

Hudleston's Harmonic Sounds:  
An Evaluation of Josiah Hudleston's 1841  
Treatise on Guitar Harmonics

Redmond O'Toole

Dissertation submitted to the University of Dublin in partial fulfilment of  
the requirements for the degree Doctor in Music Performance

ROYAL IRISH ACADEMY OF MUSIC  
Supervisor: Professor Denise Neary

June 2020



## **Terms and Conditions of Use of Digitised Theses from Royal Irish Academy of Music**

### **Copyright statement**

All material supplied by Royal Irish Academy of Music Library is protected by copyright (under the Copyright and Related Rights Act, 2000 as amended) and other relevant Intellectual Property Rights. By accessing and using a Digitised Thesis from Royal Irish Academy of Music you acknowledge that all Intellectual Property Rights in any Works supplied are the sole and exclusive property of the copyright and/or other Intellectual Property Right holder. Specific copyright holders may not be explicitly identified. Use of materials from other sources within a thesis should not be construed as a claim over them.

### **Access Agreement**

By using a Digitised Thesis from the Royal Irish Academy of Music you are bound by the following Terms & Conditions:

I have read and I understand the following statement: All material supplied as a Digitised Thesis from the Royal Irish Academy of Music is protected by copyright and other intellectual property rights, and duplication or sale of all or part of any of a thesis is not permitted, except that material may be duplicated by you for your research use or for educational purposes in electronic or print form providing the copyright owners are acknowledged using the normal conventions. You must obtain permission for any other use. Electronic or print copies may not be offered, whether for sale or otherwise to anyone. This copy has been supplied on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.



## **Declaration**

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctor in Music Performance, is entirely my own work, and that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge breach any law of copyright, and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

Signed: Redmond O'Toole

ID No.: 15339723

Date: 1 June 2019

**Hudleston's Harmonic Sounds:  
An Appraisal of Josiah Hudleston's 1841 Treatise on Guitar Harmonics**

**Table of Contents**

Acknowledgements		iv
Abstract		v
List of Musical Examples		vi
List of Figures		vii
List of Audio Visual Recordings		viii
Introduction		1
Chapter 1	An Englishman in Madras	
1.1	Family and Birth	11
1.2	Education	13
1.3	The Journey to India	14
1.4	Time in India	15
1.5	Hudleston the Composer	16
1.6	Retirement: Cheltenham	18
1.7	Retirement: Dublin	21
1.8	The Collection	22
1.9	Summary	24
Chapter 2	Hudleston's Research	
2.1	Background to Harmonics	26
2.2	General Overview	34
2.3	Methods in the Collection	36
2.4	Examination of Hudleston's Method Books	39
2.5	Sor, Aguado and Carulli	41
2.6	The Missing Methods	43
2.7	Aguado's 1843 Method	47
2.8	Methods for Other Instruments	53
2.9	Summary	55

Chapter 3	Examination of the Treatise	
3.1	Opening Letter	57
3.2	Notation	58
3.3	Scale of G Continued	69
3.4	Chords in the Key of G	71
3.5	Scales in A	74
3.6	Three Pieces	75
3.7	Key of D Major	78
3.8	Tremolo	82
3.9	Arpeggios	83
3.10	Octaves	84
3.11	Arpeggios Continued	86
3.12	Fingerings	87
3.13	Scottish, Irish and Welsh Airs	88
3.14	2 <sup>nd</sup> Fret Harmonics	90
3.15	Key of F	91
3.16	Harmonic Tables	94
3.17	Multiple Positions	104
3.18	Summary	108
Chapter 4	Extended Techniques	
4.1	Ultra-High Harmonics	109
4.2	Artificial Harmonics	115
4.3	Harp Technique	121
4.4	Summary	122
Conclusion		124
Bibliography		127
Appendices		
Appendix A	Transcription of Treatise	133
Appendix B	Facsimile of Treatise	179
Appendix C	Letter from Simon Honeyman	223
Appendix D	Letter from Andrew Robinson	225
Appendix E	Timeline of Hudleston's career	226
Appendix F	Photograph of Hudleston	227
Audio Visual Recordings (DVD)		

## **Acknowledgements**

I would like to acknowledge the support of my supervisor Professor Denise Neary and the Library Staff at the Royal Irish Academy of Music, Philip Shields and Laoise Doherty. I also wish to acknowledge the support of my long-time mentor Oscar Ghiglia as well as my more recent mentor on the DMus programme, Hugh Tinney. In addition I would like to thank Simon Honeyman and Matthew Mazonak.

This project would not have been possible without the support of my wife, Antje, daughter, Frida, and my parents, Peter and Nuala.

This dissertation is dedicated to the memory of Dr Anne Leahy.

## **Abstract**

Josiah Andrew Hudleston (1799-1865) was a forgotten figure in the history of guitar until the early 1990s when his collection of guitar music was re-discovered in the basement of the Royal Irish Academy of Music in Dublin. His collection is now one of the largest in the world and holds over one thousand prints and over eight hundred manuscripts. Hudleston was part of a family of civil servants working for the East India Company. He spent the majority of his adult life living in Madras where he followed a steady career path, becoming the Chief Tax Collector in Madras in 1841. He returned to his native England in 1855 before retiring to Killiney, Dublin, a year later. Shortly after his death in 1865, his widow left his collection of guitar music, methods and theory books to the Royal Irish Academy of Music in Dublin. The collection is like no other due to the fact that Hudleston collected the work of his contemporaries and it contains works by all of the main guitarist-composers of the period. In addition there are also numerous compositions from Hudleston himself as well as his ‘Treatise of Harmonic Sounds’.

No other method or publication has gone into such detail on the subject of harmonics either before or since. This document gives us a new insight into nineteenth-century guitar technique that will be a worthy asset to the study of authentic guitar performance. The treatise is unpublished and has to date only been viewed by a handful of people. In this dissertation Hudleston’s treatise will be examined and compared to the advice of his contemporaries with comment on the originality of his ideas. In response to this thesis twenty-first-century performers may have to re-evaluate their execution of harmonics in the romantic guitar repertoire.

## List of Musical Examples

### Chapter Three

Musical Example 1.	Scale of G in Harmonics*	59
Musical Example 2.	Sor's Notation	60
Musical Example 3.	Final Bars of Sor's <i>Fantasia Elegiaque</i>	61
Musical Example 4.	From Kirkmann's Method	62
Musical Example 5.	Kirkmann Second Version from Method	62
Musical Example 6.	Carulli's Notation	63
Musical Example 7.	Pratten Ex. 216 Guitar School	64
Musical Example 8.	Pratten Ex. 218 Guitar School	65
Musical Example 9.	Pratten Ex. 220 Guitar School	66
Musical Example 10.	Pratten Ex. 221 Guitar School	66
Musical Example 11.	Phipps Harmonics in Imitation of a Horn	68
Musical Example 12.	Pelzer's Notation	68
Musical Example 13.	Brown's Notation	69
Musical Example 14.	Chords in the key of Sol*	72
Musical Example 15.	Auld Lang Syne*	73
Musical Example 16.	Hudleston's Scale in A*	74
Musical Example 17.	Lower Octave in A	75
Musical Example 18.	Sons Harmoniques*	76
Musical Example 19.	Legnani Extract*	77
Musical Example 20.	Legnani Caprice 25*	78
Musical Example 21.	Scale in D*	79
Musical Example 22.	Rousseau's Dream*	81
Musical Example 23.	Rousseau's Dream, 6 <sup>th</sup> Variation*	82
Musical Example 24.	Rousseau's Dream in Tremolo*	83
Musical Example 25.	Arpeggios*	84
Musical Example 26.	Octaves	85
Musical Example 27.	Octaves Continued	86
Musical Example 28.	Arpeggios with Static Left Hand*	87
Musical Example 29.	Here's a Health to Those Far Away*	89
Musical Example 30.	God save the King	91
Musical Example 31.	Scale in F*	92
Musical Example 32.	Exercise in F	93
Musical Example 33.	Scale in E	94

### Chapter Four

Musical Example 34.	Artificial Harmonic Scale	116
---------------------	---------------------------	-----

\*denotes that example is recorded on the attached DVD, see page viii for track listing

## List of Figures

### Chapter 1

- Figure 1. Cover of Regondi's Ten Etudes 20  
Figure 2. Hudleston's notes on *Fantasia* by Nüske 20

### Chapter 2

- Figure 3. Harmonic Series Table by John Taylor 33  
Figure 4. Nüske's Typesetting 41  
Figure 5. Table from Sor's Method 46  
Figure 6. Aguado's 1843 Table of Harmonics 52

### Chapter 3

- Figure 7. Hudleston's Margin Notes from *Guitar School* 67  
Figure 8. Hudleston's Harmonic Table 96  
Figure 9. Aguado's Harmonic Table 98  
Figure 10. Carulli's Harmonic Table 99  
Figure 11. Sor's Harmonic Table 100  
Figure 12. Kirkmann's Harmonic Table 101  
Figure 13. Pratten's Natural Harmonic Table 102  
Figure 14. Pratten's Artificial Harmonic Table 103  
Figure 15. Table of Enharmonic Equivalents 106

### Chapter 4

- Figure 16. 72 Fret Fingerboard 113  
Figure 17. Upper Five Octaves 114  
Figure 18. Node Comparison 115  
Figure 19. Carcassi's High Harmonics 120

## List of Audio Visual Recordings (DVD)

1.	Musical Example 1.	Scale in G	59
2.	Musical Example 14.	Chords in the key of Sol	72
3.	Musical Example 15.	Auld Lang Syne	73
4.	Musical Example 16.	Hudleston's Scale in A	74
5.	Musical Example 18.	Sons Harmoniques	76
6.	Musical Example 19.	Legnani Extract	77
7.	Musical Example 20.	Legnani Caprice 25	78
8.	Musical Example 21.	Scale in D	79
9.	Musical Example 22.	Rousseau's Dream	81
10.	Musical Example 23.	Rousseau's Dream, 6 <sup>th</sup> Variation	82
11.	Musical Example 24.	Rousseau's Dream in Tremolo	83
12.	Musical Example 25.	Arpeggios	84
13.	Musical Example 28.	Arpeggios with Static Left Hand	87
14.	Musical Example 29.	Here's a Health to Those Far Away	89
15.	Musical Example 31.	Scale in F	92



## Introduction

### Josiah Hudleston

Josiah Hudleston (1799-1865) was a guitarist, arranger and composer who left behind perhaps the largest collection of nineteenth-century guitar music in the world. Until relatively recently he was a completely unknown figure long forgotten aside from a handful of dedications from important performers such as Giulio Regondi (1823-1872), Agustin Trinitario Huerta (1800-1874), Don Jose Ciebra (N.D.) and Catherina Pratten (Madam Sidney Pratten, 1824-1895).<sup>1</sup> In 1877, over a decade after his death, Hudleston's substantial private collection of music was bequeathed to the Royal Irish Academy of Music in Dublin by his widow, Ellen Langley (1819-1887).<sup>2</sup>

Born in Berkshire, England, Hudleston spent the majority of his adult life living in Madras and retired to Killiney, Dublin in 1857. The fact that his wife was from Offaly and his mother was from Donegal may have had some influence on his decision to relocate to Ireland.<sup>3</sup>

### The Forgotten Collection

There was no guitar teacher at the Academy when Hudleston's collection was received, or at least there is no record of one. The first guitar teacher was Elspet

---

<sup>1</sup> A. T. Huerta, *A. T. Huerta (1800-1874): Life and Works*, Javier Suárez-Pajares and Robert Coldwell (ed.) (San Antonio, Texas, DGA Editions, 2006). The introduction by Suárez-Pajares and Coldwell details the connections between Pratten, Huerta and Culebra in London, although does not mention Hudleston. However the connection is shown by Hudleston's margin notes in his collection detailing copies made for various performers and signed copies. Giulio Regondi's Ten Etudes are dedicated to Hudleston and his wife and are found in their earliest source as part of the Karl Scheit Collection in a copy made by Hudleston for M. Pratten.

<sup>2</sup> RIAM Govenors' Minutes of 9 May 1877, Irish National Archives (NA 112011 /7). Lucy Lavelle, 'Josiah Andrew Hudleston (1799 – 1865)' <<https://www.wikitree.com/wiki/Hudleston-60>> [accessed 14 May 2019].

<sup>3</sup> See chapter 1, 11.

Murray Hayden who taught during the 1950s.<sup>4</sup> Official records of guitar staff begin in 1963 with Jack Gregory, Arthur Dolsen (1971), Andrew Robinson (1972), Cecille Gormley (1980) and Marion Hyland from (1987-2019).<sup>5</sup> Earnest Earley, principally a flamenco guitarist, also worked at the RIAM from 1971 until 1973. If he had been aware of the collection it may not have been of interest to him.<sup>6</sup> It was Andrew Robinson who seems to have been the first to take any notice of the Hudleston collection. He looked through it but did not undertake any cataloguing or maintenance work.

Looking through the guitar music in the RIAM library, I came upon the manuscript and printed books from Hudleston's collection. Madame Pratten's instruction books were fascinating in their Biedermeier eccentricity; I wondered about making a facsimile publication of the Sor studies, but decided against it: facsimiles then were a bigger undertaking than they are now, perhaps.

What caught my eye most were the transcriptions in an immaculate hand of favourite opera excerpts, with enthusiastic notes in the margins: 'Ne Plus Ultra!' I had a sharply-etched glimpse of a gin-sipping colonial officer amusing himself at sunset on a veranda in distant India.<sup>7</sup>

Robinson's underestimation of Hudleston as 'a gin sipping colonial officer' was unfortunate but typical in relation to the collection. Hudleston was no doubt an educated musician and creative composer, the detail and value of his research is demonstrated on every page of his treatise.<sup>8</sup> The RIAM in general was unaware of the value of the collection and neglected it even when it first arrived. In the minutes

---

<sup>4</sup> Marion Hyland, in correspondence, 21 June 2019.

<sup>5</sup> Richard Pine & Charles Acton (ed.), *To Talent Alone: The Royal Irish Academy of Music, 1848–1998* (Dublin; Gill and Macmillan 1998) 483-493..

<sup>6</sup> According to Alan Grundy, former guitar teacher at the Dublin Institute of Technology, Earley taught entirely in the aural tradition of Flamenco and did not use sheet music for his teaching.

<sup>7</sup> Andrew Robinson, 'letter to Redmond O'Toole', 1 January 2019, see appendix D, 226.

<sup>8</sup> See appendix A, 125-146.

for the RIAM governors meeting on 9 May 1877 the collection is incorrectly referred to as Orchestral music.<sup>9</sup> It is little wonder that it received no attention for so many years. Apart from Robinson's brief curiosity the collection garnered little or no attention until the early 1990s. It was only through chance that an undergraduate guitarist, Simon Honeyman, re-discovered this jewel which was stored in a basement room and in a state of serious neglect. The basement had been flooded a number of times and some of the windows were missing which left the books exposed to the elements. Honeyman enthusiastically began to catalogue the collection in 1990, however, he was unsupported and ill-equipped for the task. He did what he could and worked away regularly during the last two years of his studies at the Academy.

The more I looked the more interesting it became as the books were original printings and the composers were names all guitarists knew and still played. There is an empathy holding a book another guitarist who lived 150 years before you were born held and read from. It's like looking through his eyes. You can't help feeling some responsibility for his legacy.<sup>10</sup>

### **Michael McCartney**

In 1992 Hudleston found a new champion in Michael McCartney. Having completed his undergraduate studies in his native USA, McCartney was contacting conservatories and music schools across Europe looking for unpublished manuscripts that could be a subject for a masters or doctorate project.<sup>11</sup>

McCartney must have been astounded to find the vast resource that is the Hudleston collection, which at this time was completely uncatalogued and unknown to anybody

---

<sup>9</sup> RIAM Govenors' Minutes.

