

## Lex Eisenhardt

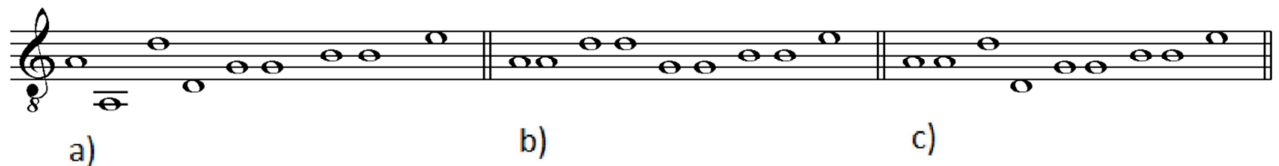
### ***Campanelle* in Seventeenth-Century Guitar Music, Bells and Riddles**

Play these sonatas harmoniously, now piano, now forte, for example when chromatic notes resolve step by step, in sad or melancholic pieces. And when there are *passaggi* or *campanelle*, they should be played more cheerfully, now and then embellishing them with sweet trills. And play tenderly, imitating the human voice of a singer.<sup>1</sup>

—Giovanni Battista Granata

Giovanni Battista Granata's preface to his *Novi Capricci Armonici* (Bologna, 1674) may be the only Italian guitar source using the word 'campanelle', to compare 'cascading scalar passages' to bell ringing.<sup>2</sup> Coincidentally, Gaspar Sanz's *Instrucción de música*, the other important source speaking of this idiomatic effect (*campanelas* in Spanish), was published in Zaragoza in the same year.

The effect of using the high octave strings, which are present on the fifth and fourth courses in any of the current stringing arrangements of the time (see ex. 1), in treble melodies, appeared for the first time in a printed guitar tablature in Angelo Michele Bartolotti's *Primo Libro*, in 1640 (ex. 2a and b). In the bourdon tuning (ex. 1a), which is probably the method of stringing he used, the high octave strings enable one to make double use of the fifth and fourth courses, for the bass and for the treble melody.<sup>3</sup> It is an efficient way to benefit from the particular possibilities offered by this tuning, for voice-leading.



Example 1a, b and c. Baroque guitar tunings. a) bourdon tuning; b) re-entrant tuning; c) 'French' tuning.

<sup>1</sup> Granata 1674, introduction: 'Quarto dovrai osservare le qui inserte suonate di farle spiccare armoniose, cioè suonarle piano, forte, come ne gli andamenti cromatici, che vanno à poco à poco risolvendo, come nelle suonate patetiche, e malenconiche, e poi arrivando nelli passaggi, e campanelle farle più allegre, e granirle di quando in quando con qualche trilletto dolce, e con suonarle affettuose, così verrai ad imitare con l'armonia la voce humana, che canta.'

<sup>2</sup> The term 'cascading scale passages', to describe campanelle, was probably coined by James Tyler. See *campanelas* in the Index from Tyler's *The Guitar and Its Music*, Oxford University Press (2002), p. 312.

<sup>3</sup> See Gary Boye, "Performing Seventeenth-Century Italian Guitar Music: The Question of an Appropriate Stringing." In *Performance on Lute, Guitar and Vihuela: Historical Practice and Modern Interpretation*, edited by Victor A. Coelho, Cambridge University Press (1997), 180–94.



Example 2a. Bartolotti (1640), p. 51.<sup>4</sup>



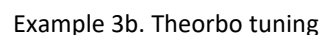
Example 2b. Bartolotti (1640), p. 66. Short campanelle figure.

Campanelle had been used before in Bellerofonte Castaldi's *Capricci* (1622) for the theorbo, and in Girolamo Kapsperger's *Libro terzo d'intavolatura* (1626). On that instrument higher-sounding notes on stopped lower courses were mixed with notes on the first and second courses, which were tuned an octave down (see exx. 3a and b).



Example 3a. Castaldi (1622), p. 41.

<sup>4</sup> Note on the transcriptions: small note-heads indicate that the note is played—and sounding as well—on another, mostly lower, course. Notes played with the thumb have their note stems down, notes played with the fingers have the note stems up. Note-heads between parentheses represent notes in the proper octave to fit in the melodic line; however, these notes do not actually sound at that pitch. For practical reasons, ornaments are omitted in most transcriptions.



