

Mersenne's Clavichord



Keyboard Music in 16th- and 17th-century France

Terence Charlston

Mersenne's Clavichord

I. The sixteenth century

1	Sancta Trinitas (Antoine de Févin)	4:57
2	Prélude sur chacun ton (anon.)	4:06
3	Longtemps y a que je vis en espoire (anon.)	3:05
4	La Magdalena (Pierre Blondeau?)	2:22
5	Prélude (anon.) – Fantasia (Guillaume Costeley) – Hors envyeux (Nicolas Gombert)	3:41
6	La Bounette (anon.)	1:19
7	Gamba Gagliarda – Moneghina Gagliarda (Antoine Gardane?)	1:14
8	Prelude (Pierre Megnier) – Pavane (Jacques Cellier)	2:26

II. The early seventeenth century

9	5 pieces: Canaries – Borree – Volte appelée la Marcielleze – Pavane de Aranda – Fantasia sur l'air de ma Bergerer	2:54
10	Fantasia (Charles Racquet)	7:06
11	Tu crois, ô Beau Soleil (Pierre [iii] de la Barre)	2:36
12	Praeludium – Volte (Mercure d'Orléans)	2:27
13	4 Preludes (anon.)	2:27
14	Toccatà in C (Jan Pieterszoon Sweelinck)	4:01
15	5 pieces: Bergamasca – Gavotte – Courante 'La Chabotte' – 'Hereux séjour de Partenisse' (Boësset) – Bransle 'Les Frondeurs' (Pinel)	4:12
16	Echo in F (Gérard Scronx)	3:05

III. The later seventeenth century

17	Prélude in D minor (Jean Henry D'Anglebert)	5:15
18	Sarabande in A minor (Jacques Champion, Sieur de Chambonnières)	2:28
19	Duo (Louis Couperin)	2:40
20	Recit à trois (Nicolas Gigault)	3:06
21	Laissez paistre vos Bestes (Nicolas Lebègue)	1:49

total duration

68:36

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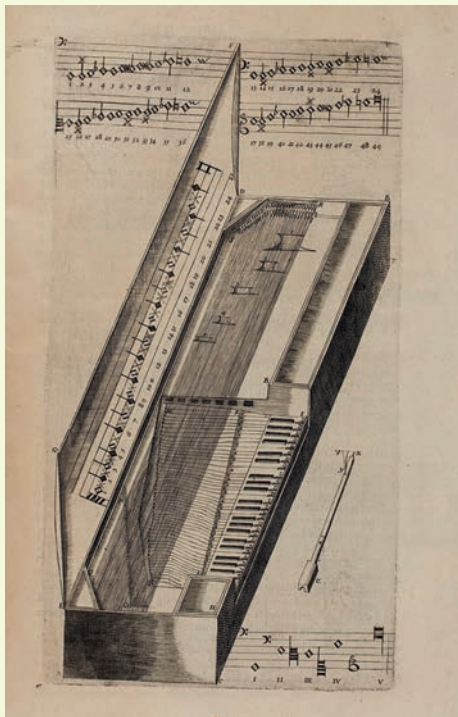
Two hundred years of keyboard music in France

A recording of sixteenth- and seventeenth-century keyboard music performed on a reconstruction of the clavichord described in Marin Mersenne's *Harmonie Universelle*.

Pitch: $a^1 = 392\text{Hz}$

Temperament: quarter-comma mean-tone

Terence Charlston, Clavichord.



The engraving of a manichord in *Harmonie Universelle*.

Facsimile image of page 107 from Marin Mersenne, *Traite des instrumens a cordes* (Paris: Pierre Ballard, 1637), taken from a copy in the Robert Spencer Collection. Reproduced by kind permission of the Royal Academy of Music Library, London.

The Music

This recording is part of a broader project to explore sixteenth- and seventeenth-century French keyboard music through the touch and sound of the clavichord. Modern players and makers have tended to attach little importance to the rôle of the clavichord in the development of French keyboard music. This is for two main reasons. Firstly, we lack original instruments to play and copy since no clavichords of incontrovertible French origin survive. Secondly, the era of the clavichord's greatest popularity in France, the sixteenth century, overlaps with a lacuna of nearly 150 years from which practically no printed or manuscript keyboard music remains. Nonetheless the clavichord was highly valued within late-renaissance culture and continued to be used by musicians into the seventeenth century and later. At least forty-one professional musicians between 1557 and 1793 possessed one or more clavichords (including Armand L. Couperin in the year of revolution, 1789) and some famous harpsichord makers (for example, Henri Hemsch) had clavichords in their workshops. Like the lute, the clavichord's intimate and expressive voice must have enjoyed a favoured status in aristocratic and learned circles.