<sup>10</sup> Simon Honeyman, 'letter to Redmond O'Toole', 14 February 2018, see appendix C.

<sup>11</sup> McCartney completed his undergraduate studies at the State University of New York at Purchase in 1988 and subsequently continued on a Masters program there for one year. He then transferred to Queens University, Belfast and upgraded his project to a PhD which he pursued from 1992-1994. His project remains uncompleted at present

save for a handful of people connected to the RIAM itself. The collection comprises almost two thousand works divided into over one thousand prints and over eight hundred manuscripts. The prints contain all of the well-known composers of the nineteenth-century guitar repertoire with music by Fernando Sor 1778-1839, Mauro Giuliani (1781-1829), Matteo Carcassi (1792-1853), Luigi Legnani (1790-1877), Ferdinand Carulli (1770-1841) and other lesser known figures such as John Abraham Nüske (N.D.) and A.T. Huerta (1800-1874) amongst others. In addition the collection contains many of the main methods and treatises of the time and music and theory books for other instruments. Within the manuscripts are arrangements and compositions by Hudleston and his intriguing treatise on harmonic sounds, the main subject of this dissertation. It is no hyperbole to suggest that it is the largest collection of nineteenth-century guitar music in the world.<sup>12</sup> What is equally fascinating and unique in this area is that Hudleston's entire collection was accumulated during the nineteenth century and all of the composers were contemporaries of the collector himself.

### **Hudleston the Collector**

It is unusual for such a large volume of music to be collected by an individual but the reasoning behind it is quite practical. Hudleston was forced to make an independent library for himself due to his geographical location. He spent the majority of his adult life living in Madras, India. He was born into a family of high ranking civil servants and he was the second generation to work in India after his father had established himself as an important figure in the history of colonial India. Like his father before him, Hudleston held an important position in the East India Company and could have

---

<sup>12</sup> The Olcott-Bickford at California State University, a comparable collection with over 7,000 scores does not have as many nineteenth-century scores. The Karl Scheit collection at the Vienna Musichochschule is also smaller, although contains numerous copies by Hudleston.

easily afforded the cost of purchasing and shipping the printed music from England and Europe. In addition his privileged position afforded him plenty of free time to pursue his passion for the guitar. He spent thirty-nine years living in India and nearly all of the music was shipped to Madras from England or mainland Europe mostly via Burkin Young & Co. in Calcutta.<sup>13</sup> Upon retirement he returned to England, firstly to Chichester then Cheltenham before settling in Killiney, Dublin, Ireland where he remained for the rest of his life.<sup>14</sup>

### **The Harmonic Treatise**

Hudleston's collection contains many excellent condition prints of music found commonly in the repertoire today, but also virtually unknown works by Nüske, Heurte and others. It represents an invaluable source for guitarists today. The entire print collection has been digitised and is available to download directly from the Royal Irish Academy of Music's library website.<sup>15</sup>

Within the manuscript collection there is an insight into nineteenth-century guitar technique that, prior to this dissertation, has never been examined in detail and gives an in-depth source for specific techniques for the guitar in the mid to late nineteenth-century. It was sometime in the 1830s that Hudleston decided to undertake a complete investigation and appraisal of on-string harmonics for the

---

<sup>13</sup> First page stamps on many of the prints indicate Burkin Young and Co. in Calcutta. R. Cocks and Co. also occur frequently in addition to numerous other music shops or publishing houses. McCartney in an article on Phillippe Verini has noted that a number of pieces were acquired from Georgio Verini, his son. Bearing Hudleston's inscription: 'JA Hudleston from Signor G Verini, 4th February 1856'. These include *Fantasia* by Eulenstein, *Rondongino brillante* by Giuliani, *Favorite Romance on a Scotch Air* by Huerta, *Andante* and *Allegretto* by Angiolina Huerta (née Panormo) inscribed to Verini, *Variazioni* by Moretti, Sor's opp. 11, 37, 42 and Verini's *So che un sogno e la speranza*.

<sup>14</sup> See chapter 1.7, 21.

<sup>15</sup> The digitised portion of the Hudleston Collection is available at <<https://library.riam.ie/uhtbin/cgiisirsi/?ps=HFDhPC0Ioj/x/X/60/80/X/BLASTOFF>>.

guitar.<sup>16</sup> By doing so he demonstrated not only how he and his contemporaries dealt with this special technique but also gave information about the approach to the instrument in general. The timing of Hudleston's writing seems ideal considering that the first instance of harmonics in a piece of music for guitar is attributed to Fernando Sor in his *Fantasia villageoise*, Op. 52 in 1832.<sup>17</sup> Much of Hudleston's instruction will be surprising to the modern guitarist and his treatise has the potential to cause a re-appraisal of this aspect of nineteenth-century guitar technique considering today's prevalence of the artificial harmonic which utilises the right hand to actuate the harmonic as well as pluck the string.<sup>18</sup> The underlying issue is whether Hudleston's ideas and instruction were the individual approach of a musician isolated from Europe by thousands of miles or the *mode d'emploi* of the nineteenth-century guitarist. Hudleston does not at any stage strictly enforce his ideas on his reader, only sets out to examine every aspect of harmonic technique. He leaves no stone unturned in his treatise and neither before nor since has there been such an in-depth review of this unusual technique. Harmonic techniques continue to see developments in the present day with new techniques ranging from 'pick squeals' to 'tapped harmonics' continuing to emerge and have been the subject of much research more recently in the work of John Schneider and Martin Vischnick, amongst others.<sup>19</sup>

---

<sup>16</sup> On-string harmonics are described as natural harmonics created by touching certain nodes on a given string and plucked with the right hand.

<sup>17</sup> Brian Jeffery, *Fernando Sor: Composer and Guitarist* (London: Tecla, 1994), 164.

<sup>18</sup> See chapter 4.2, 115-120.

<sup>19</sup> See chapter 2.1, 26-33. 'Tapped harmonics' are a system where the right hand fingertips or thumb creates a harmonic by tapping a string on the appropriate fret and allowing the digit to remain in position to create a harmonic. A 'pick squeal' is an ultra-high harmonic created by using the flesh of the right hand thumb in collaboration with a plectrum to create an artificial harmonic, usually on electric guitar. Other harmonic techniques continue to emerge with variations on these techniques in arpeggiations or other combinations. John Schneider, *The Contemporary Guitar*, (Maryland: Rowman and Littlefield 2015). Martin Vishnick, *A Survey of Extended Techniques on the Classical Six-String Guitar with Appended Studies in New Morphological Notation*, (PhD dissertation, City University, London, 2014).

The nineteenth century saw the transition between the initial lute-based techniques to an individual and specific guitar technique. What the term ‘guitar’ referred to exactly had been in a state of flux since the Renaissance. As with so many inventions and machines, the instrument only really developed a set form during the Age of Enlightenment. The six-stringed, single course guitar became standard in the nineteenth-century. Prior to this the baroque guitar and lute were, in the first instance, accompaniment instruments, with solo music making up only a small part of the repertoire. Stuart Button believes that the early romantic guitars were less suited to melody-based music due to their double strung nature and the adoption of single strings greatly improved this.<sup>20</sup> It was in the early-nineteenth century that the new guitar emerged, continuing a role as an accompaniment instrument, mostly for the voice, but also developing a new repertoire of solo music. This new repertoire was underpinned by large-scale works: fantasies, overtures, sonatas and the most popular of all, theme and variations. All of the guitarist-composers included these large-scale works in their oeuvre, epitomised by the eternally popular *Grand Solo* of Fernando Sor or Mauro Giuliani's *Grand Overture*.<sup>21</sup>

## **Literature Review**

There has been very little written about Josiah Hudleston aside from McCartney's work which is mainly unpublished. There can be no question that McCartney's work has been an invaluable resource for this dissertation. His short articles labelled ‘Preface’, ‘Introduction’ and ‘Background’ are only available at the Royal Irish Academy of Music's library. These are re-workings of mostly the same material

---

<sup>20</sup> Stuart Button, *The Guitar in England 1800-1924* (London: Garland Publishing, Inc.1989), 192, 193.

<sup>21</sup> Frederick Noad, *The Classical Guitar* (New York, Amsco, 2001).

which was presumably intended to be part of McCartney's unfinished PhD. A transcript from a lecture that McCartney gave at Queens University Belfast is also a valuable source of information as well as the various articles that were available on McCartney's website [www.hudleston-music.co.uk](http://www.hudleston-music.co.uk) (this website has unfortunately been removed from the internet at the time of writing). Philip Shields, Librarian at RIAM has written an article on the special collections at RIAM in *To Talent Alone: The Royal Irish Academy of Music, 1848–1998* and Axel Klein wrote an entry on Hudleston in the *The Encyclopaedia of Music in Ireland* which is based entirely on the research of McCartney.<sup>22</sup> Outside of these essential contributions to the biography of Hudleston there is only a handful of sources which are based almost completely on the aforementioned articles. These include three articles in *Classical Guitar Magazine* which are mainly concerned with Giulio Regondi and his Ten Etudes (which are dedicated to Hudleston), a Wikipedia entry authored by Axel Klein and a handful of short articles in the Indian newspaper *The Hindu* and its related online variations.<sup>23</sup> Hudleston is noticeably absent from the usual sources such as the *New Grove Dictionary of Music and Musicians*, Tyler and Sparks *The Guitar and its Music* or the biographies of Fernando Sor and Mauro Giuliani by Brian Jeffery and Thomas Heck respectively.<sup>24</sup> The PhD dissertation by Thomas Lawrence 'The

---

<sup>22</sup> Philip Shields, 'The Special Collections of the Academy Library', in Richard Pine & Charles Acton (ed.), *To Talent Alone: The Royal Irish Academy of Music, 1848–1998* (Dublin: Gill and Macmillan 1998), 483–493.

Axel Klein, 'Hudleston, Josiah' in Harry White and Barra Boydell (eds), *The Encyclopaedia of Music in Ireland*, Vol.1 (Dublin: UCD Press, 2013) 502.

<sup>23</sup> Klein, Axel, 'Josiah Andrew Hudleston'

<[https://en.wikipedia.org/wiki/Josiah\\_Andrew\\_Hudleston](https://en.wikipedia.org/wiki/Josiah_Andrew_Hudleston)> [accessed 1 Nov 2018].

Mutiah, Sabbiah, 'The Guitar Playing Collector', *The Hindu*, 21 May, 2007, updated 18 July, 2011 <<https://www.thehindu.com/todays-paper/tp-features/tp-metroplus/the-guitarplaying-collector/article2245530.ece>> [accessed 1 May 2019]

Mutiah, Sabbiah, 'Musical life in early Madras', *The Hindu*, 5 November, 2012.

Hackl, Stefan, 'Giulio Regondi: A New Source of Music, J.A. Hudleston's Manuscript for Madame Pratten, Part 1, Classical Guitar, Vol. 27, No. 1 (London, Ashley Mark, 2008) 22–27.

<sup>24</sup> Brian Jeffery, *Fernando Sor: Composer and Guitarist* (London: Tecla Editions, 1994).  
James Tyler and Paul Sparks, *The Guitar and its Music: from the Renaissance to the Classical Era* (Oxford: Oxford University Press, 2002).



History of the Guitar in Ireland 1760-1866' includes no mention of Hudleston despite a completion date of almost ten years after the re-discovery of Hudleston's collection by Simon Honeyman and subsequent research by McCartney.<sup>25</sup> It is surprising to see that there is no mention of Hudleston in relation to Regondi, who features heavily in Lawrence's research. Nonetheless it has proved a valuable source for information on concerts in Ireland during Hudleston's retirement years between 1856 and 1865.

The most recent research into Hudleston's collection was undertaken by Alan Grundy, former guitar teacher at Dublin Institute of Technology. His Masters thesis 'Rediscovered Nineteenth-Century Guitar Compositions Found in the Archives of the Royal Irish Academy of Music, Dublin' was submitted in 2002 and was followed by a recording which was released privately in 1999 to commemorate Hudleston's bicentenary.<sup>26</sup> Grundy's thesis is mainly a critical commentary on his editions of works by other composers from the collection and contains no works by Hudleston himself and presents no new information on Hudleston beyond McCartney's research.

To date all of the sources relating to Hudleston have stemmed from Michael McCartney's initial PhD research, principally 'Introduction' and 'Preface' from his unfinished catalogue of the collection at RIAM. The paper he presented at Queens University in 1997 was an amalgamation of the two aforementioned documents with no new information. These documents present facts gleaned from information in the

---

<sup>24</sup> Thomas Heck, *Mauro Giuliani: Virtuoso Guitarist and Composer* (Los Angeles: Editions Orphée, 1995).

<sup>25</sup> Thomas Lawrence, 'The History of Guitar in Ireland, 1760-1866' (PhD dissertation, National University of Ireland, 1999).

<sup>26</sup> Alan Grundy, 'Rediscovered Nineteenth Century Guitar Works Found in the archives of the Royal Irish Academy of Music', (Mmus dissertation, National University of Ireland, 1992).

opening letter to the treatise as well as valuable research that McCartney carried out into Hudleston's career, education and birth records. In addition he examined musical activity in Madras during Hudleston's time there. Subsequent articles from other authors have relied entirely on McCartney's research for any information they presented on Hudleston's life.

## Chapter One

### An Englishman in Madras

#### 1.1 Family and Birth

Josiah Andrew Hudleston was born on 22 February 1799 in Bray, Berkshire, England and died in Dublin in 1865. He is buried at Monkstown cemetery Dublin.<sup>1</sup> He married Susan Eleanor Wallace on 4 February 1826 who became mother to Josiah junior who was born in that same year and would remain their only child. Susan was the sister of Josiah's sister-in-law Annette Clara Wallace who was married to his older brother William in 1820. On 15 October 1837 Susan Wallace passed away. One year later Hudleston married Ellen Langley on 28 October 1838 and had a further four children, William Victor, Emily Ellen De Jorius, Helena and John.<sup>2</sup> Ellen Langley was born in Parmonstown, County Offaly, which might explain Hudleston's retirement to Dublin.<sup>3</sup>

Hudleston was the fourth son of John and Honoria Hudleston. He was named after his Irish grandfather Josiah Marshall of Donegal.<sup>4</sup> His father, John, was born in Wells, Somerset, England in 1749 and was buried in Bath, Somerset in 1835.<sup>5</sup> John Hudleston was the first of his family to move to India as a member of the East India Trading Company's civil service in 1766.<sup>6</sup> By 1782 he was Military Secretary to the Madras government and became a Madras council member in 1790. During his time

---

<sup>1</sup> Axel Klein, 'Josiah Andrew Hudleston' <[https://en.wikipedia.org/wiki/Josiah\\_Andrew\\_Hudleston](https://en.wikipedia.org/wiki/Josiah_Andrew_Hudleston)> [accessed 1 Nov 2018].

<sup>2</sup> Robert David Hyde, 'Joan Hyde's Scrapbook' <<http://www.delahyde.com/joan/index.html?http://www.delahyde.com/joan/pagesj/intro.html>> [accessed 1 May 2019].

<sup>3</sup> See chapter 1.7, 2. Mary Holding, 'Anna Maria Antionette Isabel de Jourins Langley aka Ellen' <<https://www.wikitree.com/wiki/Langley-3124>> [accessed 16 Mar 2020].

<sup>4</sup> Lucy Lavelle, 'Josiah Andrew Hudleston (1799 – 1865)' <<https://www.wikitree.com/wiki/Hudleston-60>> [accessed 14 May 2019].