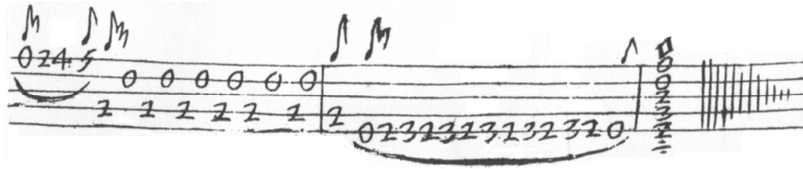
In a tuning with a high  $g'$  on the third course, some apparent anomalies in the melody line can be resolved. However, in the many sources that deal with the tuning there seems to be no truly reliable information about this, just a few ambiguous and uncertain manuscript references; therefore it should not be assumed that such an arrangement was in general use.<sup>5</sup>



In the works of Ferdinando Valdambrini, who used the fully re-entrant tuning (ex. 1b), there are many *stracini* (groups of slurred notes, like at the beginning of ex. 5a), cross-string trills, and long slurred trills. In ex. 5b we see some campanelle figures. In the first measure there is a displaced note a, which is played on the open fifth course. This creates uncommon melodic leaps of a ninth and a seventh. It seems that Valdambrini found it acceptable to replace the a', which would fit in the line of the melody. He could easily have played the same note one octave higher, at the ninth fret on the

<sup>5</sup> See Lex Eisenhardt, *Italian Guitar Music of the Seventeenth Century*, University of Rochester Press (2015), p. 141.

second course, without making it any more difficult to perform.<sup>6</sup> It makes no sense to argue that Valdambrini may have used a high octave string (a') at the fifth course, and anomalies of this kind cannot be resolved by changing the stringing.



Example 5a. Valdambrini (1646), p. 7. Cross-string trill and a normal trill (left-hand slurring).



Example 5b. Valdambrini (1647), p. 27.

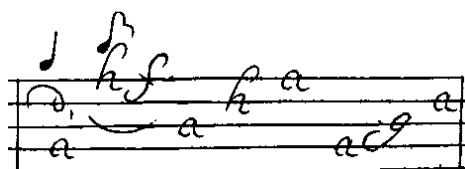
In Bartolotti's first book (1640) there are no obviously displaced notes in campanelle scales, like there are with Corbetta and Valdambrini. The scale from ex. 6 can be compared to one in ex. 7a. The difference is that Corbetta uses the displaced g of the open third course, while with Bartolotti there is a g' on the second course, fretted in eight position.



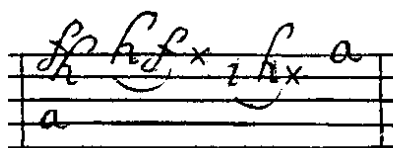
Example 6. Bartolotti (c. 1655), p. 47.

<sup>6</sup> The a' can also be played at the fifth fret of the first course, but then a position change is necessary.

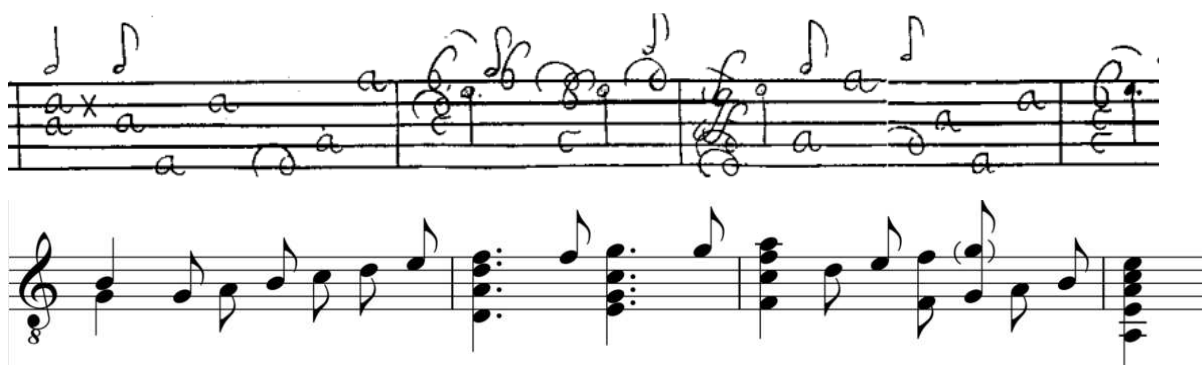
In Bartolotti's *Secondo libro* (c. 1655), the fifth and fourth courses are used abundantly in the high octave, in campanelle figures. In contrast, in Corbetta's first *Guitarre royale* collection (1671) there are very few longer campanelle scales. Only in the *Chacone* on p. 69 we find a campanelle scale with a displaced g (ex. 7a). The fingering can be compared to example 4. There is a similar D major scale on p. 3, which has no displaced g (ex. 7b), which can be compared to the one from Bartolotti's *Secondo libro* (ex. 6). However, in Corbetta's works there are many situations which are ambiguous with regard to octave placement (or displacement) and voice-leading, as we will see in the examples below. The ascending campanella scale in the first measure of ex. 8 is perfectly logical, whereas in the middle of the scale in m. 3 there is a leap down, of the interval of a seventh. A high string on the third course, to obtain a high g', would not be of any help here. The *Chacone* from Corbetta's 1671 book (see ex. 7a) is a rather archaic piece, and it might well be an earlier work.<sup>7</sup> It is likely that the campanelle scale from this example represents older practices, and that the one in ex. 7b is more in line with his newer style of composing.



