux, eds., *Claudin de Sermisy: Opera omnia, Corpus mensurabilis musicae, IV* (n.p.: American Institute of Musicology, 1974), pp. 98–99. The usage for the tablature characters for the sixth course in Munich 2987 differs from other known variants in the sixteenth-century German lute tablature. The cipher $\bar{1}$ to indicate the open sixth course appears in Virdung, Agriocla, and Hans Gerle's 1552 lute book. The cipher $\bar{3}$ is used to indicate the third fret of the sixth course in Hans Newsidler's 1536 lute book and Wolf Heckel's 1556 and 1562 lute books. But these two ciphers are not used simultaneously in any other lute books.
- 14 There is a question whether the score is an example of the preliminary stage of lute intabulation. The intabulation may be a source for viol or lute ensemble presented in a score format, although it does not conform to the manner of presentation for the extant instrumental ensemble music of early sixteenth-century Germany. The viol ensemble pieces in Hans Gerle's *Musica und Tabulatur* (Nuremberg, 1546), ff. C2-L1', and the viol ensemble pieces in Munich, Universitätsbibliothek, MS. Cod. 718 (by Jorg Weltzell), are notated so that each voice is presented separately. The lute duets in

Wolff Heckel, *Discant Lautenbuch* (Strassburg, 1556) [and *Tenor Lautenbuch* (Strassburg, 1556)] are printed in separate books. The unidentified incomplete piece in three voices at the bottom of the same folio just beneath the tablature score of 'Il me suffit' in Munich 2987 uses the same format. That only the first two measures are notated probably shows that the scribe was in the process of copying the piece from an existing intabulation, his own or another's, rather than intabulating the whole of one voice part rather than proceeding to the next.

- 15 The Superius, Altus, Tenor and Bassus are abbreviated as S, A, T and B, respectively. One tempus or bar in the intabularion comprises four minims. Bar 1: S and A simultaneously occupy on 2nd and 3rd minims. Bar 2: A and T simultaneously occupy on 4th minim. Bar 4: A and T simultaneously occupy on 2nd minim. Bar 5: S and A simultaneously occupy on 1st minim; A and T simultaneously occupy on 3rd minim. Bar 6: A is terminated by S on 4th minim. Bar 7: S and A simultaneously occupy on 4th minim. Bar 8: S and A simultaneously occupy on 1st minim. Bar 9: S and A simultaneously occupy on 1st minim; A and T simultaneously occupy on 2nd minim. Bar 10: A and T simultaneously occupy on 4th minim. Bar 11: S and A simultaneously occupy on 3rd minim. Bar 12: A and T simultaneously occupy on 1st minim. Bar 13: A is terminated by S on 2nd minim. Bar 15: S and A simultaneously occupy on 2nd minim. Bar 16: A and T simultaneously occupy on 3rd minim; B is terminated by T on 2nd minim. Bar 17: T and B simultaneously occupy on 1st minim; A and T simultaneously occupy on 4th minim. Bar 18: S and A simultaneously occupy on 1st minim; T and B simultaneously occupy on 1st and 3rd minims; S is terminated by T on 2nd minim. Bar 19: T and B simultaneously occupy on 1st minim; A is terminated by S on 2nd minim. Bar 20: S and A simultaneously occupy on 1st and 4th minims. Bar 21: S and A simultaneously occupy on 1st minim. Bar 22: S and A simultaneously occupy on 1st minim; A and T simultaneously occupy on 2nd minim. Bar 23: S and T simultaneously occupy on 4th minim. Bar 24: S and T simultaneously occupy on 3rd minim. Bar 25: A and T simultaneously occupy on 1st minim. Bar 26: A is terminated by S on 2nd minim.
- 16 See Minamino, 'Sixteenth-Century Lute Treatises', pp. 40–109.
- 17 Assuming a lute tuned in A, the intabulation of the Tenor note d' in measure 7 in the second line is a misprint. The tablature character \bar{n} stands for the note g' . The correct cipher must be n that produces the note d' . Likewise, the rhythmic sign for the Superius note b' in measure 11 is a misprint; the sign \lceil should be given instead of the sign \lrcorner in the tablature.
- 18 For the example of Virdung's keyboard intabulation, see Bullard, *Musica getutscht*, pp. 147–48.
- 19 Martin Agricola, *Musica instrumentalis deudsch* (Wittenberg, 1929), cited on f. 37^r. A quasi-facsimile edition in Robert Eitner, ed, *Publikationen älterer praktischer und theoretischer Musikwerke*, Bd. 20 (Leipzig, 1896). Eitner inserts the example