<sup>5</sup> Marc Whitaker, 'John Hudleston (1749 - 1835)' <<https://www.wikitree.com/wiki/Hudleston-54>> [accessed 4 May 2019].

<sup>6</sup> Robert Hyde, 'Joan Hyde's Scrapbook'.

on the Madras council he was involved in the deliberations of the first, second and third Mysore wars.<sup>7</sup> He was instrumental in vital treaty negotiations with Hyder Ali and later with Tippoo Sultan and was a signatory of the peace treaty with the latter in Mangalore in March 1784. In the 1790s he left India and returned to England. He was an East India company director from the time of Josiah's birth until 1826 and he was a Member of Parliament, representing Bridgewater, for two years from 1804 to 1806. John Hudleston received a building grant in 1784 for a site on the east side of the Adyar river and built an English style 'Garden House' on a twenty-seven acre plot that would remain the home of three generations of Hudlestons.<sup>8</sup>

Josiah's mother Honoria Marshall was born c1765 in County Donegal, Ireland. She died in 1807 when Josiah was just eight years old. She had married John Hudleston in 1788 in Doveridge, Derby, England.<sup>9</sup>

Two of Josiah's brothers John (1789-1823) and William (1793-1855), were also civil servants for the East India Company and based in India. His other two brothers, Frederick (1794-1865) and Robert (1801-1877), were also involved in international trade, but in China. In addition to his four brothers he also had four sisters Mary, Honoria, Helena and Charlotte. Both Helena and Charlotte died in 1820 whilst still in their teens.<sup>10</sup>

Josiah Hudleston was married to Susan Eleanor Wallace in Bombay on 4 February

---

<sup>7</sup> The Mysore Wars were a total of four conflicts between the British and the inhabitants of Mysore (1767–1769; 1780–1784; 1790–1792 and 1799).

<sup>8</sup> V. Narayan Swami, 'One Touch of Adyar Changes Us Forever: Brodie's Castle from Hudleston's Garden' <<http://gibberandsqueak.blogspot.com/2008/10/one-touch-of-adyar-changes-us-for-ever.html>> [accessed 1 May 2019].

<sup>9</sup> Whitaker, 'John Hudleston'.

<sup>10</sup> Lavelle, 'Josiah Andrew Hudleston'.

1826 at St George's Church. Susan Eleanor was the eldest daughter of John Wallace, a member of the Board of Revenue at Madras. Susan and Josiah's only child, Josiah Junior, became a colonel in the Madras Staff Corps and was the last of the Hudleston's to reside at 'Hudlestone Garden' [sic] which he sold upon his retirement in the 1870s to the Madras Theological Society. The building remains as their headquarters today.<sup>11</sup> He died in 1892.<sup>12</sup>

Josiah was grandfather to Joan de le Hyde (nee Hudleston). Her son David Hyde keeps a website and has contributed greatly to the genealogy of the Hudlestons.<sup>13</sup>

## **1.2 Education**

Josiah and all of his brothers were educated at Haileybury school in Hertford, England. The school was run by the East India Company and 'the course of study was classical with additional study of subjects related to eastern cultures, including the native languages'.<sup>14</sup>

Josiah applied to the school in 1815 and was accepted. According to Michael McCartney, Hudleston 'studied classical and general literature, natural philosophy, law, history, mathematics, political economy and a rudimentary study of oriental languages ... and Hudleston apparently learned Persian'.<sup>15</sup> Hudleston completed his studies in early 1817 and set off for India immediately.

---

<sup>11</sup> Sabbiah Mutiah, 'The Guitar Playing Collector', *The Hindu*, 21 May, 2007, updated 18 July, 2011 <<https://www.thehindu.com/todays-paper/tp-features/tp-metroplus/the-guitarplaying-collector/article2245530.ece>> [accessed 1 May 2019].

<sup>12</sup> Swami, 'One Touch of Adyar Changes Us Forever'.

<sup>13</sup> Hyde, 'Joan Hyde's Scrapbook'.

<sup>14</sup> Michael McCartney, 'Introduction', for Hudleston Collection catalogue (unpublished c.1995), 1.

<sup>15</sup> McCartney, 'The Early Years' <<http://www.hudleston.com>> [accessed 5 September 2016].

### 1.3 The Journey to India

Based on Hudleston's comments in his letter to 'C.G. Ottley' (Coghill Glendower Ottley of the Madras army. 1885-1889) which precedes the harmonic treatise's original manuscript, it can be ascertained that he began his study of the guitar sometime in 1816.<sup>16</sup> Michael McCartney suggests that this may have been a response to the advice of J. H. Stocqueler in his *Hand-Book of India*. The book encouraged those making the journey to India to take 'fowling pieces, rifles, fishing tackle, colour boxes, musical instruments, telescopes, cards, chess and backgammon boards'. The advice is given with regard to the lengthy six-month voyage from England to India that Hudleston was about to undertake. He arrived in India on 25 June 1817 and remained there for thirty-nine years. There is currently no evidence that he visited England at any stage during that period.

McCartney also makes some possible connections between Phillippe Verini and the Hudleston family that may have sparked Hudleston's interest in the guitar. He also suggests that Sor's English debut played a part in Hudleston's attraction to the instrument.<sup>17</sup> Although there is no evidence to support Hudleston's presence at that or any other concert of Sor, the presence of Sor, Verini and others shows the vogue of the guitar in London at that time and, as McCartney suggests having any kind of activity to occupy oneself on that difficult journey would have been a good idea.<sup>18</sup>

'Whatever the case may have been, Hudleston would have been happy to have a

---

<sup>16</sup> See appendix A. 125. Thomas Lawrence Behan, 'Bulletins and Other State Intelligence, Part 1, Compiled and arranged from the official documents published in the London Gazette., 1855' (The University of Michigan, 2007) 819. Ottley is listed as a lieutenant colonel in the third Madras European Regiment.

<sup>17</sup> Michael McCartney, 'The case of the mistaken name: P. Verini', <<http://hudleston-music.co.uk/articles/verini.shtml>> [accessed 5 September 2016].

<sup>18</sup> McCartney, 'The Early Years'. Sor's English debut occurred on 20 April 1816. An advertisement in the *Morning Post* stated that 'Mr Sor, the most celebrated performer in Europe on the Spanish guitar, and who is just arrived in England, Will, in the course of the evening, execute a fantasia on that instrument'.

guitar with him during the voyage to India simply to have something to do, during his time aboard the ship'.<sup>19</sup>

#### **1.4 Time in India**

Hudleston's first job at the East India Company upon his arrival in 1817 was that of a 'writer'. The position of writer is described in *India Britannica* as follows, 'a writer was nothing more than a clerk, whose days were spent wearily on a high wooden stool scratching indeterminable entries into a ledger with a quill pen ...'<sup>20</sup> This was considered a somewhat tedious post concerned with recording entries and general stocktaking. This note-taking and recording ethic stayed with Hudleston throughout his life. In his collection we find dates of composition and numerous margin notes. Unfortunately the shorthand and scrawling fashion of this note taking also remained which makes Hudleston's handwriting, for the most part, difficult to read. He admits his shortcomings in terms of handwriting in his letter to Ottley. The reference is extremely difficult to decipher but Hudleston might be referring to the copyist as 'a poor East Indian'.<sup>21</sup>

In 1820 Hudleston was appointed second assistant to the collector and magistrate of Tinnevely. This was an unusually high promotion from the position of a writer that may have been aided by his father's position in the company. His career continued with regular promotions: in 1824 he became head assistant to the registrar of Sudder and Foujdarry Adawlut and then acting deputy registrar of the Sudder court in 1826, the main court of appeals in Madras. He moved on to become the deputy collector of

---

<sup>19</sup> McCartney, 'The Early Years'.

<sup>20</sup> Geoffrey Moorehouse, *India Britannica: A Vivid Introduction to the History of British India* (Chicago, Academy Press, 2000).

<sup>21</sup> See appendix B, 147. Josiah Hudleston, 'A Treatise of Harmonic Sounds', undated manuscript of 178 pages, Royal Irish Academy of Music, H.MS.III. (unpublished, c.1840).

Madras in 1828 before becoming the superintendent of stationary in 1831. In 1836 he was acting and deputy collector of Madras before assuming his final post before retirement as chief collector of Madras. He retired in 1855.<sup>22</sup>

### **1.5 Hudleston the Composer**

The size of Hudleston's collection can be attributed in many ways to his geographical location and the difficulties that it incurred. There was no real possibility of borrowing music from other guitarists or musicians or at least such opportunities were rare in Madras.

There were orchestras and choral societies in Calcutta performing the works of Handel and Corelli, and Hudleston himself was a member of the 'Society of Amateurs'.<sup>23</sup> Tastes in Madras would have been naturally behind the mainstream in Britain and Europe. Despite this, Hudleston managed to purchase new works quickly after their publication. He may have had arrangements with various music shops to send him the newest guitar publications. He was certainly familiar with all of the major figures from the period and continued to stay up to date with his collection.

There was a demand in India for printed music and instruments. There is evidence of imported pianos by Broadwood, Stodart and others and by the 1840s there were even guitars built by London-based Italian luthier Louis Panormo that were specifically designed to deal with the tropical climate.<sup>24</sup> McCartney quotes two advertisements

---

<sup>22</sup> See appendix E, 227.

<sup>23</sup> McCartney, 'Musical Life in Madras', <[http://www.hudleston-music.co.uk/bios/jah\\_madras.shtml](http://www.hudleston-music.co.uk/bios/jah_madras.shtml)>[accessed 5 September 2016].

<sup>24</sup> James Westbrook, 'Louis Panormo: The only Maker of Guitars in the Spanish style', *Early Music*, Vol. 41, No. 4 (2013), 571-584.



from the *Madras Spectator*:

Saturday, August 30, 1845 J. EASTMURE Begs to intimate that he has received by the late arrivals ... an invoice of Panormo guitars, manufactured expressly for this climate.

Saturday, January 25, 1846 J. EASTMURE has for Sale Panormo and Wrede Guitars, the former priced 100 Rupees, the latter 50 each .<sup>25</sup>

The only information currently available in regard to how Hudleston began to compose and arrange music is contained within his letter to Captain Ottley that precedes the harmonic treatise in the original bound copy. In the letter he claims that the organist and musical director of St George's Cathedral in Madras, Frederic Zscherpel, encouraged him to write a complete method for the guitar. Hudleston began this project, but never completed it. Instead he opted to write an in-depth treatise on harmonic.<sup>26</sup>

It was during his final position as Chief Collector that Hudleston was at his most prolific. He was at this stage the chief administrative official of his district, perhaps giving him an abundance of free time to pursue his hobby, as McCartney suggests 'How much work the collector, or any high official in the company had to do is unclear, but the fact that Hudleston's activity as a composer and arranger reached its peak during these very years leads one to believe that his professional duties were not very demanding'.<sup>27</sup>

The working conditions described below would certainly seem to support this idea.

The hours of work in all offices appears to have been between eight and eleven in the morning

---

<sup>25</sup> McCartney, 'Musical Life in Madras'.

<sup>26</sup> See appendix A and B, 147.

<sup>27</sup> Michael McCartney, 'The Hudleston Years in India' <[http://www.hudlestonmusic.co.uk/bios/jah\\_india.shtml](http://www.hudlestonmusic.co.uk/bios/jah_india.shtml)>[accessed 5 September 2016].

and two to four in the afternoon, and that the principal meal was taken before midday and followed by a siesta. This will interest those who desire to have a change of hours of work suitable to tropical climate: in hot sun between eleven and two, employees in services are expected to rest and not strain themselves<sup>28</sup>

## 1.6 Retirement, Cheltenham

After Hudleston retired in May 1855 he remained for one year in Madras. The following March he returned to England for the first time in thirty-nine years and by October 1856 he had settled at his brother's residence in Cheltenham. Although he only spent one year in Cheltenham it was an eventful one.<sup>29</sup>

Cheltenham was a popular location for retired employees of the East India Company. It was affectionately known as the 'The town of Colonels and Curries'.<sup>30</sup> Concerts were occurring regularly in Cheltenham and within the first month of Hudleston's relocation there was a concert by Giulio Regondi (November 1856). Soon afterwards Hudleston began to copy music from his collection for Regondi and in 1857 Regondi dedicated his Ten Etudes to Hudleston. Another dedication from this period comes from Carl Eulenstein with his *Le Retour de l'Allemagne* as well as Don Jose Ciebra's *Air with Variations*. McCartney also connects Hudleston to A.T. Huerta and Filippo Verini (P. Verini) and indeed there is a number of signed works by Huerta in the collection, although these could perhaps have been pre signed before sale as was commonplace.<sup>31</sup>

---

<sup>28</sup> W. S. Krishnaswami Nayudu, *Old Madras* (Madras, Solden, 1965).

<sup>29</sup> Michael McCartney, 'The Return to England'  
<[http://www.hudleston-music.co.uk/bios/jah\\_return.shtml](http://www.hudleston-music.co.uk/bios/jah_return.shtml)>[accessed 5 September 2016].

<sup>30</sup> Ibid.

<sup>31</sup> Ibid.

It is certain that Hudleston was working with Madame Sydney Pratten, the English guitar publisher and pedagogue. She published some of his compositions in the 1850s and 1860s and there were a number of copies made for her by Hudleston from his collection. Perhaps most noteworthy are Regondi's Ten Etudes that were discovered in the Karl Scheit collection in Vienna. Eight of the ten etudes are found in their earliest known source at the Scheit collection as well as another previously unknown work, discovered by Matanya Ophee *Air Varie de l'Opera de Bellini I capulleti e i Montecchi* and subsequently published by him. It is also interesting to note that the piece was composed in 1845 for a 'Miss Donovan of Dublin' whom Ophee claims was a student of Regondi. The *Air Varie* was included in Regondi's concert programs of the 1850s and perhaps made their way into his Dublin concerts.<sup>32</sup> Regondi made numerous tours in Ireland but only the last two visits in 1859 and 1861 correspond to Hudleston's time in Dublin.<sup>33</sup>

The copy of *Ten Etudes* from Hudleston are found in a bound book which matches exactly the style of the bound volumes in the Hudleston collection at RIAM.

McCartney writes 'Although he indicated that he copied many pieces for Regondi and we now know that Regondi dedicated his ten studies to him, the collection inexplicitly contains no work by Regondi himself'.<sup>34</sup>

---

<sup>32</sup> Matanya Ophee, Introduction to Regondi, Giulio, 'Air varié de l'opera de Bellini, I Capuleti e i Montecchi' Orphee Editions <<http://editionsorphee.com/solos/reg-bellini.html>> [accessed 1 May 2019].

<sup>33</sup> Thomas Lawrence, 'The Guitar in Ireland'. Lawrence documents a total of seven visits by Regondi to Ireland in 1842, 1845, 1850, 1852, 1854, 1859 and 1861. The 1859 visit has just one recorded appearance at the Concert Rooms, Brunswick Street, Dublin and during 1861 he returned to Brunswick Street and also performed at the Ancient [Antient] Concert Rooms in Dublin.

<sup>34</sup> McCartney, 'The Return to England'.

Figure 1.