Example 7a. Corbetta (1671), p. 69.



Example 7b. Corbetta (1671), p. 3.



Ex. 8. Corbetta (1671), p. 28.

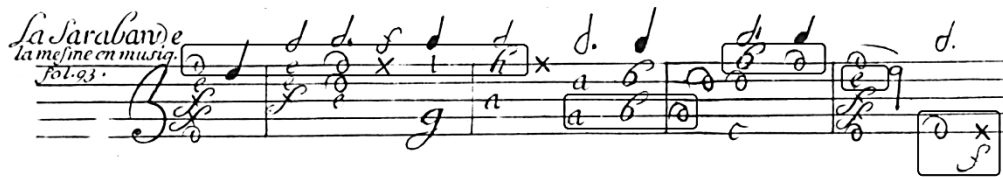
Although long campanelle scale passages have attracted the most attention in our time, single notes on the high octave strings on the fourth and fifth courses were frequently used in treble melodies, like in ex. 2b and ex. 8. Corbetta was a master in writing covered voice-leading, which probably could be performed satisfactorily only by the most accomplished players of his time. In ex. 9 we see two versions of a Sarabande, both taken from *La guitarre royale* (1671). The melody of the vocal

<sup>7</sup> It can be compared to the *Caprice de chacone* from the same book (p. 72), which is a much more refined composition.

version is spread over four courses of the guitar (indicated in the tablature version for guitar solo). It is certainly problematic to reconstruct voice leading in pieces for which no alternative vocal arrangement exists. In a musical analysis, we are often confronted with ambiguities for which there seem to be no ready answers. A situation like this can best be understood as a peculiarity of the guitar repertoire, arising from an unconventional, playful approach to the idiosyncrasies of the instrument.<sup>8</sup> Strictly speaking, using the high octave string on the fourth course for the treble melody (like in the second measure of ex. 9c) should not be considered as *campanelle*. Although the melody is spread over several courses, the effect of bell-like overlapping of the notes is absent, and much of the repertoire confronts us with similar anomalies in voice-leading, both in the melody and in the bass.



a)

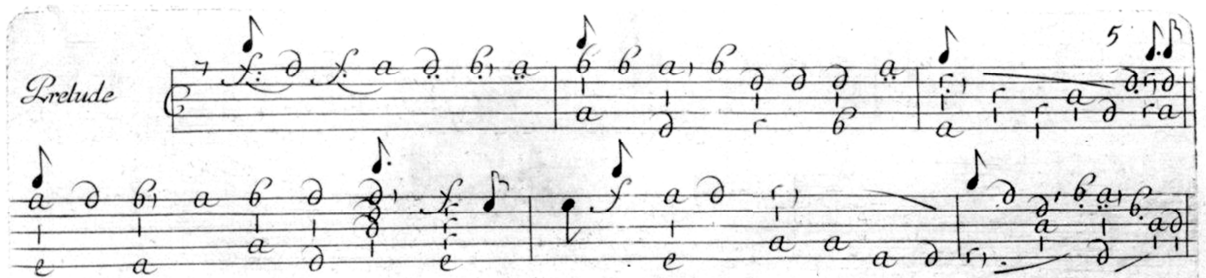


b)



c)

Example 9a, b, c. Francesco Corbetta (1671), p. 93. "Sarabande Tombeau de Madame." a) Vocal version, mm. 1–4; b) version for guitar; c) guitar transcription. The version for guitar solo is a fourth higher than the part song.<sup>9</sup>



<sup>8</sup> Eisenhardt (2015), p. 113.

<sup>9</sup> Ibid, p. 114.



Example 10. Robert de Visée (1686), p. 5.