The clavichord was known in France from at least the fifteenth century. It is described and illustrated in the treatise of Henri Arnaut de Zwolle (astronomer and physician to Philip the Good, Duke of Burgundy, and later in Paris to Charles VII and Louis XI), which dates from the 1440s. Literary sources also attest to the fashion for the clavichord at court. The word for clavichord, *manicordion*, entered popular speech, for example, as in the expression 'Elle a joué du manicordion' which implied that a young girl had a lover. The clavichord's popularity was at its height in France in the sixteenth century. Nicolas Bontemps was building clavichords in Lyons between 1506 and 1516 and the publishers Attaignant and Gardane cite the clavichord amongst the instruments suitable for the performance of their keyboard prints. The clavichord is shown accompanying the recorder in a Gobelin tapestry and Jacques Cellier (see track **8**), organist of Rheims Cathedral, noted the identical case structure of the *épinette* (a rectangular virginals, here translated as 'spinet') and the clavichord (c. 1587). Clavichords were present in the workshops of Yves Mesnager (1556) and Claude and Robert Denis (1587 and 1589), and in musicians houses, for example, Nicolas Robillard (1557). The Parisian organist, Guillaume Ragueneu, is recorded in the *Minutier central* of 1557 as contracted to give lessons on the spinet

and clavichord. The court musicians, particularly the specialist *joueurs d'épinette* such as Pierre and Jean Dugué, and Thomas Champion, must surely have played both clavichord and spinet.

In the early seventeenth century, clavichords are mentioned in many official inventories. These include evidence of clavichord related trade with Spain (1606 and 1628), and clavichords within the estates of the instrument makers, Jean Jacquet (1632), Jean Denis (1672) and Pierre Baillon (1682), and eight musicians including Pierre Chabanceau (1600), Nicolas Gigault (1662) and Henri Dumont (1684). Pierre Trichet, in his *Traité des instruments de Musique* (c. 1640) notes its usefulness to train the hand in 'suppleness on the harpsichord, spinet or the organ' (1640). Trichet also states his preference for the word *clavichordium* to designate 'clavichord' rather than *manichordion* which can be mistaken for another instrument, the monochord. *Clavichordium* can mean any keyboard instrument or more specifically a harpsichord, however, so rather than clarifying the matter, Trichet serves to underline the inherent problems of musical instrument terminology in historical documents. The lack of a single surviving French clavichord makes the detailed description and plans in Marin Mersenne's *Harmonie Universelle*, published in Paris 1636 or 1637 all the more significant and tantalising.

Marin Mersenne (1588–1648), theologian, philosopher and mathematician, was fascinated by music and sound. He corresponded widely to assemble the material for his monumental musical encyclopedia, *Harmonie Universelle*, and took great pains to get it printed. In the fourth part, the *Traité des Instrumens*, he includes, amongst descriptions of other more familiar stringed keyboard instruments including the virginal (*épinette*), and the harpsichord, a detailed account and illustration of the clavichord. Although no clavichord sharing Mersenne's unusual design has survived, there is no reason to doubt that such instruments existed or that Mersenne had first-hand experience of them. Mersenne's illustration has been shown to be isometric and the exact proportions he gives have enabled the British clavichord maker, Peter Bavington, to build a working example. Playing this meticulous and very musical reconstruction inspired my search to understand how such an instrument might have been used and what music might have been played upon it. It has a distinctive and attractive sound, similar in many ways to the lute or guitar, and is an elegant vehicle for all styles of keyboard music current at the turn of the sixteenth century and later.

TRAITE^s DES INSTRUMENS A CHORDES.



Facsimile image of the title page of Marin Mersenne, *Traite des instrumens a cordes* (Paris: Pierre Ballard, 1637), taken from a copy in the Robert Spencer Collection. Reproduced by kind permission of the Royal Academy of Music Library, London.