Cover of Regondi's *Ten Etudes* from the Karl Scheit Collection, University of Vienna. 'Copied for Mrs R.S. Pratten by J.A. Hudleston Esquire'

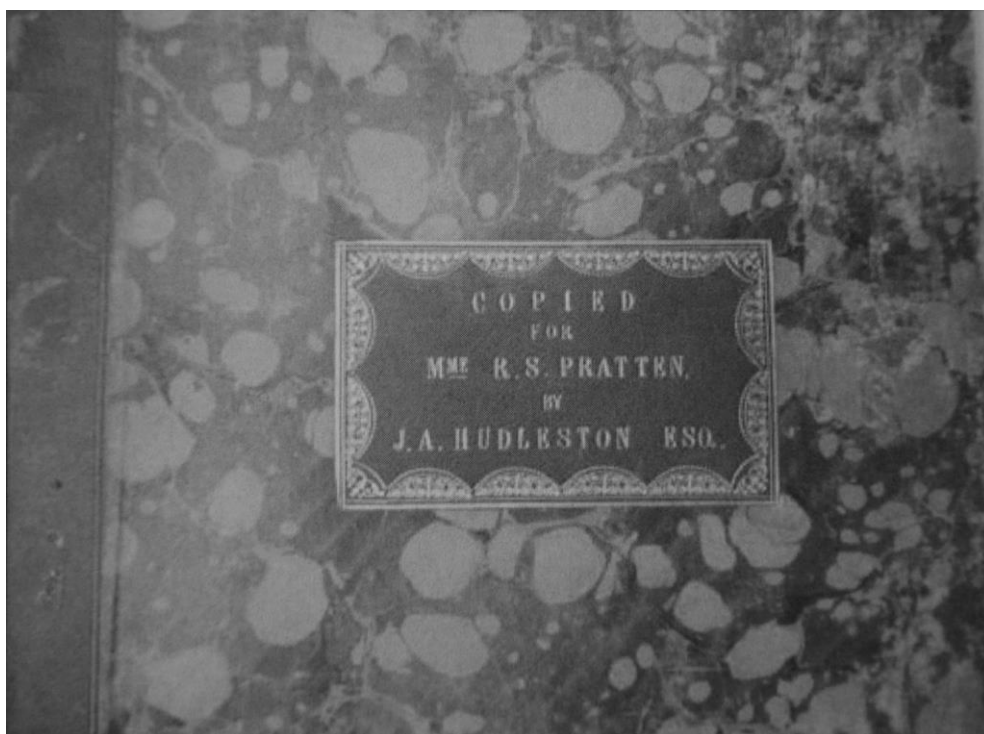
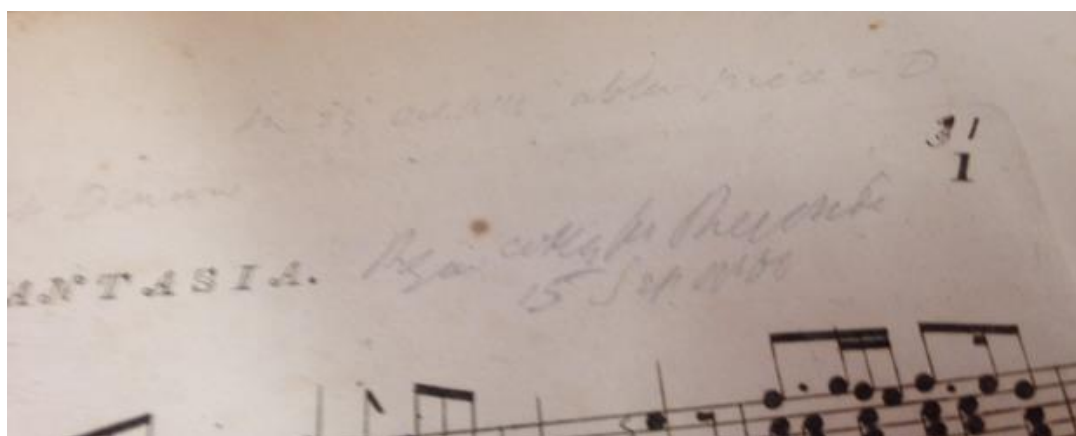


Figure 2.

Hudleston's notes on *Fantasia* by Nüske from the Hudleston Collection at RIAM



In figure 2, we see Hudleston noting the start date of a copy for Regondi, in this case a *Fantasia* by Nüske.

However, some excerpts of Regondi's work are found in the harmonic treatise. So it seems likely that Hudleston did own copies of Regondi's music but these works must have been either given away or lost. Several of Nüske's works were among those copied for Pratten and Regondi – two of the Fantasias, the Variations, and the Three Waltzes.<sup>35</sup>

### **1.7 Retirement, Dublin**

After just one year in Cheltenham Hudleston relocated to Merton Lodge, Killiney, Dublin.<sup>36</sup> He remained there until his death on 19 August 1865. He continued composing and arranging until the end of his life. His grave was discovered by Anthony Coulthard at Carrickbrennan Cemetery in Monkstown, Dublin.<sup>37</sup>

There is no evidence of Hudleston performing, not even at an amateur level, at any stage during his life. But judging by his writings and in particular the harmonic treatise, it is obvious that he understood the instrument and whatever might be supposed about his proficiency as a performer, it is very clear that he could play at a high level. In addition the large volume of chamber music surely suggests that he was involved in regular music making.

Hudleston's arrangements are notable for their fidelity to the original versions, and for their uncompromising difficulty. Although he was not a professional performer (his high position in the East India Company and in society in general would have precluded public appearances), he must have been a very accomplished player, judging from the technical proficiency required to successfully perform his works. His frequent use of rapid scale passages played with the left

---

<sup>35</sup> Ibid.

<sup>36</sup> Holding, 'Anna Maria Antionette Isabel de Jourins Langley aka Ellen'. Hudleston's son, William Victor is listed in the Cheltenham College Register as 'son of Josiah Andrew Hudleston, Merton Lodge, Killiney, Dublin' c1860.

<sup>37</sup> Klein, 'Josiah Andrew Hudleston'.

hand alone, the appearance of entire passages in harmonics, and the general dexterity demanded of both hands show that his music was intended for virtuosi, and not for amateurs. As such virtuosic music, Hudleston's works deserve to be considered an important and interesting part of the guitarist's repertoire. It is hoped that this article will at last assure for him the place in the guitar's history which he undoubtedly deserves.<sup>38</sup>

## 1.8 The Collection

The Hudleston collection is enormous, consisting of over one thousand prints and eight hundred manuscripts. At the time of writing only the prints are catalogued and are available online via the RIAM library website. There is a current average of five hundred and fifty downloads per month.<sup>39</sup> It could be considered the largest collection of nineteenth-century guitar music in the world and is at least equal to any other. It is larger than the Rischel and Birkett-Smith, Boije, or Olcott-Bickford collections.<sup>40</sup>

As previously noted in the introduction to this dissertation, Hudleston's collection was initially rescued by Simon Honeyman, an undergraduate guitar student at the RIAM in the late 1980s and early 1990s.<sup>41</sup> He was encouraged by the then librarian John O'Sullivan to take a look at some neglected materials stored in a back room. Honeyman describes the conditions as 'a crypt, dark, damp, cold and dusty but when I looked around there were books of guitar music on the shelves, floor and window

---

<sup>38</sup> Michael McCartney, 'J.A. Hudleston (1799-1865) A Guitarist in Nineteenth Century India', paper presented at Queens University, Belfast, 12 March 1997  
<<http://www.delahyde.com/joan/index.html?http://www.delahyde.com/joan/pagesj/josiah.html>> [accessed 1 May 2019].

<sup>39</sup> Statistics received from Phillip Shields from RIAM Library, approximately 19,600 downloads of PDFs from the collection between 2016-2018. (This is after filtering out automated downloads from search engine bots, spiders etc.).

<sup>40</sup> See Introduction, 8.

<sup>41</sup> Simon continues his work with guitar, now as a luthier in Dublin.

sill’<sup>42</sup>.

Honeyman dates the discovery to the early 1990s. The room where the music was stored was in the basement, had been flooded a number of times and was missing a number of windows. To say that the collection had been neglected was an understatement and Simon found it impossible to gather any support from staff at the RIAM so he undertook the initial cataloguing himself. ‘It became a standing joke, twice a week after lessons I went to the land that time forgot to look at the dirty books’<sup>43</sup>.

This initial catalogue is, unfortunately, lost but Simon was kind enough to write a short letter outlining his experience for the purpose of this document.<sup>44</sup>

In 1997 Michael McCartney began to catalogue the collection as a PhD project for Queen’s University Belfast with some financial support from RIAM.<sup>45</sup> McCartney catalogued all of the prints in the collection but not the manuscripts. He set up a website, [www.hudleston.com](http://www.hudleston.com), which has been an invaluable source of information for this research. Unfortunately the website has been taken down since October 2018. Prior to this the final update of the website was 13 December 2014, at which point McCartney alluded to having more of the collection catalogued, ‘which has been substantially updated and will be available soon’ but this larger catalogue has not yet appeared at the time of writing this dissertation.

---

<sup>42</sup> See appendix C, 225.

<sup>43</sup> Ibid.

<sup>44</sup> See appendix C, 225.

<sup>45</sup> Exact details are unclear, this information came from Phillip Shields, librarian at RIAM.

## **1.9 Summary**

Hudleston's family circumstance and subsequent re-location to India created the perfect environment for him to develop his collection and to write his treatise on harmonic sounds. He was born into a privileged family that allowed him the financial security and supported his successful career path. His privileged position enabled his access to the resources necessary to reach a very high level as a musician and composer of guitar music. It also gave him the financial ability to build his impressive collection of music. Living in Madras meant that opportunities for borrowing or exchanging guitar music would have been rare or perhaps non-existent. Had he remained in England for his life there is no doubt that he would not have amassed such a collection.

In addition to the lack of physical material his geographical location may also have meant that he was entirely self-taught. He was well educated prior to leaving England, but he does not seem to have received any formal music education. His in-depth analysis of harmonics and proven study of the various method books in his collection is also a testament to a self-sufficient approach to learning. His numerous references to 'my researches', 'my discovery' etc. within the treatise also demonstrate pride in the work he had accomplished alone.

His career in the Indian Civil Service was very successful and he moved through the various ranks with a smooth progression, no doubt supported by the influence of his family's status and the links he created through marriage. Regrettably the various positions within the East India Company that afforded him the free time to pursue his



hobby may also have prevented him from giving public performances.<sup>46</sup>

Hudleston's retirement to Dublin was perhaps inspired by his Irish wife and his mother's Irish descent. The donation of his collection to the RIAM was very nearly a large mistake in terms of Hudleston's legacy considering the collection was completely neglected for over one hundred years. Guitarists and scholars who now look to this collection in the search for a better understanding of performance practice in the nineteenth century owe a debt of gratitude to the curiosity of Simon Honeyman.

---

<sup>46</sup> Mutiah, 'The Guitar Playing Collector'. Mutiah claims that Hudleston's position in the East India Company would have excluded him from giving any public performances.

## Chapter Two

### Hudleston's Research

#### 2.1 Background to Harmonics

Without a doubt the most popular form of composition for the guitar in the nineteenth century was theme and variation. For most composers this was essential material and is well represented throughout the repertoire. Small salon-style concerts in private homes or small venues demanded well-known themes or famous airs and the guitar, with its innate ability to create many different timbres, presented the perfect vehicle on which to invent witty and charming variations on a given theme more often than not finishing with a dazzling display of virtuosity.

A set of variations from the nineteenth century is usually a compendium of different techniques. Initially the theme itself is set out, followed by a number of variations with perhaps a full representation of the theme (or, at the very least, the harmonic structure of the theme) subjected to arpeggiation, division, syncopation, octave displacement, tremolo, left hand slurs, etc. The variety of invention could display the ingenuity and creativity of the composer. There are usually five or six variations followed by a minor version before embarking on a virtuosic finale. Typical examples might include Sor's *Variation's on a Theme by Mozart* Opus 9, a set of variations based on *Das Klinget so Herrlich* from *The Magic Flute* or Giuliani's treatment of the 'Harmonious Blacksmith' melody in his opus 109 *Variations on a Theme by Handel*.

It could have been in the pursuit of variety that the idea of harmonics developed, a

technique developing from an occasional accidental mis-fret to a controllable method. There does not seem to have been any instances of harmonics in the lute or even baroque guitar repertoire, perhaps considered weak or odd by the lute players. It is impossible to say how the technique originated but there is no record of any repertoire or discussion of harmonics prior to the nineteenth century in relation to the guitar.<sup>1</sup> The first inclusion of harmonics in a piece is attributed to Fernando Sor in his *Fantasia villageoise*, Op. 52 from 1832.<sup>2</sup>

Fernando Sor writes in his method that his first experience of harmonics was in Spain, perhaps from folk musicians although it is unclear exactly who he heard playing them.<sup>3</sup> Aguado attributes the invention of the artificial harmonic to François De Fossa (1775-1849).<sup>4</sup> It would seem likely that occasionally lutenists and guitarists had happened upon the phenomenon as far back as the invention of their instruments but the control of harmonics and attempts to actually play a specific phrase or melody was a mid-nineteenth century invention at least in Europe. Sor used the sonority of the harmonic to great effect in his *Six Airs Choisi de l'Opera de Mozart: Il Flauto Magicale* opus 19 by employing harmonics to emanate Papageno's magical bells, likewise Giuliani used them on occasion, for example to emanate coach in his *Las Folias D'Espagna* opus 45.

A possible catalyst for an enhanced level of control was the pursuit of new and different ways to present a theme. The harmonic presented itself as a curious, flute-

---

<sup>1</sup> In private correspondence in December February 2019 between lutenist Nigel North (Jacob's School of Music, Indiana University) to Redmond O'Toole in February 2019 he concurred that there were no instances of harmonics in the repertoire of the lute.

<sup>2</sup> Brian Jeffery, *Fernando Sor: Composer and Guitarist* (London: Tecla Editions, 1994), 161.

<sup>3</sup> Fernando Sor, *Method for the Spanish Guitar, A complete reprint of the 1832 English Translation* (London, Tecla Editions, 1995, 2003), 3.

<sup>4</sup> See Chapters 2.6 and 2.7. Dionisio Aguado, *New Guitar Method*, trans. Brian Jeffery (London: Tecla Editions, 1981), 59.

like timbre and a virtuosic technique simultaneously, embodying the style of the mid-nineteenth century guitarist-composers perfectly.

Hudleston's compositions are mostly theme and variation form and almost without exception include a variation using harmonics. To encounter sections of romantic guitar music played entirely in harmonics (outside of Hudleston's compositions) is quite rare. Hudleston wanted to enable other players to understand the harmonic and its possibilities with the command that he had developed through his own research and to this end wrote his treatise on harmonic sounds.

Having studied the guitar now for 24 years I discovered a great deal more could be effected upon it than I had any conception of when I first took it up; wishing that you might derive benefit from the result of my researches, especially in the one department of music, harmonic sounds as regards the guitar, I resolved upon writing the following little treatise on the subject – for it appeared to that the most eminent guitarists had not gone so deeply into the matter as they might have done –<sup>5</sup>

Hudleston was clearly besotted by the sound of harmonics, his references to their beauty are many within the document with multiple references to 'beautiful sounds', 'beautiful effect', 'beautiful tones', etc. There can be no doubt that he was a huge advocate of the technique and his treatise is an effort to share his enthusiasm with others.

The actual term 'harmonic' lacks clarity and perhaps in the case of the guitar it is a misplaced use of the word. It refers to the placing of a left hand finger lightly at a certain point of the string in order to set off its vibration in two directions. The

---

<sup>5</sup> Josiah Hudleston, 'A Treatise of Harmonic Sounds', undated manuscript of 178 pages, Royal Irish Academy of Music, H.MS.III. (unpublished, c.1840),1.

shorter of the two sections of vibration usually wins out with the strongest volume.

This is described rather eloquently by Fernando Sor in his *Méthode Complète pour la Guitare*.