The bass line in Robert de Visée's prelude in d minor (ex. 10), for example, is ambiguous with respect to octave position, and many notes on the fourth course seem to be intended to sound in the high octave. The first bass note d (m. 2) would probably work best in the high octave. However, in other places there is no easy answer, and uncommon leaps seem unavoidable. The c# in measure 4 is a major seventh higher than the preceding d—which is the lowest note on Visée's guitar in French tuning. Playing the last two bass notes of measure 3 in the high octave (e' and d') would seriously confound voice-leading, as it creates a voice-crossing, which is something Visée normally seems to avoid.<sup>10</sup> Therefore, we should better make the last two notes of measure 3 sound primarily in the low octave, by highlighting the bourdon. As the bass note d will be doubled in the high octave (d'), the listener will still be able to follow the 'gradual' transition from the d to the c#. This is probably one of the situations about which Visée remarks: 'I beg those who understand the art of composition well and are unfamiliar with the guitar not to be scandalized if they find that I sometimes break the rules. The instrument calls for it and it is necessary above all to satisfy the ear.'<sup>11</sup>

Campanelle had been used in Italy for decades, before they appeared in sources from other countries. With the Spaniards Gaspar Sanz and Santiago de Murcia there are often displaced g's in campanelle scales. It is known that they were both familiar with Corbetta's works, and this composer may have served them as an example. In Sanz's extensive observations about the tuning, we find no word about a high g' string. It is unlikely that Sanz himself would have used an octave-strung third course, since in his discussion of the disadvantages of octave stringing on the fourth and fifth courses (for performing ornaments and campanelle), he makes no reference to octave stringing on the third course.<sup>12</sup>

In ex. 11 we see the ending of a passacalle by Gaspar Sanz. It is a sequence which is repeated four times. The first group of six sixteenth notes of every measure is performed as campanelle, spread over different courses. In the second and third measures there are notes that are curiously outside of the line of the melody, creating uncommon leaps of a seventh. Sanz probably did this intentionally, as the scope of his instrument in re-entrant tuning (ex. 1b) does not allow for notes below the g of the open third course. He seems to give priority to the structure of the composition over the rules of voice-leading, even if the sounding result would make little sense to a listener.

<sup>10</sup> In Visée's *plucked* textures, bothersome voice crossings of the bass and the other voices are largely absent. Only when chords are strummed do odd inversions occur (like in the last chord of measure 4), even in final cadences. It is not the restricted tonal range of the instrument that causes unfavorable chord positions, but the (deliberate) use of battuto.

<sup>11</sup> Robert de Visée, *Livre de Guittarre* (1682), p. 4: '... je prie ceux qui scavrons bien la composition, et qui ne connoistreront pas la guittare, de n'estre point scandalizez, s'ils trouvent que je m'escarte quelque fois des regles, c'est l'instrument qui le veut, et il faut satisfaire l'oreille preferablement a tout.'

<sup>12</sup> See Eisenhardt (2015), p. 141.



Example 11. Gaspar Sanz, *Instrucción* (1697), tomo 3, f. 2, Passacalle. The small notes in mm. 2 and 3 represent what actually sounds.

From their printed books it appears that different composers treated campanelle differently. Bartolotti, for example, never allows for displaced notes in campanelle scales. In contrast, in his 1643 book Corbetta always replaced the g' of the fifth fret on the fourth course with the open g of the third course. However, in two of his later books (1648 and 1671) this anomaly appears only once (exclusively in Chaconnes), and campanelle scales are rare. In Corbetta's second *La guitarre royale* collection (1674), such anomalies are even completely absent. In Granata's first book (1646) there are no campanelle scales with displaced notes; in his book from c. 1650 there are a few, and in his book from 1651 they are absent again. In his later books, from 1659, 1674, 1680, and 1684, the displaced notes in campanelle reappear again. In *Soavi concerti* (1659) there are only a few, but in his books from 1674 and 1684 there are many more. Remarkably, some scales have displaced g's while others have not, for no obvious reason.

The campanelle from Granata's *Novi capricci armonici musicali* (1674) are particularly interesting for the many displaced notes which are played on open courses, other than the third. In ex. 12a and b, the a of the open fifth course is replacing the a' of the treble melody (as with Valdambrini, ex. 5b), and the g of the open third course is replacing the g'.



Example 12a. Granata (1674), p. 36 m. 5.





Example 12b. Granata (1674), p. 41 mm. 2-3.