Finding appropriate repertoire for the Mersenne clavichord is not quite as simple as it might seem. Very little French keyboard music survives from the period after the seven printed keyboard books published by Pierre Attaingnant (c. 1494–1551/2) in 1531 and before the relative wealth of surviving late seventeenth-century manuscript and printed volumes. Exceptions to this dearth of printed material include the two volumes of organ music by Jehan Titelouze (1623 and 1624), *Fugues et caprices* by François Roberday (1660), and a few keyboard versions of ensemble pieces by Henry Du Mont (1652 and 1657). All seven of Attaingnant's seven keyboard publications include the clavichord in their titles, 'en la tablature du ieu Orgues, Espinettes et Manichordions' for example, but no later sixteenth-century publication specifies clavichord performance.

Keyboard players of the time did not limit themselves, however, to playing just one type of keyboard instrument but rather realised their musical ideas, often improvised, on any one of the many different types available to them. These included the harpsichord family (plucked strings), organs (both in church and in secular spaces) and the clavichord. Generic keyboard music (i.e. specific to a certain instrumental tradition, e.g. organ or harpsichord) can also be performed on instruments other than the one seemingly intended. Throwing their net ever wider, keyboard players were arranging non-keyboard music. Vocal intabulations (motets, chansons), instrumental counterpoint and dances, and lute music in general, were fair game for any keyboard instrument, not least the clavichord.

A vast range and number of pieces (running to many hours of music) were considered for inclusion in this recording, and these have been reduced to a handful of representative items. The recording is divided into three main historical periods, the sixteenth century, the early seventeenth century and the later seventeenth century. This chronological progression is interleaved with different genres and styles.

Lute music translates well to the clear speech, refined sonority and subtle dynamic nuance of the clavichord. As David Ledbetter has comprehensively shown, the sound and technique of the lute style was fundamental to the evolution of the mature French harpsichord style. One very important outcome of this project and recording is the demonstration of how well the earlier keyboard music sounds performed on the clavichord, suggesting an earlier evolution of the *clavecinistes* touch and repertoire in which the clavichord played a significant part located somewhere between lute and spinet.

Following the lead of contemporary players, I have made several arrangements of my own. These include pieces from Attaignant's publications (**1–5**), the *Praeludium* and *Volte*, (**12**) by the lutenist Mercure d'Orléans (*floreat* c. 1590– c. 1619) and the song *Tu crois, ô Beau Soleil'* (**11**), included in Mersenne's *Harmonie Universelle*. In these performances I employ the lutenist's familiar *brisure* (the breaking of a chord into successively sounding notes), a practice at least as old as the generation of Alberto de Rippe, the Italian court lutenist from 1528 until 1551.

The increasing demand for lute and keyboard arrangements of dance and vocal music in the sixteenth century was supplied, in part, by printed editions: especially those of Pierre Attaignant, but also by Antoine Gardane (1551) (see the two galliards, track **7**), and the lost books of Simon Gorlier (*Premier livre de tabulature d'espINETTE*) and Jacques Moderne (Guillaume de Brayssingar, *Tablature d'epINETTE*, 1536). Many pieces were published without any clear attribution and so the authorship of much of this music remains difficult to establish. The 'P.B.' next to the title of *La Magdalena* (**4**), for example, may refer to the lutenist, Pierre Blondeau, acting perhaps as composer and/or editorial assistant to Attaignant.

Numerous keyboard and lute arrangements of polyphony survive in Attaignant's prints. The graceful lines of the four-voice motet and chansons (**1**, **2**, **3** and **5**) assume a further dimension when realised by a single person, as it were, expressing text and sentiment in their playing rather than by vocalising words. The compositions of the prolific Antoine de Févin, (c. 1470–1512), a French nobleman, were sufficiently esteemed to be published by Petrucci. His *Sancta Trinitas* (**1**) was set many times and taken as a model for parody by other composers. I combine an anonymous prelude, with Gombert's chanson and an incomplete fantasie by Guillaume Costeley (c. 1530–1606) to form a longer set (**5**). Nicolas Gombert (c. 1495–c. 1560) was a celebrated singer and employee of Charles V, the Holy Roman Emperor. Costeley was the pre-eminent composer of chansons of his day, composer to the court of Charles IX and a member of Baif's influential *académie*. His fantasie is probably a short section from an unidentified chanson and survives on a single folio in the centre of which is placed a drawing of a spinet. It comes from one of two manuscripts of Jacques Cellier which also includes a drawing of a clavichord not unlike Mersenne's. The prelude by Pierre Megnier (**8**) comes from the same manuscript. Its companion piece, Jacques Cellier's Pavane, also includes a drawing of a keyboard, and is the only substantial piece from this period, dated 1594. All three pieces are carelessly notated and need generous interpretation to bring back into sound.