I have heard harmonics, which in Spain are called fluty sounds. I have also heard another quality of tone different from the fluty sounds, but these were of very short continuance, and being always accompanied by the noise produced by violent action of the finger on the string which opposes its passage ... I observed that they were never produced but upon the seventh fret, on the fifth very rarely, but very frequently on the twelfth; that on the latter the tone was more pleasing, and a little longer in duration ... by reflecting on these effects I discovered the cause of them. I know that a stretched string gives me a determined sound. If I put a moveable bridge, first at half its total length, the string will produce the double octave above, and the three quarters on the other side of the bridge will give me a fourth above the original sound; again, if I place it at one third, this third part will give me the double fifth above: I deduce from this theory that the part of the string which affords me an harmonic sound, is not that which I touch with my right hand, but that which is between my left hand and the nut; that it is for this reason the sounds ascend as I shorten this distance, and, the vibrations dying away sooner on account of the diminution of the length, the more my hand approached the nut, the less pure durable were the sounds.<sup>6</sup>

Sor's discoveries are entirely accurate. Provided that one is moving from the twelfth fret in the direction of the nut then the actual pitch produced will be created by the left hand's distance from the nut (whatever fraction of the string's length that may create) and that the longer portion of the string on the bridge side of the left hand will be overcome by the faster vibrations of the shorter part.<sup>7</sup>

---

<sup>6</sup> Fernando Sor, *Method for the Spanish Guitar* (London, Tecla Editions, 1995, 2003), 35.  
Fernando Sor, *Méthode Complète pour la Guitare* (Paris: L'auteur, 1830).

<sup>7</sup> The opposite would also occur where a harmonic was created close to the bridge, the result being similar as the shorter portion of the string's vibrating length would be heard above the longer portion.

John Taylor presents a more scientific explanation of the phenomenon.

We have seen that damping with the flesh very close to one end of a string absorbs the vibrational energy only gradually, since the amplitude of the vibration is very small there. A finger placed elsewhere on a string will generally stop the vibration dead. However, there are certain points on a string where light damping with the tip of a finger produces not silence, but a new note of higher pitch. These points are found at simple fractions of the string length. Suppose the vibrating string is touched exactly at its centre. All the odd-numbered modes, including the fundamental, are quickly damped out, since they have a loop (i.e. a point of maximum amplitude) at the centre. However, the even-numbered modes, all of which have a node (i.e. a stationary point) at the centre, continue more or less unaffected. If the fundamental frequency was  $f_1$ , then the notes which remain have frequencies 2, 4, 6, 8 etc. Times  $f_1$ , or, to put it another way, 1, 2, 3, 4, etc., times  $2f_1$  – an octave higher than the original pitch. Similarly, touching the string exactly one-third of the way along (from either end) damps out all the modes except the third, sixth, ninth etc. The resulting note has a frequency of  $3f_1$ , an octave and a fifth higher than the original. Touching exactly one-quarter of the way along gives a fundamental of frequency  $4f_1$ , two octaves higher – and so on.<sup>8</sup>

Similarly John Schneider gives a detailed description of the physics involved in creating a harmonic.

Harmonics are produced by artificially introducing a node in a vibrating string, which forces the string to vibrate in one of its *modes*. Since a node divides the string into equal sections, a string vibrating in a mode of many sections has several nodes. For example, when the fifth harmonic is played, the string is divided by four nodes into five sections of equal length. Therefore, if the player creates a node at any one of these four points, the fifth harmonic will sound (a frequency five times as high as the open string).<sup>9</sup>

Harmonics have always been valued for their distant and ethereal quality, often echoing

---

<sup>8</sup> John Taylor, *Tone Production on the Classical Guitar* (Musical New Services Ltd., London 1978), 30.

<sup>9</sup> John Schneider, *The Contemporary Guitar* (Maryland: Rowman and Littlefield 2015), 107.

thematic material; but in the second half of the twentieth century they have been used as musical material in their own right. One famous example by Britten contrasts first position chords with a *pp* artificial-harmonic melody in the “Dreaming” section of his Nocturnal (8: 1-6). Too few composers have managed to integrate artificial harmonics into a polyphonic texture. Alvaro Company again proves this to be an exception with his sprightly (♩ = 112) second movement of *Las Seis Cuerdas*, which even includes arpeggiated artificial-harmonic chords.<sup>10</sup>

Schneider was the first to use the term multiphonics in relation to harmonics to describe the multiple coexisting vibrations. The topic of multiphonics has more recently been expanded upon by Rita Torres and Paulo Ferreira-Lopes with extensive detail into the vibration of the guitar body and virtual nodes, etc.

Similarly, if one touches a guitar string lightly with the LH, using harmonic pressure between two consecutive nodes on the string, the string vibrates in at least two modes that contain nodes in the same general area. The string vibrates simultaneously in both modes but with conflicting periodicity. For instance, when one plays lightly with harmonic pressure between the third and fourth fret, the string vibrates in modes 5, 6, 11, and 16 (since these modes have nodes in this area of the fretboard) thus producing a chord that contains the 5th, 6th, 11th, and 16th harmonics. The amplitude of the lower harmonics will usually be greater than that of the higher harmonics.<sup>11</sup>

Harmonics can be considered the first instance of extended techniques in terms of guitar composition and Martin Vishnick has described them as ‘Morphologies’. He describes ‘Morphologies’ as ‘an unconventionally played procedure that produces morphologies containing a spectral content alternative to the conventional pitch-

---

<sup>10</sup> Ibid, 133.

<sup>11</sup> Rita Torres and Paulo Ferreira-Lopes, *Multiphonics as a compositional element in writing for amplified guitar*, Emille, Vol.10, No.12 (2012), 57.

biased attack-sustain/decay model.<sup>12</sup> Vishnick makes a comprehensive list of twentieth and twenty-first century examples of music involving the use of harmonics as well as including a number of studies of his own composition on the technique. In his extensive research he divides harmonics into four key types and catalogues their use in the modern repertoire.

Although the majority of composers listed use natural harmonics, the discussion will concentrate mainly on the development of campanelas style through usage of harmonics (where pitches are played across the strings). In this research, campanelas style is synonymous with merged morphologies. This is reflected in the harmonics section of Figure 2, where the four types of harmonics are mentioned - natural, higher, soundhole, and multiphonic. Six composers who have developed campanelas style using harmonics in contrasting ways are cited - Brouwer, Newland, Pisati, Shende, Durville, and Kagel.

Three composers have used passages consisting of merged natural harmonics morphologies. While Leo Brouwer in *Paisaje Cubana con Campanas* (1968) and Paul Newland *Essays in Idleness* (2001) have developed extended sections, in contrast Maurizio Pisati uses short phrases in *Sette Studi* (1990) Movement 4. *Paisaje* consists of four sections. In the final section, which lasts for approximately 57 bars at  $\text{♩} = 116-120$ , the music is iterative in nature. To evoke the sound of bells pealing, seven pitches are used in repeated ... short configurations of varying lengths. As frets VII, IX, XII are employed, this passage may be played in one position.<sup>13</sup>

Harmonics may have been avoided in the early versions of the guitar and the lute due to intonation issues. Harmonics follow the natural harmonic series, not the mean temperament system. The result can be quite angular to the modern ear, especially in the area of thirds and sixths. Generally on the lute the thirds were flattened to create

---

<sup>12</sup> Martin Lawrence Vishnick, *A Survey of Extended Techniques on the Classical Six-String Guitar with Appended Studies in New Morphological Notation* (PhD dissertation, City University London, 2014), 5.

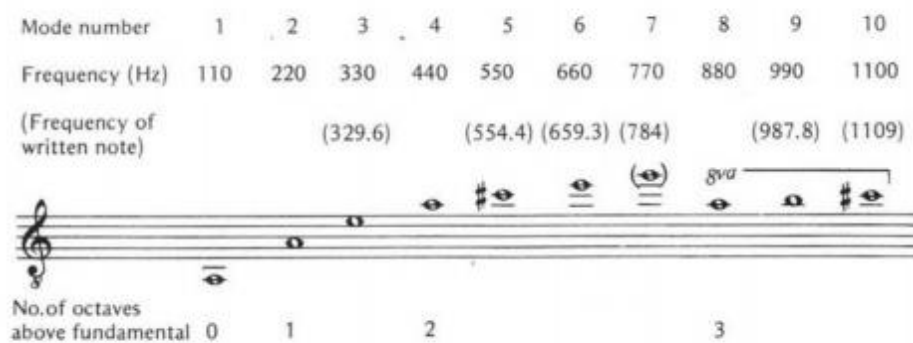
<sup>13</sup> *Ibid.*, 31-32.



a sweeter interval, with players even adjusting the gut frets to allow it. The harmonic series tends to do the very opposite and sharpens these intervals. This effect did not go without comment from Sor or Aguado, for example, both commenting on ‘out of tune’ elements that were best avoided.<sup>14</sup> It is an area of interest in terms of Hudleston’s treatise as he never mentions it as an issue. However, the differences between some fretted notes and their equivalent harmonics are quite stark and are measured by John Taylor (Figure 3).<sup>15</sup>

Figure 3

Harmonic Series Table by John Taylor



The upper numerical values in hertz are the natural harmonics that occur on the string. The first real discrepancy between the tempered note and the harmonic note happens at the C#, the fifth mode and the third of the A major chord. The difference results in roughly one-eighth of a semitone, which is quite noticeable, and the differences increase over the series to the sixth and seventh degree (E 660 Hz and G 770h). The octave itself and the following degrees of the scale follow the same

<sup>14</sup> Aguado, *New Guitar Method*, 51. ‘But not all have the same quality; those of the bass strings, especially if these are new, are clearer than those of the upper strings, where the five highest are hardly audible, including that corresponding to the seventh of the key, which is out of tune on all strings’.

<sup>15</sup> Taylor, *Tone Production on the Classical Guitar*, 20.

pattern, only at double the frequency and subsequently an octave higher. The intonation differences remain the same in terms of perception. This is the reason that the guitar harmonics of Hudleston and his contemporaries often have the character of a music box, being slightly out of tune, but not so far out of tune that the intended notes are unrecognisable.

Hudleston explains on a number of occasions throughout his treatise that it is not his intention for all of the techniques to be adhered to without exception. He simply wants to set out all of the possibilities that exist in the area of harmonics and to this end, whatever might be said about the idiomatic execution of his advanced techniques, Hudleston did create the most comprehensive appraisal of harmonic technique that has ever been undertaken for the guitar.

## **2.2 General Overview**

According to the preceding letter from Hudleston his treatise is addressed directly to Captain Coghill Glendower Ottley (1806-1889) and is more similar to a draft than a completed document.<sup>16</sup> Hudleston presents his discoveries in the area of harmonics and includes everything that he has uncovered on the subject. His writing often presents itself as a stream of consciousness, like a one-to-one conversation and he regularly repeats himself. He is very exact about every aspect of harmonic technique, which is what makes the treatise such a valuable source.

The book itself, the bound copy, contains the letter to Ottley, followed by the treatise and then the two-page appendix which was added some two years after the

---

<sup>16</sup> Lucy Lavelle, 'Coghill Glendower Ottley (abt. 1805 - 1889)' <<https://www.wikitree.com/wiki/Ottley-181>> [accessed 17 February 2020].

completion of the main treatise. The letter to Captain Ottley remains the only source of Hudleston's writing apart from the treatise itself. There is a number of other pieces of music in the bound book, which are generally unrelated, despite some including sections of harmonics which is typical of the collection. This version of the treatise and letter are a copy, so we might assume that Ottley received the original version.

The layout shows the compositional and perhaps improvisational approach of Hudleston as a musician. He is not merely concerned with performing harmonic sections that occur within the general repertoire of his contemporaries, but instructs the reader on the use of harmonics in different tonalities and textures. It is this approach that sets Hudleston's treatise apart from the method books and treatises of the time. Perhaps this is simply because many of the techniques that Hudleston describes existed only in methods and not in the general repertoire. If they were to be found in the work of his contemporaries they had not yet been taken to the extremes that are illustrated in his treatise.

The additional headings in the transcription of Hudleston's treatise have been added in order to separate the various sections. The treatise itself has very few headings and floats directly from one topic into another as can be seen in the photographs of the original manuscript (see appendix B).<sup>17</sup> This lack of headings coupled with the absence of punctuation in Hudleston's treatise can require some repeated readings to decipher his instruction. The scrawling style of the copyist's handwriting exacerbates the difficulty in reading the document.

---

<sup>17</sup> See appendix B, 147.

Hudleston explains his approach by going through the various keys that work well, rather than by techniques or positions. The various techniques are discussed as the treatise progresses, with more controversial elements such as artificial harmonics (created by the right hand) and his unusual 2<sup>nd</sup> fret ultra-high harmonics getting a section in their own right.

### **2.3 Methods in the Collection**

In addition to the many prints and manuscripts in Hudleston's collection he also had an impressive collection of methods and pedagogical books. The material is not limited to the subject of guitar and many are concerned with other instruments, harmony and music theory. He claims that Carulli, Aguado and Sor had given all the information necessary on guitar technique and that no guitarist should be without their methods. However, he has many more method books in his collection that are not referenced in his treatise and perhaps most surprisingly the collection is missing some of the methods that he claims as indispensable.<sup>18</sup>

Of course it is likely that not all of his personal collection has survived at the Royal Irish Academy of Music in Dublin and, based on various references by Hudleston in his harmonic treatise, it would seem likely that he owned or at least had access to the methods of Aguado, Sor and Carulli. The question of Aguado's influence is particularly interesting.<sup>19</sup>

This personal collection of method books and treatises provides a great insight into what may have influenced him when writing his treatise on harmonic sounds. Below

---

<sup>18</sup> See chapter 3, 57.

<sup>19</sup> See chapter 2.6, 43-48.

is a list of the guitar methods and treatises still held at the RIAM library in the collection.

**List of Methods in the Hudleston Collection:**

*A Set of 6 Divertimentos in D, comprising a New System of Natural harmonics, with an Explanatory Scale, Anthony Brown, (c1820)*

*Modulations in chords for the guitar. Op. 15, Leonard Schultz, (N.D)*

*Guitar School. Containing Two Hundred & Thirty Six Examples, including Progressive Lessons & Fourteen Songs in various Keys. Diagram of the Notes on the Fingerboard. Explanation of the various peculiarities & beauties of the Instrument ... [etc.] , Pratten, Madame R. Sidney, née Pelzer, (N.D.)*

*Number 1. Illustrations of the Spanish Guitar: The Harmonics, the Glisse, the Slur, the Tambour, and other Beats of the Fandango, Bolero, Guaracha, &c, Phipps, Thomas Bloomer (N.D.)*

*One Hundred and Fifty Exercises for Aquiring [sic.] a Facility of Performance upon the Spanish Guitar. Composed and Extracted from the Works of the best Writers for that Instrument, Pelzer, Ferdinand, (1836)*

*Instructions for the Spanish Guitar, explaining in an easy manner The Art of Playing upon that Instrument both as an accompaniment for the Voice, and as a Solo Instrument, Illustrated with Arpeggios in the Principal Keys, together, Nüske, J. A., (1832)*

*Improved Method for the Guitar, designed to facilitate the progress of the pupil and to diminish the labour of the teacher, Kirkmann, Joseph Mrs. (dated by hand, 1842)*

*Complete Tutor for the Spanish Guitar, Containing in addition to the Fingered Lessons &*

*Exercises, Spanish, Italian, & English Songs, with Several National Airs* (dedicated to her royal highness, the princess Charlotte of Wales) Rosquellas, P. – (N.D.)