- between p. 50 and p. 51 of his edition with the separate page number 3. The treatise is translated into English in William Wood Hollaway, 'Martin Agricola's *Musica instrumentalis deudsch*: A Translation' (Ph.D. diss., North Texas State University, 1972); and William E. Hettrick, trans. and ed., *The 'Musica instrumentalis deudsch' of Martin Agricola: A Treatise on Musical Instruments, 1529 and 1545* (Cambridge, 1994); see especially pp. 157–160 for a reproduction and transcription of Agricola's lute intabulation. The two intabulations by Agricola are not entirely identical. In his second intabulation, some notes from the Tenor and Bassus are omitted, producing an incorrect counterpoint.
- 20 Agricola, *Musica instrumentalis deudsch*, 'Wie ein ygliche stymme für sich besonderlich/ aus den Noten des gesangs/ ynn die buchstaben verwandelt und abgesetzt wird'.
- 21 Ibid., 'Whie sind alle drey stymmen uber einander/ ynn die Tabelthur der Lauten/ wie sichs gehort/ verfasst.' See Hettrick, *The 'Musica instrumentalis deudsch' of Martin Agricola*, pp. 157, 159, for the translations.
- 22 My reconstruction is based on Example 3.
- 23 Hans Judenkünig, *Ain schone kunstliche underweisung in disem büechelein, leychtlich zu begreyffen den rechten grund zu lernen auff der Lautten und Geygen* (Vienna, 1523), ff. klv–i4, in the section entitled 'Das ander Puechlin', deals with some aspects of intabulation such as mensural notes, rhythmic signs, nominal lute tunings (A and G), and correspondence of mensural notes and nominal tunings. Judenkünig does not give any music example to explain his method of lute intabulation (his musical examples consist of the explanation of mensural notes, rhythmic signs, and two charts of nominal lute tunings). On ff. L1–L1', Judenkünig emphasises the importance of the correct note values when the voices in two- and three-part music are enciphered.
- 24 Hans Gerle, *Musica und Tabulatur* (Nuremberg, 1546), ff. c1–c2.
- 25 The standard presentation of voices in a choir book is the Superius and Tenor on the verso and the Altus and Bassus on the recto. Virdung presents his vocal model with the Superius, Altus and Bassus on one page and the Tenor on the other.
- 26 Gerle, *Musica und Tabulatur*, f. c1; the translation is taken from Jane Gail Illingworth Pierce, 'Hans Gerle: Sixteenth-Century Lutenist and Pedagogue' (Ph.D. diss., University of North Carolina, 1973), vol. 1, p. 234.
- 27 The importance of the tenor voice can be seen by the fact that the cantus firmus usually appears in the tenor. The so-called *Tenorlied* has the cantus firmus in the tenor. On the *Tenorlied*, see Stephen Keyl, 'Tenorlied, Discantlied, Polyphonic Lied: Voices and Instruments in German Secular Polyphony of the Renaissance', *Early Music*, 20 (1992), pp. 434–445; and David Fallows, 'The Early History of Tenorlied and its Ensemble, *Le concert de voix et des instruments à la Renaissance: Actes du XXXIV*

colloque international d'études supérieures de la Renaissance, 1–11 juillet 1991, ed. Jean-Michel Vaccaro (Paris, 1995); I have not the opportunity to read this latter article. Judenkünig mentions the Tenor and the Bassus for the intabulation of two voices, the Tenor, the Bassus and an unspecified voice (the Superius?) for the intabulation of three voices. The order of the voices successively to be composed in the vocal music of the late fifteenth century is the Superius, the Tenor, the Bassus, and the Altus; see Edward E. Lowinsky, *Music in the Culture of the Renaissance and Other Essays* (Chicago and London, 1989), p. 11. As Anton Mrzlečki notes in the foregoing paper in this volume, Bossinensis' frottola intabulations omit the altus altogether, something found elsewhere, for instance in the keyboard intabulations of four-voice French chansons in British Library Royal Appendix 58, a source of the early 1530s, now printed in ed. John Caldwell, *Tudor Keyboard Music c.1520–1580*, Musica Britannica lxxvi (London: Stainer & Bell, 1995). Le Roy however, in his *A briefe and plaine Instruction to set all Musicke of eight divers tunes in Tableture for the Lute* (London, 1574), seems to indicate intabulating music of four parts from the top part downwards, in the order Superius, Contratenor, Tenor, Bassus.

- 28 I am grateful to Ian Harwood for pointing out that 16th century intabulation methods are discussed by Jean Michel Vaccaro in *La Musique de Luth en France au XVIe Siècle* (Paris: C.N.R.S., 1981), pp. 110–17, and his edition of the works of Morlaye.
- 29 On this point, see Bullard, *Musica getuscht*, pp. 30–32.