Facsimile image of 'La bouquette' taken from folio 15^r of the Mulliner Book (GB-Lbl Add. MS 30513).
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French keyboard music travelled outside France in a variety of different sources. 'La bouquette' (6) is from the Mulliner Book (GB-Lbl Add. MS 30513), a musical commonplace book compiled, probably between about 1545 and 1570, by Thomas Mulliner, probably in London. It consists of two-parts only, treble and bass, notated on two staves with six lines for the right hand, five for the left and a single, bold line in between representing middle-C (c').

Gombert's 'Hors envyeux' (**5**) is from a German Tablature book of French chanson (*GD-Mbs Mus. Ms. 2987*) in which the treble voice is notated on 5 lines but with the remaining three voices in German organ tablature.

I have made a suite of five pieces from the 'Aberdeen manuscript' (*GB-A pi 7841 Arc*) (**9**). This little known source of French keyboard music dates from about 1610 when twenty-four short dances and songs were added to a printed copy of Arcadelt's first book of Madrigals (published by Antoine Gardano or Gardane in Venice in 1551).

Paris Bibliothèque Sainte-Geneviève Ms 2350/57 is also an early source, dating from the 1630s, with contents and notations (including letters for note pitches) similar to the Aberdeen manuscript. A suite of five pieces has been drawn from its contents of thirty-six songs and dances (**15**). 'Hereux séjour de Partenisse' is by the leading composer of *airs de cour*, Antoine Boësset, Sieur de Villedieu (1586–1643) and the Bransle 'Les Frondeurs' (mistakenly titled 'Courante' in the manuscript) is by Germain Pinel (early 1600s–1661), lutenist and teacher of the young Louis XIV.

The song arrangements, *Fantasia sur l'air de ma Bergerer* (**9**), 'Tu crois, ô Beau Soleil' (**11**) and Boësset's 'Hereux séjour de Partenisse' (**15**) derive, presumably, from the *air de cour* tradition. *Tu crois, ô Beau Soleil* is printed in Mersenne's *Harmonie Universelle*. The music of the air is given in full and is attributed to 'Le Roy', Louis XIII. A few pages later Mersenne prints the opening couple of bars of eight diminutions on this same air by Pierre [iii] de la Barre (1592–1656) as a guide to playing divisions: the diminutions divide the quickest moving part, first into eighth-, then sixteenth-, thirty-second-, and finally sixty-fourth-notes. On this recording, the air is followed by a single, improvised variation adopting the principles and spirit of de la Barre's division technique rather than following his pedantic mathematics literally.



'Tu crois, ô Beau Soleil' attributed to Louis XIII. Facsimile image taken from page 139 of Marin Mersenne, *Harmonicorum libri* (Paris: Gvillielmi Baudry, 1636) (the Latin edition of *Harmonie Universelle*). Reproduced by kind permission of the Royal College of Music, London.

142 **Liber Quartus**
Omnifaria prima vociferis Cantilena procedenti Diminuta.

Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil.

Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil.

Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil.

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Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil.

Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil.

Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil.

Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil.

Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil. Tu crois, ô Beau Soleil.

Diminutions on 'Tu crois, ô Beau Soleil' by Pierre [iii] de la Barre. Facsimile image taken from page 142 of Marin Mersenne, *Harmonicorum libri* (Paris: Gvillielmi Baudry, 1636). Reproduced by kind permission of the Royal College of Music, London.

The most extended piece on this recording, Charles Racquet's four-part *Fantaisie* (**10**), comes from a hand-written keyboard score found inside Mersenne's personal copy of *Harmonie Universelle*. This contrapuntal *tour-de-force* was provided at the author's request, 'pour l'exemple de ce qui se peut faire sur l'Orgue'. Racquet (1597–1664) was organist of Notre Dame Cathedral in Paris and adviser to Mersenne who considered him 'one of the best contrapuntists of this age'. The *Fantaisie* is indeed one of the finest fugues of the period and a reminder of the high value placed upon both compositional ingenuity and the performer's polyphonic virtuosity. It develops a single theme in three distinct sections each dividing the beat into ever smaller note values and culminating in brilliant passagework.