*The Guitar Taught by a Simple Method, or a Treatise on the Elementary Principles of Playing that Instrument in an Agreeable Manner and in a Very Short Time*, Dionisio Aguado (c1834)

*Méthode Complète pour parvenir à pincer la Guitare, par les Moyens les plus simples et les plus faciles, Suivie de 44 Morceaux graduellement progressifs & Six Etudes ... Sixième Édition*. Op. 241 Ferdinando, Carulli (1825)

None of the books in Hudleston's collection go into such detail on harmonics as his own treatise. In fact there is no examination that delves so deeply into the technique of producing harmonics on the guitar either before or since. But Hudleston was not working in a vacuum, he had amassed an impressive collection and it might be presumed that he had some kind of interaction with professional guitarists. Hudleston does not mention all of the methods from his collection in his own treatise and it is within the books that are not referenced that we find margin notes and clear influences for his own writings. In his letter to Ottley at the very beginning of the treatise, Hudleston only mentions Carulli, Sor and Aguado. He does not discuss any of the other sources that were in his collection although he clearly studied these methods judging by a number of references and clear influences in the body of his treatise. Glaringly absent from Hudleston's collection is the Sor method, which is heavily referenced with page numbers given, this anomaly will be discussed at a later point when Sor's method is examined in more detail.<sup>20</sup>

---

<sup>20</sup> See 2.6, 43.

## 2.4 Examination of Hudleston's Method Books

*A Set of 6 Divertimentos in D* by Anthony Brown is a set of six pieces as the title suggests. At only six pages, it is short in comparison to most of the other methods and books in the collection that reference harmonics. It was 'published by the author' via Keith Prowse and Co., Cheapside, London in c1820. The pieces are preceded by a brief explanation of less than a page on how to play harmonics. It is similar to Hudleston's method in ambition with entire pieces set out in natural harmonics. Like Hudleston, Brown utilises a dropped D tuning on the bass string in order to gain the complete scale in D major. There are notes in the margin by Hudleston showing that he had gone through this edition in some detail and Brown does get a small mention in Hudleston's treatise.

Schultz's *Modulations in chords* has no information on harmonics, it is a selection of chord progressions in various keys with some arpeggiation techniques and other similar right hand patterns. It may have been some influence on Hudleston's arrangements and compositions generally but does not seem to have any direct relation to the harmonic treatise.

Catharina Pratten's *Guitar School* has the most detailed section on harmonics of any book in the collection and of any nineteenth-century method. Pratten is principally concerned with how other composers annotate their harmonics rather than setting out original material but she does give a detailed explanation on how to produce them. Pratten's book also has margin notes from Hudleston and, although barely mentioned in the treatise, it appears to have been a major influence on Hudleston's document.<sup>21</sup>

---

<sup>21</sup> See chapter 4.2, 115.

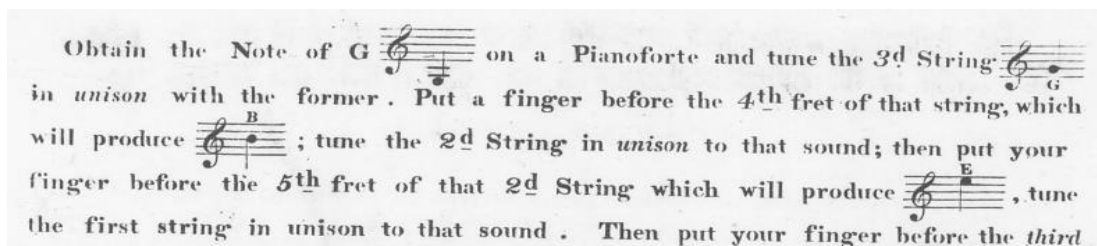
Phipp's *Illustrations on the Spanish Guitar* is the first part of a series on extended techniques for the guitar. This publication is concerned with harmonics and the glissando. It is a short book of just two pages but nevertheless was well studied by Hudleston judging by his notes on the score.

Pelzer's *one hundred and fifty exercises* ... may have been meant as an accompanying book for his daughter Catharina Pratten's *Guitar School* although it is difficult to say without any reference to that in the text. What is perhaps most interesting about this particular book in Hudleston's collection is that it is hand copied by what seems to be the same hand as his own treatise 'a poor East Indian', perhaps a clerk or some other employee of the East India Company. Although there is no instruction or explanation of harmonics there is a number of exercises and short pieces that contain harmonics and give some indications of fingerings.

*Instructions for the Spanish Guitar* by Nüske has no section on harmonics, but there is a very real influence on Hudleston in his method of typesetting, in particular his adoption of a small stave method, where he inserts small musical examples of one note or chord within the text. An example for comparison is included here (Figure 4).



Figure 4. Nüske's Typesetting



Kirkmann's *New Method for Guitar* includes only a very short section on harmonics leaving the work to the players to essentially figure it out for themselves; however, Hudleston has given a small note in the left margin of a section of harmonics.

The Rosquilla book, despite the title *Complete Method for the Spanish Guitar* has no section on harmonics and is simply a collection of songs with some varying accompaniment patterns.

## 2.5 Sor, Aguado and Carulli

It is possible to say with certainty that Hudleston had access to Aguado's 1823 method and Carulli's method when writing the treatise as they both remain in the collection today at the RIAM library in Dublin. The Carulli method is the more straightforward example of the two with relation to Hudleston's interaction with the books. Hudleston references Carulli on a number of occasions from what seems to be the version of the method still held in his collection.

Aguado's method, however, is quite different; the book went through at least four authentic versions, plus a number of spurious ones. Some of the comparisons between Hudleston's harmonic treatise and Aguado's 1843 method are striking in their similarity. This unearths a number of interesting questions. The 1828 method is

the only method by Aguado that we can be certain Hudleston had in his possession due to the fact that it remained in his collection to the present day. Whether or not Hudleston had access to Aguado's 1843 method is difficult to say with any degree of certainty. It would seem odd for such a devoted researcher as Hudleston to not have a copy. The fact that Hudleston's treatise predates the final method of Aguado is an important point.<sup>22</sup>

The Carulli method is one of the more practical instructional books from the nineteenth century, there is not excessive text and the reader is taken through the technique of guitar playing in a steady curve. The harmonics section is short at only two pages in length, with just a few short musical examples. There are some important parallels with Hudleston's approach, mainly in the area of fingering and notation which will be considered in chapter 3 in section 3.2 'Notation'.

The Aguado 1828 method is similarly brief with just the basics on harmonics and how to play them. In fact he acknowledges the brevity of his instruction in the first paragraph and admits that he is not going into much detail on the topic and only explains 'what will suffice for the intelligence of the two Waltzes which form the following lessons'.

Aguado's approach is in full agreement with Sor for the most part on the subject of harmonics, but he is more economical with his words.

---

<sup>22</sup> See chapter 2.7, 48-53.

## 2.6 The Missing Methods

There are two methods which are glaringly absent from Hudleston's collection. The first is the Sor Method, which we can ascertain with some certainty that Hudleston did own or at least have access to a copy prior to writing of his own treatise on harmonic sounds. The second absent publication is the final method of Aguado from 1843. The Aguado method which gives the most comprehensive study of guitar technique of any of the nineteenth-century publications and it is difficult to ascertain reliably if Hudleston owned a copy.

In the treatise itself Hudleston makes a number of references to Sor. Initially on the first page of the opening letter when he remarks that no guitarist should be without the instruction books of Sor, Carulli and Aguado.<sup>23</sup> The next is when he remarks on the quality of Sor's guitar in relation to harmonics.

This movement of Rossini I consider an excellent study for it brings in thirds sixths and octaves and the new harmonic sounds I discovered viz the one made a little above the 2nd fret or the octave to the harmonic made at the 4th fret of the 5th string being the C# this enables me to introduce the upper octave just as it is written for the piano forte, I find no Guitar gives the harmonics so distinctly and full as Sor's guitar.<sup>24</sup>

Whether or not Hudleston could have heard Sor's guitar in person or perhaps even played it is difficult to say. If the pair had met it would seem unlikely for Hudleston not to mention that fact at some stage in the treatise or the opening letter. There are examples of signed manuscripts by Sor in the collection and although that could indicate that Hudleston may indeed have met Sor (certainly McCartney and others

---

<sup>23</sup> See appendix A, 125.

<sup>24</sup> Hudleston, 'A Treatise of Harmonic Sounds', 29.

have suggested that this was the case) it does not prove that they did. For example, a publisher could have been selling signed prints or somebody else may have had them signed. It seems unlikely that Hudleston met Sor prior to his departure for India, although not impossible. They could also have been signed at a later stage during Hudleston's retirement years in England and Ireland or even acquired from another collector. The reference to Sor's guitar most likely indicates that Hudleston had the opportunity to play on a Panormo, Lacote or other guitars associated with Sor, but not necessarily Sor's personal instrument. Certainly the Panormo seems the most likely as there is evidence that the London based luthier was building special guitars designed for tropical climates and that some of these made their way to Madras in Hudleston's time there. Hudleston is paraphrasing Sor's discussion in his method.

For the rest, having no relation with my subject, I should not speak of it, more especially as the manner of constructing the body of the instrument is almost everywhere understood extremely well, and most Neapolitan, German and French guitars leave in this respect very little superiority to the Spanish. In the goodness of the body or box, the Neapolitan guitars in general long surpassed, in my opinion those of France and Germany; but that is not the case at present, and if I wanted an instrument, I would procure it from M. Joseph Martinez of Malaga, or from M. Lacote, a French maker, the only person who, besides his talents, has proved to me that he possesses the quality of being inflexible to reasoning. This skilful artist is very frequently obliged to satisfy those who consider the instrument otherwise than I do, and makes guitars on which it is impossible to play my music or any other that has the base and other parts of the harmony always proceeding correctly; and let a good instrument be ordered of him, leaving him at liberty to make it as he pleases, he will make one for me, and he who on trying it might find it defective, should attribute the cause to his way of employing it.

The guitars to which I have always given the preference are those of Alonzo of Madrid, Pages and Benediz of Cadiz, Joseph and Manuel Martinez of Malaga or Rada, successor and scholar of the latter and those of M. Lacote in Paris.<sup>25</sup>

---

<sup>25</sup> Sor, *Method for the Spanish Guitar*, 35.

Sor's relationship with Panormo's guitars cannot be overlooked. The fact that Panormo was based in London, which in most cases was the source of Hudleston's printed music, makes a likely connection between Panormo and Hudleston. Perhaps it was Hudleston who implored Panormo to create special guitars for tropical climates, although there is no evidence of that.

The next mention of Sor (excluding musical examples) is in relation to Sor's re-tuning of the E string to F in order to gain a full scale of harmonics. This is featured only in Sor's 1832 method and in one study on harmonics. Hudleston refers to this technique thus 'I have now given you the harmonic sounds in the three best keys for them viz G. D and A perfect scales could not be made in the ordinary way in harmonies in other keys with the exception of F in which key by tuning the 6th string to F / as Sor very frequently does when playing in this key'.<sup>26</sup>

The following reference to Sor is perhaps the most important as Hudleston gives us a page number in Sor's method, up until this point it could not be ascertained which method Hudleston had, or if he had a version at all. 'It also appears from the table above given that as there are several places where you can find the same note you can / as Sor remarks in his treatise p35 / take advantage of this circumstance to play in two or even three parts in harmonics'.<sup>27</sup>

Hudleston is referring to the following section of Sor's Method, discussing the enharmonic equivalency of the fourth and ninth frets, a point previously brought up

---

<sup>26</sup> Hudleston, 'A Treatise of Harmonic Sounds', 30.

<sup>27</sup> Ibid, 37.

by Hudleston in relation to Carulli.

It was at this period that I asked myself the following question; “Are not all the notes of the diatonic scale found in the vibration of the sonorous body? Why should I endeavour to interrogate nature, by determining on a deep string the aliquot and even the aliquant parts of its length?” - I made the trial, and found that the fourth string, for example, gave me the following notes:-<sup>28</sup>

Sor then gives a small table of the notes, including the enharmonic equivalents on the fourth string.<sup>29</sup>

Figure 5. Table from Sor’s *Method*

At the twelfth fret.....	The octave.....	D
At the ninth fret.....	The tenth or major third.....	F sharp
At the seventh.....	The double fifth.....	A
At the fifth.....	The double octave.....	D
At the fourth.....	The double major third.....	F sharp
A little below the third.....	The triple fifth.....	A
A little above the same.....	The triple minor seventh.....	C
Below the second.....	The triple octave.....	D
On the second fret.....	The triple ninth.....	E

Again Hudleston refers to Sor’s section on harmonics with accurate page numbers for the Merrick translation, this time in relation to artificial harmonics.

---

<sup>28</sup> Sor, *Method for the Spanish Guitar*, 35.

<sup>29</sup> *Ibid.*,36.

...but this method besides imposing the double task of being obliged to measure very accurately the distance for both hands, involved the inconvenience of being forced to employ the whole of the right hand to play a simple note and every harmonic you wish to produce cost to only the motion of the wrist but of the whole arm too and (as Sor observes in his treatise p34) having no point to support, it was nearly impossible for me to direct my finger with certainty exactly to the middle point of every distance , Sor afterwards observed / see page 35 / that the violin method is more promising. – <sup>30</sup>

Hudleston's page numbers again refer exactly to the point where Sor discusses the merits of the 'violin method' for producing harmonics.<sup>31</sup>

There would seem to be no doubt that Hudleston had access to the English translation of Sor's method. It also seems most likely that he had it in his possession as he wrote the treatise, it would seem unusual that he would have memorised the exact page numbers in question, although of course not impossible that he had taken earlier notes. The Sor method could have been in his possession when he arrived in Dublin. He may have lent it to another guitarist or perhaps simply was damaged during the years of neglect that the Hudleston collection endured.<sup>32</sup>

## **2.7 Aguado's 1843 Method**

The history of Aguado's method books is a far less straightforward affair than that of Sor's publications as Brian Jeffery discusses in his introduction to the 1981 English translation.

There have been several utterly different books on the market all claiming to be 'Aguado's method for guitar'. It was impossible to know which of the modern editions (if any) was

---

<sup>30</sup> Hudleston, 'A Treatise of Harmonic Sounds', 40.

<sup>31</sup> See chapter 4.7. Sor, *Method for the Spanish Guitar*, 35.

<sup>32</sup> Honeyman, letter.

authentic. The early editions themselves were confusing because of the many different versions, editions, issues and translations which were published in the author's own lifetime and have not been distinguished to date by bibliographical work.<sup>33</sup>

Jeffery divides Aguado's methods into four distinct publications. The first is *Escuela de Guitarra*, published in 1825. This book set out to present a technique guide for the 'modern guitar', the single string, six course instrument. It is a substantial book with one hundred and eleven pages and one hundred and thirty one lessons. Aguado himself gives the date of 1820 for its publication but no copy dated earlier than 1825 exists.

This first method received a reprint in 1826 when Aguado went to Paris. Firstly in Spanish but also in a French translation by François de Fossa. De Fossa had already contributed to the original 1825 version by adding an appendix on the art of modulation. De Fossa is of particular importance to the investigation of Hudleston's harmonic treatise as he has been accredited for writing the section in Aguado's 1843 method. There has been some discussion that it was in fact De Fossa who wrote the section on harmonics in Aguado's 1843 method.<sup>34</sup> This does not seem to be entirely the case when referring to Aguado's own statement on the subject. It would seem that De Fossa was involved, but only in the area of artificial harmonics.

Many notes of the chromatic scale are missing from this series, and these can be played as harmonics using a method published by my friend Mr Fossa in an article at the beginning of his composition *Ouverture du Jeune Henri*, arranged for two guitars.<sup>35</sup>

---

<sup>33</sup> Brian Jeffery, 'Preface' in Dionisio Aguado, *New Guitar Method*, ix.