Example 13 shows an extreme situation, with the non-existent notes d'', b', and a', played on the open fifth, fourth, and second courses. We should perhaps say that Granata is overplaying his hand here, as the ear cannot possibly follow the line of the melody. It's almost a parody.



Example 13. Granata (1674), p. 45 m. 5. The First note f' is corrected to f#' in the transcription.

In our time, the *campanelle* of the guitar are often compared to the ringing of the church bells that were omnipresent in the acoustic environment of cities like Bologna or Rome, where many guitar books were published.<sup>13</sup> The use of the diminutive (*campanelle*) should then perhaps be taken as reflecting the low volume of the guitar. Bell ringing played a role in various contexts, and it was applied for different purposes. It is tempting, for instance, to speculate that certain guitarists had come in contact with the art of change-ringing, which was becoming a tradition in England at that time. In some respects the impression of this method of ringing is resemblant of the (often descending) cascading scales of the guitar, in particular if it concerns a peal of six bells or more.<sup>14</sup>

<sup>13</sup> In Italy, church bells often were arranged in a peal of three or four. Bell ringing typically starts with descending patterns, such as Mi – Do – Re – Sol, followed by every possible permutation with those four notes. Italian bell-ringing can be found in many videos at YouTube, for example: <https://www.youtube.com/watch?v=GTRCizE7r2Y&t=699s>.

<sup>14</sup> The number of bells varies, from three to twelve, or even more. Full-circle ringing typically starts with a descending hexachord (if six bells are involved) or a descending diatonic scale, then followed by seemingly

However, there is no clear evidence of Italian composers of solo guitar music visiting Britain prior to c. 1650, and, by that time, works in mixed battuto-pizzicato style (which is the domain of the *campanelle*) had already appeared in print, in books of Bartolotti (1640) and Corbetta (1643).

One could also imagine a parallel to the effect of automated bell-chimes. From the late Middle Ages on, bell-chimes had been added to mechanical clocks, in many European cities. The function of these smaller-sized bells is to precede the hour strike of a church tower or town-hall. Interestingly, musical clocks for domestic use, imitating the tower clocks, were manufactured from the sixteenth century on.<sup>15</sup> The effect of their tiny bells—veritable *campanelle*—is somehow similar, also in volume, to the overlapping notes of the guitar. More widely known, however, were probably the sounds of the *carrillon*, a musical instrument which was developed to perfection in the Low Countries. In the seventeenth century many *carillons* were installed there, in churches and town-halls.<sup>16</sup> Foreign composers even wrote instrumental pieces imitating it, such as the *gigue le Carillon* by Ennemond (vieux) Gaultier.<sup>17</sup> Moreover, we should take into account that many Italian musicians were traveling through Europe, and some held posts at foreign courts. In the preface to his *Libro terzo* (c. 1630), Giovanni Paolo Foscari tells that he had been in Flanders, in the service of Archduke Albert of Austria. This must have been before 1621, when Albert died. Presumably Foscari held a post as a lutenist or theorbist in Brussels.

The *Corrente* in French style from Foscari's *Terzo libro* (c. 1630, p. 99), written for 'open G' tuning, ends with a short *campanelle* section (ex. 14a), not making use of the octave strings on the fifth and fourth courses.<sup>18</sup> In this sense it can be compared to the *campanelle* from the lute repertoire, like the ones in Gaultier's *Carillon*.<sup>19</sup> It may even raise the question whether or not Foscari strung his guitar with high octave strings, placed at the 'bass side' of the course (as in ex. 14b). Later, Bartolotti and Corbetta also performed at the courts of Europe, and in their works we can see an increasing influence of the French style.

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endless permutations (changes) which may give the impression of melodic discontinuity. This effect can somehow be compared to the octave displacement of certain notes on the guitar. See <https://www.youtube.com/watch?v=CBRIYpXfnVs&t=4s> or <https://www.youtube.com/watch?v=pugRM2Nsnyo>

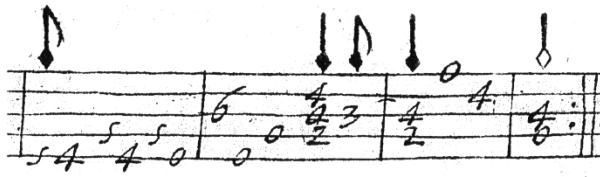
<sup>15</sup> See <http://www.kongernessamling.dk/en/rosenborg/object/astronomical-clock/>

<sup>16</sup> In Marin Mersenne's *Harmonie Universelle* (Paris, 1636), the fully mechanical *carillon* is described. Some years later followed by Athanasius Kircher's *Musurgia Universalis* (Rome, 1650).