Commentators have noted the similarity of Racquet's counterpoint to the music of the so-called 'Netherlands school' of organists, led by Jan Pieterszoon Sweelinck (1562–1621), the famous Amsterdam organist and teacher. I have chosen three pieces to represent the Flemish/Dutch influence in France. Two pieces are from the *Liber Fratrum Cruciferorum Leodiensium* (1617): one is by Sweelinck himself (Toccata, **14**) and one by the probable scribe, Gérard Scronx, a monk at the monastery of the Crutched Friars in Liège (Echo in F, **16**). The four preludes (**13**) are from a set of ten psalm-tone intonations from another Southern Netherlands manuscript of similar date and provenance (*GB-Lbl* Add. MS 29486).

The three pieces which end this recording are drawn from the Classical French organ repertoire and have also been chosen for their vocal qualities. The *Recit à trois* (**20**) by Nicolas Gigault (1627–1707) is a short motet for treble voice in all but name and here displays the cantabile qualities of the top of the Mersenne clavichord and demonstrates the use of vibrato as an ornament. Gigault was a Parisian organist who owned at least three clavichords. The *Laissez paistre vos Bestes* (**21**) by Nicolas Lebègue (c. 1631–1702) is one of the many *Noëls* which were sung in the streets at Christmas time and then improvised upon by organists in church services to popular acclaim. Lebègue sets this melody as a folk dance with jaunty rhythmic inequalities notated in triple metre. Lebègue was organist at the court Louis XIV and also a distinguished harpsichordist.

The third organ piece, the *Duo* (**19**) by 'Mr. [Louis] Couperin' comes from the Bauyn manuscript, one of the most important sources for French harpsichord music of the seventeenth century. It is preceded by two harpsichord pieces, the well-known *Prélude* (**17**) from the D minor suite by Jean Henry D'Anglebert (1629–1691) and an incomplete

Sarabande (18) by Jacques Champion, Sieur de Chambonnières (1601/2–1672) from the Oldham manuscript. During the seventeenth century the clavichord, like the spinet, gradually gave way to the harpsichord and composers began to write specifically for this larger and more powerful instrument. Chambonnières was the founder of the French harpsichord school, while Louis Couperin (c. 1626–1661) was one of its most original voices. To perform this ‘main stream’ harpsichord music on the clavichord is an audacious and instructive step which opens up a new range of expressive possibilities. The different dynamic and acoustical space of the clavichord, which change the player’s sense of timing and gesture, can be transferred back to the harpsichord. Informed by this experience, harpsichord performance of the same repertoire gains a greater awareness of touch and perhaps less reliance on the sheer sonority and power of its plucked sound.

The design of the Mersenne clavichord has a direct impact on its touch and sound. Its full, chromatic compass suits the majority of the repertoire and its light key action, with long keys and tangents, is not dissimilar to a lightly voiced Franco/Flemish harpsichord. The sound is greatly affected by the five bridges, each of which has a distinctive sound with the difference between bridges most pronounced where one ends and another begins. Thus the instrument can be said to have (at least) four registers or characters, approximately corresponding to the vocal ranges, treble, alto, tenor and bass. These characteristics are distinctive from other contemporary clavichords and set considerable technical and interpretational challenges for the player to overcome.

How should one listen to this recording? The clavichord has a surprisingly large dynamic range for such a quiet instrument. The listener, like the player, must attenuate their hearing to its infinite gradations of tone. The experience of being drawn into a lower, but more intense volume level, is undoubtedly part of the unique charm of the clavichord and other quieter instruments. Such intimate listening is not easily achieved in the modern world. Matt Parkin and Andy Denyer have worked hard to record the sound of the instrument as faithfully as possible. The recording was made very close to the instrument so the listener will hear the same detail as the player. To simulate the actual volume of the clavichord, the listener is encouraged to keep the volume of their audio equipment relatively low. I hope you enjoy this most unusual recording.

Terence Charlston, Harpenden, 2015.



Bavington reconstruction.

View of keyboard, tangents (below strings) and rectangular holes below soundboard.

View of the soundboard from above showing the five bridges, the keys and the red listing cloth at the non-sounding (far) end of the strings.