<sup>34</sup> Matanya Ophee, 'François de Fossa, A French Guitarist in Mexico', 30 April 1999, <<http://www.guitarandluteissues.com/defossa/mexico.htm> [accessed 1 May 2019].

<sup>35</sup> Aguado, *New Guitar Method*, 51.



Aguado supplies a footnote on this statement. ‘I gave the explanation of this method in the Escuela which I published in 1820’.<sup>36</sup> He continues by explaining his technique for artificial harmonic.<sup>37</sup>

The second distinct method, the *Nouvelle Methode de Guitarre* op.6, was published in Paris by Aguado in 1834 which he describes as ‘in writing this work I have set out to offer to those who love the guitar the possibility of playing agreeable pieces within a short time’.

It is this ‘fast track’ method that we find in Hudleston’s collection in an English translation that Jeffreys does not list. It would seem to be a direct translation of the French edition and considering that the French edition is dated as 1834 (or shortly before) then it stands to reason that the English version could not have appeared any earlier than this. The Hudleston copy bears no date.

Elements of this version have been considered in this dissertation’s research.

However, the most important comparisons are found in Aguado’s 1843 method, *la Nouvelle Method*, the third version of his method. He wrote this at fifty-nine years of age, a complete compendium of his lifelong experience as an innovator of the guitar. The 1843 method is the most complete book on guitar technique ever undertaken, before or since, and although it seems unlikely that the final Aguado method was an influence on Hudleston’s treatise (not least due to the date of publication) it is nonetheless important to compare the two documents in relation to harmonics in the nineteenth century. The depth of Aguado’s research into guitar technique is outlined by Jeffery in his preface.

---

<sup>36</sup> Ibid, 52.

<sup>37</sup> See chapter 4.2.

The result is a certain lack of breadth of vision but on the other hand an intense concentration on detail. No writer before him (or indeed, it is probably true to say, after him), in any country or at any period, studied and analysed guitar technique to such an extent. And there is no doubt of his success: the technique which he set out is, in all its essentials, identical to that which has been generally adopted today.<sup>38</sup>

Aguado also notes the scordaturas of Sor in F or D.

When Sor played in the keys of F or D, the tonics of which are a semitone or tone from the open sixth string, he raised or lowered the string to the tonic which gave the harmonics of this particular keynote, and made it easier to play chords. The passage in plate 8 is taken from a work of his entitled: *Methode pour la Guitare*, published in Paris.<sup>39</sup>

This selection of observations on the subject of harmonics does not necessarily imply that Hudleston had a copy of Aguado's 1843 method and, of course, the fact remains that Hudleston's treatise is dated 1841. But it is certainly intriguing to consider the idea that either Aguado (or perhaps De Fossa) somehow had access to Hudleston's

Document or somehow came into contact with Hudleston's ideas either directly or indirectly.

There are two main aspects of Aguado's 1843 method in relation to Hudleston.

Firstly, the level of detail that Aguado enters on the subject is second only to Hudleston. There are almost three pages and another two plates with musical examples and drawings. The second point is not entirely unrelated to the first.

Aguado uses the same notation system of a line above or below the fret number to indicate that the harmonic is found either above or below a certain fret.

---

<sup>38</sup> Jeffery, 'Preface', x.

<sup>39</sup> Aguado, *New Guitar Method*, 53.

The 3 and the 2 with a short line over them mean that the finger should play the harmonic of the string slightly ahead of the third and second frets; the same numbers with a short line below them (3 and 2) indicate that they have to be played slightly behind the corresponding frets.<sup>40</sup>

Figure 6. shows Aguado's table of harmonics from the 1843 method.

---

<sup>40</sup> Aguado, *New Guitar Method*, 51.

Figure 6.

Aguado's 1843 Table of Harmonics, Plate 7

*The Most Common Harmonics*

The diagram illustrates the most common natural harmonics on a guitar. At the top, a fretboard diagram shows frets 1 through 12. Below it, six staves of musical notation represent the 6th, 5th, 4th, 3rd, 2nd, and 1st strings. The 6th string staff shows notes at frets 12, 9, 7, 5, and 4, with a bracket labeled 'clear harmonics' under the 9 and 7 fret notes. The 5th string staff shows notes at frets 12, 9, 7, 5, and 4, with notes at frets 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, and 1 labeled as 'unclear harmonics'. The 4th, 3rd, 2nd, and 1st string staves also show notes at frets 12, 9, 7, 5, and 4, with notes at frets 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, and 1 labeled as 'unclear harmonics' or 'out of tune'.

Hudleston uses this system throughout his treatise and first explains it on page five, but there are countless examples of it throughout the document as will be seen later in this document.<sup>41</sup>

*N.B. a dash under the number 3. denotes that the harmonic is made a little above the 3rd fret and a dash above the number 3 means a little below the fret for instance A made a little below the 3rd fret but C a little above the 3rd fret as no harmonic is made at the 3rd fret exactly but a little below or a little above I shall more conclude with the harmonics in G by giving an example of two Airs played in harmonics in this key –<sup>42</sup>*

The date of Hudleston's letter to Ottley and the subsequent treatise is 14 August 1840. Aguado's final method was not published until 1843. It was impossible that Hudleston had a copy of the 1843 method by Aguado. This over-lining or underlining of numbers could be merely a coincidence or could it indicate that there was communication between Hudleston and Aguado, either directly or indirectly via De Fossa. At this stage it would be difficult to ascertain with any degree of certainty, but perhaps were there more research into the life of De Fossa and his movements it could be possible (As a soldier he had already travelled as far as Mexico) but this research is beyond the scope of this project.<sup>43</sup>

## **2.8 Methods for Other Instruments**

In addition to the sizeable collection of guitar methods and music there is a number of treatises for other instruments in Hudleston's collection. They do not seem to have any direct connection to his treatise, but they show that his musical education was not limited to the guitar and that he familiarised himself with compositional

---

<sup>41</sup> See appendix A, 125.

<sup>42</sup> Hudleston, 'A Treatise of Harmonic Sounds', 5.

<sup>43</sup> Matanya Opee, 'Francois De Fossa, A French Guitarist in Mexico', 30 April 1999 <<http://www.guitarandluteissues.com/defossa/mexico.htm>> [accessed 1 May 2019].

technique and the musical world in general. The presence of these books along with the vast size of Hudleston's collection suggests that he may have had an important role in the musical life in Madras, perhaps lending or copying music for other amateur musicians in India.<sup>44</sup> Hudleston's membership of the Madras Society of Amateurs along with Sabbiah Mutiah's claims that Indian newspapers detailed other India-based guitarists performing the works of Hudleston could support this idea. Mutiah also claims that Hudleston was teaching during his years in Madras, but gives no source for this information.<sup>45</sup>

There is only one non-guitar method that is referenced in Hudleston's treatise – Bochsa's *A new and improved method of instruction for the harp*. It is mentioned in the main text, but also may have influenced Hudleston's decision to add the appendix on 'the harp method' or perhaps Hudleston acquired it in order to research the technique.<sup>46</sup>

Listed here are the methods and treatise for instruments other than the guitar that remain in the Hudleston collection today.

*A new and improved method of instruction for the harp, in which the principles of fingering and the various means of attaining a finished execution on that instrument, are clearly explained and illustrated by numerous examples and exercises, Bochsa, Nicholas Charles*

*An Introduction to Extemporary Modulation in six general lessons for the Piano Forte or harp:*

---

<sup>44</sup> Sabbiah Mutiah, 'Musical life in early Madras', *The Hindu*, 5 November, 2012. Mutiah suggests that other guitarists in India were playing Hudleston's compositions, but gives no reference or evidence to support the idea.

<sup>45</sup> Sabbiah Mutiah, 'The Guitar Playing Collector', *The Hindu*, 21 May 2007, updated 18 July 2011 <<https://www.thehindu.com/todays-paper/tp-features/tp-metroplus/the-guitarplaying-collector/article2245530.ece>> [accessed 1 May 2019].

<sup>46</sup> See chapter 4.3, 120.

*with directions how they may be rendered useful for the violin and violoncello ... Op. XI ,*  
Anon.

*A new and enlarged edition of Monzani's Instructions for the German Flute 3rd ed.,* Monzani,  
Tebaldo

*Méthode de clarinette,* Lefèvre, Jean-Xavier

*Tully's instructions for the French horn,* Tully, Charles

## **2.9 Summary**

The technique of producing harmonics on the guitar was a new invention of the nineteenth century. Hudleston did not discover it, but he expanded it beyond anything that had come before. The most likely source for the origin of harmonics was folk musicians in Spain as observed by Sor. It would seem plausible that the phenomenon of producing a harmonic has existed as long as plucked string instruments, but the control of the technique was an early nineteenth-century pursuit possibly brought about by the popularity of theme and variation compositions.

Hudleston worked through his large library of methods and treatises in order to inform himself on best practice in relation to harmonics. It is clear that he studied all of the books in his possession as well as a number of others which can be reliably referred to as lost from the collection. Practice based research on the guitar must have also featured strongly in his work, a reasonable percentage of the advice presented in Hudleston's treatise does not appear in other methods. His dedication to the main methods of Carulli, Sor and Aguado is substantial and we can assume that he studied every aspect of guitar technique presented in their books with great

intensity. It was only after twenty-four years of playing and studying that he decided to write his own treatise on harmonics due to the fact that he felt this was the one area of guitar technique that had not been fully represented in the available literature.



## Chapter 3

### Examination of the Treatise

#### 3.1 Opening Letter

It is within the opening letter from Hudleston to Captain Coghill Glendower Ottley that many of the most illuminating points are found about Hudleston himself and his treatise. Captain Coghill Glendower Ottley was an officer from the European Madras Regiment and presumably a fellow guitar enthusiast and friend of Hudleston.<sup>1</sup> It is the only source of Hudleston's writing other than the treatise itself that is currently available. The book itself consists of a two-page table of contents, the opening letter (also two pages), and forty-one pages of the treatise. The first thirty-nine pages of the treatise are copies of an original document (location unknown at present). The final two pages, added some years later as an appendix, are in Hudleston's own hand.<sup>2</sup> It is possible the original was sent to Ottley and Hudleston had a copy made for himself.

The handwriting of both the copyist and Hudleston is difficult to decipher. Hudleston acknowledges this in relation to his own hand by acknowledging the copyist in opening letter.<sup>3</sup> Hudleston's scrawling handwriting was perhaps a product of his many years keeping records and general administration as a civil servant in a bureaucratic record keeping system. This is also demonstrated in the numerous margin notes found throughout his collection.

---

<sup>1</sup> Thomas Lawrence Behan, 'Bulletins and Other State Intelligence, Part 1, Compiled and arranged from the official documents published in the London Gazette., 1855' (The University of Michigan, 2007) 819.

<sup>2</sup> See appendix B, 147.

<sup>3</sup> Josiah Hudleston, 'A Treatise of Harmonic Sounds', undated manuscript of 178 pages, Royal Irish Academy of Music, H.MS.III. (unpublished, c.1840), 1. Hudleston refers to the copyist, the first word is very difficult to decipher, it may say 'hitherto a poor East Indian', there are no indications or evidence that this copyist was working regularly for Hudleston or at what location he or she may have been based.

In the letter Hudleston professes that the idea of writing a guitar method was originally suggested to him by ‘Fraderico Zcherpel’.<sup>4</sup> Frederick Zcherpel (1793-1869) was the organist and musical director at Saint George’s Cathedral in Madras in the 1840s.<sup>5</sup> Hudleston states that he had begun to write a complete method some years previously but had abandoned it as he felt Carulli, Aguado and Sor ‘give me all the information requisite for acquiring a thorough knowledge of this most delightful instrument’ and he recommends that every guitarist should own the aforementioned methods.<sup>6</sup> This provoked Hudleston’s decision to draw upon his many years of research and concentrate on a single area of technique: harmonics.

To say that Hudleston was going to delve into the subject of harmonics more deeply than had previously occurred in his contemporaries’ methods is an understatement. The treatise is without doubt the most in-depth study of harmonic technique ever undertaken for the guitar.

### **3.2 Notation**

The letter to Ottley serves as a preface to the treatise. The treatise starts rather abruptly, with one of the few headings included by Hudleston.<sup>7</sup> Beginning simply with ‘Illustrations of the harmonic sounds on the guitar as exemplified in the following scales and exercises’.

---

<sup>4</sup> James Eames (ed.), *The Idler and Breakfast Table Companion, Vol 1 no.8* (London: George Denney, 1864), 59. A musical review ‘The Goblin Quadrilles by Calder Campbell of the Madras Army. T.E. Purday. A very pleasing collection of spirited quadrilles arranged for the piano-forte; to which is added a very pretty waltz by Adrian Frederic Zcherpel of Madras’..

<sup>5</sup> Sabbiah Mutiah, ‘Musical life in early Madras’, *The Hindu*, 5 November, 2012. Judy Weggelar, *Frederick Zcherpal (1793 – 1869)* <<https://www.wikitree.com/wiki/Zscherpel-15>>[accessed 28 May 2019]

<sup>6</sup> Hudleston, ‘A Treatise of Harmonic Sounds’, 1.

<sup>7</sup> There are no headings in the original manuscript; the headings in bold are editorial, they have been included here to simplify the structure of the treatise.

A scale of G in harmonics is presented and Hudleston explains below his notation technique in regard to fingering.

Musical Example 1.

### Key of G



Scale of G in Harmonics, from Hudleston, 'A Treatise of Harmonic Sounds', 3.

DVD Track 1.

Below the scale he writes 'N.B. The upper figures denote the frets and the figures below the strings on which the harmonics are made'.<sup>8</sup> He retains this system for the entire treatise, the actual string number running from high E as 1<sup>st</sup> string to low E as 6<sup>th</sup> as would be expected and above the staff the fret is indicated by a number. There is no indication of left hand fingering, which he discusses later.

The notation method that Hudleston employs is in some ways quite similar to Fernando Sor's compositions, but very different from the approach outlined in Sor's method. In musical example 2 it is seen that Sor uses a different fingering method to explain the fingerings and pitch, in this case a scale in D.

---

<sup>8</sup> Hudleston, 'A Treatise of Harmonic Sounds', 3.

## Musical Example 2

Sor's Notation, from *Method for the Spanish Guitar*, 35.

Ex: 76 .  
Natural sounds.  
6th String in D .  
Harmonic sounds.  
Strings.  
Frets.  
12 9 12 12 7 4 12 7 12 4 5 3 4 5 3 4  
1182

The image shows a musical score for the 6th string of a guitar in D tuning. It consists of two staves. The top staff is labeled 'Natural sounds' and contains a sequence of notes with a treble clef and a key signature of one sharp (F#). The bottom staff is labeled 'Harmonic sounds' and contains a sequence of notes with a bass clef. Below the bottom staff, a series of fret numbers (12, 9, 12, 12, 7, 4, 12, 7, 12, 4, 5, 3, 4, 5, 3, 4) are aligned with the notes. A dotted line connects the notes in the top staff to the notes in the bottom staff, illustrating the relationship between the natural and harmonic sounds. The number '1182' is printed at the bottom center of the page.

The pitches are represented by Sor at actual pitch (allowing for the guitar's usual transposing clef). But it seems unnecessarily complex and is not the method that Sor generally uses in his compositions. Usually he simply indicates the fret number, differentiated from a regular fingering mark by the addition of '5<sup>th</sup>', for example, rather than simply 5. The system from musical example 2 continues in his examples in his method.

Musical example 3 is an excerpt from Sor's *Fantasia Elegiaque* taken from the Hudleston collection. Interestingly Hudleston has glued a piece of manuscript giving the actual sounded pitch of these harmonics for the last two bars of the piece which underlines his interest in such musical passages involving harmonics.