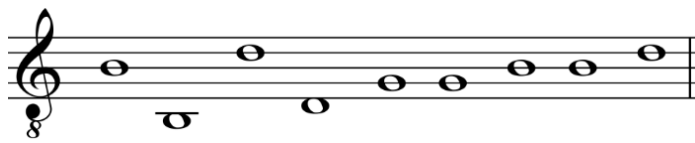
<sup>17</sup> See <http://gallica.bnf.fr/ark:/12148/btv1b530592353/f9.item.p.5>. This piece must have been composed at some moment before 1651, the year of Gaultier's death. This *gigue* contains some 'campanelle' fingerings (notably in measure 2 and 3). Louis Couperin's *Les carillons de Paris* for harpsichord was written at about the same time. The sounds of bell-ringing had been imitated before, in William Byrd's *The Bells*, and in Thomas Robinson's *Twenty waies upon the bells* for two lutes (*The Schoole of musick*, London, 1603).

<sup>18</sup> Listen to Foscari's *corrente* at: <http://www.lexeisenhardt.com/audio/12>.

<sup>19</sup> In the *Ouvres de Pierre Gautier* ("Gautier de Rome," who was probably not related to Ennemond and Denis Gaultier), published in Rome in 1638, there is a *Chaconne* with extended *campanella* passages and slurred scales, rather unusual for the lute music of the time, and possibly inspired by the experiments of theorbists and guitarists. See Eisenhardt (2015), p. 94.



Example 14a, Foscarini (c. 1630), p. 99.



Example 14b. Foscarini's 'open G' tuning.

One defining characteristic of the music of the bells is that melody tends to become harmony at the same time, and with that the distinction between consonance and dissonance becomes ambiguous. This may be one reason why the octave displacement of a single note was not considered very problematic, in particular on the guitar. Finally, it is still possible that the idea of cross-string playing emerged first, as a by-product of the re-entrant stringing of the theorbo and guitar, and that the label 'campanelle' was attached to it only later.

We often find campanelle in pieces with a moderate tempo, such as the chacone, passacaglia, or sarabanda. The melodies of the bells usually move rather slowly, and there is little reason to assume that the campanelle of the guitar were just used to play very fast scale patterns. Moreover, the same melodies could have easily been performed, and they often were, as 'linear' scales fingered on adjacent courses, with or without slurring. By doing so there would not be any displaced notes. The love for cross-string fingerings on the theorbo, lute, and guitar (in campanelle and trills), which result in a spacious over-legato, should probably be seen to the background of a contemporary taste for idiosyncratic effects, in instrumental music.

As the seventeenth century progressed, melodic passages were no longer exclusively performed as individually-plucked notes, but also with many left-hand slurs and cross-string fingerings. This tendency is reflected in Kapsberger's works for the theorbo, for example, and it became a basic principle of the French *stile luthé* (or 'stile brisé', as it is often called today), in which parts are played successively rather than simultaneously, spread out as irregularly broken chords, in works of composers such as Ennemond Gaultier, François Dufaut, and Jacques Gallot.<sup>20</sup> Contrary to the more

<sup>20</sup> 'The "style brisé" was first used as a thoroughgoing principle by Robert Ballard . . . in the varied repeats (*doubles*) of courantes in his lute books of 1611 and 1614, and it subsequently became the distinctive French lute texture. Its aim is twofold: to give subtlety of expression to what would otherwise be an ordinary harmonic progression, and to provide a continuum of sound which the player can mould for expressive ends.' *Grove Music Online*, s.v. "style brisé," by David Ledbetter, accessed November 14, 2017, <http://www.oxfordmusiconline.com>.

uniform (slight) non-legato of the earlier technique, slurring produces a perfect legato. At the same time, the dynamic relation between the notes changes, as well as accentuation, and even tone colour. Articulation became one of the most important means of expression, not only on the lute and guitar but on all other seventeenth-century instruments.

Although some of the more extreme *campanelle* from Granata's 1674 book can be confusing to the listener, the displaced notes in other situations (ex. 7a and 8, for example) are relatively unproblematic. Even the ones in Gaspar Sanz's *passacalle* (ex. 10) are somehow acceptable, as the melodic sequence reveals the composer's intentions. In any case, it's probably not the best solution to try to adapt the stringing to every anomaly, as there will always be situations in which this is physically impossible. And what's more, by doing that we would be missing some of the characteristic idiosyncrasies of the guitar music of the time.