The Instrument

Marin Mersenne's description of a manicordion does not resemble any surviving clavichord at all closely, and the depiction, to the eye accustomed to perspective drawing, looks distorted and out of scale. This led several commentators to characterise Mersenne's account as 'inconsistent and vague' and to suggest that it was based on fantasy rather than on a real, observed instrument. However, Maria Boxall showed in an article in the Galpin Society Journal in 2001 that it is, in fact, both precise and detailed, and the engraving shows the instrument's true proportions in an early form of isometric projection. Such inconsistencies as there are can be fairly easily resolved.

Inspired by Maria's article, in late 2010 I decided to attempt a reconstruction, and the instrument used on this recording is the result. It was not too difficult to extract a practical design from Mersenne's text and accompanying engraving, but it required some determination to persist in following the evidence when the design was so strikingly different from that of surviving clavichords. Most of them are, of course, much later in date, and their qualities and parameters are now fairly well understood. By comparison, Mersenne's clavichord was *terra incognita*. It is much larger, for its four-octave compass, than a typical late seventeenth- or eighteenth-century instrument: the case is, in particular, very much deeper. However, it is related to certain surviving early Italian clavichords in having several bridges, each arranged at right angles to the axis of the case, without any bridge-pins, so that the strings must press down on the bridges to maintain firm contact. This way of arranging the bridges derives ultimately from the very earliest type of clavichord, known to us only from fifteenth-century depictions from various parts of Europe. Mersenne's clavichord is an enlarged and developed example of this early type, representing perhaps the final stage in a tradition of making clavichords in this way. It has a compass of 49 notes $C-c^2$ and is diatonically fretted (that is, no more than two notes share the same pair of strings).

The first step was to reconstruct the design of the case. Some simple and elegant proportions are clearly shown in the engraving. For example, the length is exactly three times the width; the keywell is equal to the soundboard width; the toolbox at the left-hand end occupies exactly one tenth of the whole length; and the depth of the case is $1\frac{1}{2}$ times the width of the box. The problem was to interpret these proportions in terms of actual measurements. Stephen Birkett and William Jurgenson had suggested that

keyboard instrument makers began with a single measurement – the width of the keyboard opening – and determined all the other dimensions by means of a series of manoeuvres with straightedge, try-square, beam compass and dividers. Accepting this hypothesis, I fixed the keyboard width by referring to the keyboard of a typical seventeenth-century French harpsichord, resulting in 24 Paris *pouces* for the four-octave compass (C-c²) of Mersenne's clavichord. All the other main dimensions could be derived from this starting point, producing a design which, however unusual, seemed plausible and coherent.

Many details can be derived directly from Mersenne: for example, the shallow coffered lid (which provides a way of creating a large one-piece lid that is stiff but not over-heavy). The natural keys are white rather than black because that seems to be the way they are depicted in the engraving (in contrast, the naturals on the harpsichord depicted a few pages earlier in Mersenne's work seem to be black). The heights of the five soundboard bridges are progressively reduced from bass to treble. There is an oblique left-hand bridge which is supplied with bridge-pins: why is it there? I concluded that its function was not to produce sound, but to regulate the positions of the string courses, preventing them from being pushed too far forward by the action of the long tangents. Key-guidance is by means of metal pins working in a rack, as prescribed by Mersenne: a system quite usual on harpsichords but rare on clavichords, which needs to be made with extreme care in order to avoid introducing excessive action noise.

Details which could not be derived from Mersenne were sometimes provided from surviving contemporary French harpsichords. The case material (walnut) was chosen on this basis, for example, and the stand, with barley-sugar twist legs at the corners. Mersenne shows the clavichord without any frontboard behind the keys, but I came to the conclusion that there almost certainly was one, and it had simply been removed for Mersenne's 'photo session', accordingly I added one, using a contemporary harpsichord as a model.

A well-functioning stringing had to be found, essentially by trial and error, since Mersenne does not go into string gauges or even string material. With five separate bridges placed on different parts of the soundboard it is impossible to produce complete homogeneity in the sound from note to note. The aim was rather to allow some differentiation between the different parts of the compass while avoiding gross incongruity. A combination of iron and brass wires was necessary. For the lowest four bass notes, strings consisting of two wires that are tightly twined together were used (*redoublées et retorces*, as prescribed by

Mersenne); for this recording, we took the liberty of departing slightly from Mersenne by tuning the apparent bottom C# key to low AA. Finally, the instrument had to be set up to play as well as it could: this involved fitting listing, in the red cloth prescribed by Mersenne, and careful voicing of the unusually tall tangents with their hand-forged heads.

Peter Bavington

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- For more details of Peter Bavington's reconstruction, see <http://homepage.ntliworld.com/peter.bavington/mersenneintro.htm>.



Peter Bavington was born in 1941 and educated in London and Exeter. After working for many years as a Civil Servant, he decided in 1982 on a complete change of career and enrolled at the London College of Furniture (now London Metropolitan University), where he studied early keyboard instrument making and restoration under Lewis Jones. In 1985 he obtained his Higher National Diploma in Musical Instrument Technology with distinction in every unit.

He then spent two years working with John Rawson before founding his own London workshop, making and restoring harpsichords, clavichords and fortepianos. In addition to individual musicians, his customers have included the Royal Academy of Music, the Guildhall School of Music and Drama, and the Hochschule der Künste Berlin.

For the past 25 years, Peter has focused mainly on the clavichord; he believes that to produce a really responsive clavichord is the supreme challenge for a keyboard instrument maker. As well as making and restoring instruments, Peter has undertaken historical and acoustic research, and has contributed papers on several subjects to the International Clavichord Symposia in Magnano, Italy. He is a founder member and past Chairman of the British Clavichord Society, and author of a book on Clavichord Tuning and Maintenance.

Terence Charlston enjoys a varied career as a soloist, chamber musician, director, teacher and academic researcher. Born in Blackpool, Lancashire, he was drawn to the sound and repertoire of old instruments, especially the harpsichord, from an early age. He studied organ and harpsichord in Oxford and London where he took degrees in Music. Since then he has toured worldwide as a harpsichord and organ soloist and can be heard on nearly 100 commercial CDs playing all manner of historical keyboards including virginal, clavichord and fortepiano. His concert repertoire spans the 16th century to the present day, reflecting a passionate interest in keyboard music of all types and styles. He was a member of London Baroque from 1995 until 2007 and is a core member of the ensemble Florilegium. He has recently recorded with the Magdalena Consort and is a member of The Society of Strange and Ancient Instruments. He was a Patron and Guest Director of the Lancashire Sinfonietta from 2009 until 2015.

An authority on English and continental Baroque keyboard music, he has been responsible for many pioneering concerts, recordings and editions. These include music by Matthew Locke, Carlo Ignazio Monza, Albertus Bryne, William Byrd, the manuscript of Antoine Selosse and an extensive series of later seventeenth-century English keyboard sources in facsimile. Terence is a respected advocate of early keyboard instruments within the educational sphere and is privileged to have been given a significant role in the training of younger players. He has taught harpsichord and basso continuo at the Royal Academy of Music in London since 1989 and founded its Department of Historical Performance in 1995. He joined the staff of the Royal College of Music, London as professor of harpsichord in 2007, and in 2009 he was appointed Visiting Fellow in Harpsichord at the Royal Northern College of Music in Manchester, where he is now International Visiting Tutor in Harpsichord.

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Terence Charlston sitting at the reconstruction of the 'Mersenne' clavichord made by Peter Bavington

This album was recorded in the Royal College of Music Studios, London, 28th and 29th August, 2014.

Recording engineering and editing: Matt Parkin and Andy Denyer

Recording producer: Matt Parkin

Photographs of the Bavington clavichord and Terence Charlston by Andy Denyer.

Programme notes © Terence Charlston, 2015.

Notes on the instrument © Peter Bavington, 2015

Booklet and packaging design: Stephen Sutton

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TC.

Terence Charlston presents “The Harmonious Thuringian”



Music from the early years of Bach and Handel by:

Johann C F Fischer

Louis Marchand

Johann P Krieger

Johann Krieger

Christian Ritter

Johann Christoph Bach

Tarquinio Merula

Friedrich Zachow

Johann Kuhlau

and of course

Johann Sebastian Bach

George Frederic Handel

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Performed on a replica of the sole surviving instrument from Bach's homeland of Thuringia.

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“Fine musical clarity and sensitivity ... exquisite performance...” - Bruce Reader (The Classical Reviewer)

“Charlston performs with elegance and refinement... virtuosic command... lyricism, graceful, well-paced phrasing. An excellent record with beautiful performances of an unusual collection of repertoire.” - Michael Unger (American Record Guide)

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