Musical Example 3

Final Bars of Sor's *Fantasia Elegiaque*.



Louisa Kirkmann's treatise seems to have also have been of particular interest to Hudleston in terms of notation. Musical example 4 demonstrates her system. It has a marking by Hudleston in the margin beside the harmonics section. However, Kirkmann is essentially using the same system as Sor, leaving it to the player to find the exact position and node of the harmonic.

Musical Example 4

From Kirkmann's *Method*, Ex.78

Ex: 78. XXIII

Result to be produced: **ANDANTE**

Operation in Harmonics: **6th String:**

The image shows a musical score for a guitar exercise. It consists of two systems of staves. The first system has two staves: the top one is labeled 'Result to be produced' and the bottom one is labeled 'Operation in Harmonics: 6th String:'. Both are in G major (one sharp) and 2/4 time. The tempo is 'ANDANTE'. The second system has two staves, both in G major and 2/4 time. The top staff shows the melodic line, and the bottom staff shows the harmonic accompaniment with fingering numbers (4, 5, 7, 8, 5, 5, 7, 5, 7, 4, 5, 12, 3, 4, 5, 12, 7, 3, 7, 7, 7) written below the notes.

In musical example 5 the string is not given, just the resulting pitch (an octave lower).

Musical Example 5

Kirkmann, Second Version from *Method*, 22.

Written an Octave lower than the natural Sound.

The image shows a musical score for a guitar exercise. It consists of three staves in G major (one sharp) and 3/8 time. The first staff is labeled 'Har: 12th' and 'loco'. The second staff is labeled 'loco', 'Har: 7th', and 'Har: 5th'. The third staff is labeled 'loco', 'Har: 7th', 'Har: 5th', and 'loco'. The score shows a sequence of notes and chords, with some notes marked as 'loco' and others as 'Har: 12th', 'Har: 7th', or 'Har: 5th'.

Aguado also employs this method, at least in the 1828 method from Hudleston’s collection. Although he follows Sor in his notational approach they differ in their initial explanation of the technique. ‘To indicate the harmonics, I employ the same means as Mr. Sor;\_ I write the note which represents the open string, and add the figure which corresponds to the fret which produces the harmonic note required’.<sup>9</sup>

Carulli, however, uses exactly the same method as Hudleston as can be seen in this musical exercise from Carulli’s method in the collection of Hudleston.

### Musical Example 6

Carulli’s Notation, from *Guittare-schule*, 38.

The image displays a musical score for guitar, divided into two sections: **Allegretto** and **Andante**. Both sections are written in treble clef with a key signature of one sharp (F#). The **Allegretto** section is in 6/8 time and consists of two staves of music. It features a melodic line with natural harmonics (indicated by a horizontal bar over the note) and fret numbers (indicated by numbers below the notes). The **Andante** section is in 2/4 time and also consists of two staves. It features a melodic line with natural harmonics and fret numbers. The score concludes with the word 'FINE' and 'D.C.' (Da Capo).

This connection is hardly surprising seeing that this was one of the principal methods for Hudleston by his own admission. ‘Every guitarist should have Carulli’s method –

<sup>9</sup> Aguado, *A New Method*, 51.

Aguado's excellent instructions and Sor's admirable treatise'.<sup>10</sup> But it is within Catherina Pratten's method that the most comprehensive comparison of the various methods are found. She gives the following examples of how harmonics can be notated starting with a general example.

Example 216 gives the actual sound of the harmonics, but without showing up on which strings they are to be taken, only giving the frets, so it is presumed by the writer that the pupil is acquainted with the natural harmonics of the guitar.<sup>11</sup>

### Musical Example 7

Pratten, Ex.216, *Guitar School*, 66.

The image shows two staves of musical notation for Example 216. The top staff is labeled 'as written.' and the bottom staff is labeled 'as played.'. Both staves are in 3/8 time and have a key signature of one sharp (F#). The top staff shows notes with fret numbers 12, 7, and 12 written above them. The bottom staff shows notes with fret numbers 12, 7, and 12 written below them. The word 'Strings' is written below the bottom staff.

She then gives the example of Kreutzer and Giuliani:

Example 217 gives a mode adopted by many writers, which I consider unnecessarily complicated \_ The upper line of figures signify the frets \_ The notes are those which would be produced by pressure in the ordinary way, but it is intended that they should be played as harmonics without pressure. The figures under the notes indicate the strings to be struck.

Pratten's third example is Sor, not the method that was examined in musical example 2 but his more general method within his compositions as shown in musical example 3 (*Fantasia Elegiaque*). Here there is no indication of strings or frets, just the end

<sup>10</sup> Hudleston, 'A Treatise of Harmonic Sounds', 33.

<sup>11</sup> Pratten, Madame R. Sidney, née Pelzer, *Guitar School* (London: Boosey and Sons, n.d.), 3. Pratten, *Guitar School*, 66.



result. Pratten gives an actuation of the example for comparison.

### Musical Example 8

Pratten, Ex. 218, *Guitar School*, 67.

218. As written. 6th String tuned down to  
As played.

Harmonique F. SOR. Op. 40.

Figures indicate frets.  
Notes indicate strings.

M<sup>rs</sup> R. S. PRATTEN'S Guitar School

She gives a further example from Legnani, fingered in the same fashion as Sor.

The next example in the Pratten book is described as as ‘the most satisfactory mode ... because the small notes above, shew what notes are produced’.<sup>12</sup> This is a hybrid system with the open strings given on the staff and their corresponding frets in numbers below the staff. Then a notated second, upper voice gives the sounded pitch.

### Musical example 9

Pratten, Ex. 220, *Guitar School*. 67.

220. Harmonique

&c.

Pratten gives a further method, a second example from Legnani who, like most of the

<sup>12</sup> Pratten, *Guitar School*, 67.

contemporary composers, used more than one method of writing harmonics in his oeuvre. ‘Another mode of writing harmonics found in Legnani’s Trente Six Caprices Op. 20. wherein he writes the actual sounds of which he intends the harmonics to produce\_ The frets are indicated by figures above, and the strings in like manner below’.<sup>13</sup>

### Musical Example 10

Pratten, Ex. 221, *Guitar School*, 67.

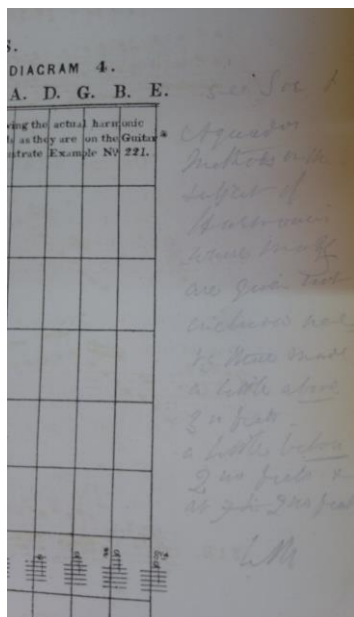
The image shows a musical score for Legnani's Op. 20, Ex. 221. It consists of two staves. The top staff is labeled 'Written thus.' and shows a sequence of notes with fret numbers (7, 9, 12) written above them. The bottom staff is labeled 'Solution.' and shows the same sequence of notes with string numbers (9, 7, 12) written below them. A central instruction reads: 'The notes indicate the Strings and the figures Frets.' The score is titled 'LEGNANI. Op. 20.' and '221.' in the left margin.

Pratten does not get a mention in Hudleston’s treatise, but a couple of key points prove that her method was a key part of Hudleston’s research. Figure 7 shows handwritten notes within the margin of this section on harmonics, next to the example by Kreutzer where the following is written. ‘See Sor and Aguado methods on the subject of harmonics where many are given not included here and mine made a little above 3<sup>rd</sup> fret , a little below 2<sup>nd</sup> fret and at 2<sup>nd</sup> fret. J.H.’

<sup>13</sup> Pratten, *Guitar School*, 67.

Figure 7

Hudleston's Margin Notes from Pratten, *Guitar School*, 66.



The Phipps book gives yet another method for fingering, although it is very interesting to note that Hudleston has added an alternative fingering in pencil. It shares much with the Sor/Aguedo method which could be considered the norm, but proved not to be detailed enough for Hudleston's purpose.

## Musical Example 11

Phipps, Harmonics in Imitation of a Horn, Pelzer, Ferdinand, *One Hundred and Fifty Exercises*, 22.

The image shows a musical score for a piece titled "LA CHASSE DU JEUNE HENRI QUATRE" with harmonics in imitation of a distant horn. The score is in 2/4 time and marked "Allegretto". It features two staves of music. The first staff is the main melody, and the second staff shows the harmonic accompaniment. The harmonics are indicated by numbers 1, 2, 3, and 0, corresponding to the B, G, and D strings. The score includes the title "LA CHASSE DU JEUNE HENRI QUATRE" and the subtitle "with Harmonics in imitation of the sound of a distant Horn." The tempo is "Allegretto". The key signature is one sharp (F#). The score is numbered "250" and "15" at the top. The subtitle "The Harmonics. — The Glissé. —" is also present.

The notes below are by Hudleston himself, hand written into the Phipps book.

*Note 1. The first finger is carried to A at the 5<sup>th</sup> fret which brings the Third finger over the 7<sup>th</sup> fret in readiness to touch the Harmonics on the B, G, and D strings. Strike them with the Thumb, or first finger of the Right Hand close to the Bridge. P1<sup>14</sup>*

Although the Pelzer method has no instruction on how to play harmonics, it does feature harmonic sections in the exercise without explanation. This does, however, demonstrate a method for writing which again is similar to the Sor method.

## Musical Example 12

Pelzer's Notation, Pelzer, *One Hundred and Fifty Exercise...*, 24.

The image shows a musical score for an exercise titled "enharmonique". The score is in 2/4 time and features a single staff of music. The exercise is marked "II." and includes a section labeled "enharmonique". The score includes the title "enharmonique" and the Roman numeral "II.". The key signature is one sharp (F#). The score is numbered "11" and "11" at the top. The subtitle "enharmonique" is also present.

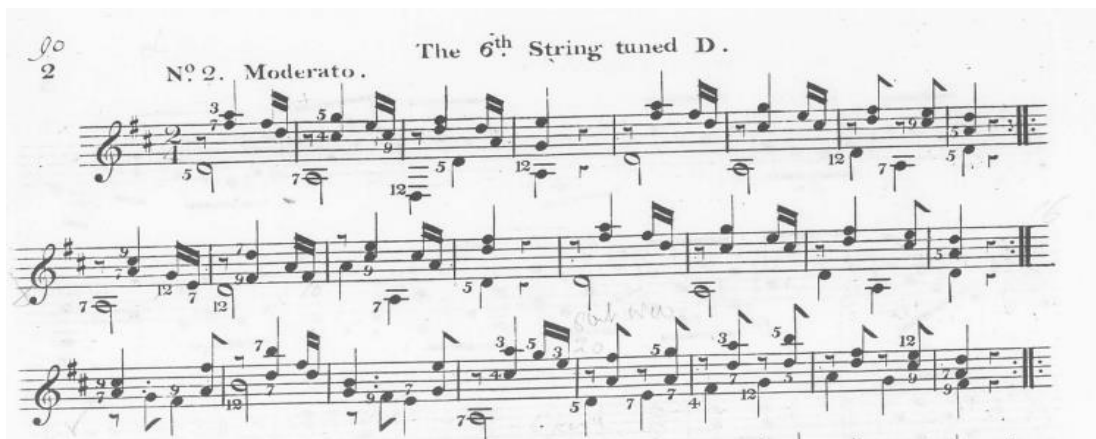
Anthony Brown's treatise, although perhaps the closest to Hudleston's in terms of depth of explanation on the subject of harmonics does not echo Hudleston's fingering

<sup>14</sup> Thomas Phipps *Illustrations of the Spanish Guitar* (London: Keith, Prowse and Co., n.d.), 1.

method. It does come close with the fret indicated above, but the string number or name is not given.

### Musical example 13

Brown's Notation, *Six Divertimentos*, No. 2.



Hudleston opted to use a decidedly different and more detailed fingering method from that of his contemporaries for his in-depth harmonic treatise. The other methods do not delve into the subject in the same detail as Hudleston and his musical examples are so specific that his over-zealous fingering method was perhaps necessary. If he were to simply adopt the most common method the result would be quite confusing. One might argue that Hudleston's musical examples are already over-complicated despite the use of his detailed finger system but many of his directions are so far from what might be considered normal that the directions are necessary.

### 3.3 Scale of G continued

After Hudleston's initial outline of his two-octave scale of G he explains that all the notes are possible with natural harmonics except for the C. The C requires an

artificial harmonic. He explains the technique for playing the C as follows. ‘play first note this c in the ordinary way by stopping it at the first fret of the second string then place the first finger of the right hand over the thirteenth fret and pull the string with the thumb of the right hand well stretched behind’.<sup>15</sup>

He continues by explaining that any pitch might be created in the same way, by ‘dividing the string in half’. In addition he introduces his second technique, the ‘violin method’, to enable the production of the aforementioned C in a different way.

the second process by which you can produce the C above alluded to is by double stopping with the left hand alone, as is done by the violin. It is thus accomplished, stop this C in the usual manner at the third fret of the the fifth string with the first finger then extend the fourth finger at five frets distance or over the eight fret & you have the double octave of the C above mentioned.<sup>16</sup>

Hudleston maintains that this method has an advantage over the conventional artificial harmonic method because it takes little or no movement of the right hand. However, he warns that it should be ‘resorted to with great caution’ due to the left hand stretches required and suggests an alternative of creating the C in question on the sixth string. As the frets get progressively closer on the fingerboard in the higher positions this reduces the distance needed to create a five-fret stretch.

He reiterates his advice that this is a technique to be used sparingly and explains his inclusion of the technique. ‘I have never had occasion to resort to the last mode of making the C but thought it well to mention it could be effective as I am anxious to throw all the light I can on the subject of the beautiful sounds and enable you to

---

<sup>15</sup> Hudleston, ‘A Treatise of Harmonic Sounds’, 3.

<sup>16</sup> Ibid., 4.

profit by my researches'.<sup>17</sup>

Hudleston then repeats the G major scale with the inclusion of the violin technique harmonic he explains that a C fretted at the ninth fret of the sixth string is easily accessed from the preceding B as the natural twelfth fret harmonic of the second string. He prefers that option over an awkward leap and stretch on the fifth string or an artificial harmonic that would require a manipulation of the right hand.

This is the method favoured by Fernando Sor in his method; however, it is not referred to in any of the other methods in Hudleston's collection, his preference for the violin style over the standard artificial harmonic.<sup>18</sup>

### **3.4 Chords in the Key of G**

Hudleston's next section deals with double stops and three-note chords in the key of G. Hudleston gives his first musical example via a set of two-, three- and four-note chords or intervals.

---

<sup>17</sup> Ibid., 4.

<sup>18</sup> See chapter 4.2.

## Musical example 14

Chords in the key of Sol, from Hudleston, 'A Treatise of Harmonic Sounds', 5.

DVD Track 2.

The image shows a musical staff in G major (one sharp) with a common time signature. The staff contains 12 measures of music, each featuring a chord. The notes are represented by black dots on the staff lines. Below the staff, there are numbers indicating fret positions and fingering. Some numbers are underlined, and some have dashes above or below them. For example, in the second measure, there is a '3' with a dash above it and a '4' below it. In the third measure, there is a '3' with a dash below it and a '2' below it. The notation is a shorthand for guitar or lute playing, where the numbers represent frets and the dashes indicate specific harmonic techniques.

Hudleston expands on his notation method with an important note, 'N.B. a dash under the number 3. denotes that the harmonic is made a little above the third fret and a dash above the number 3 means a little below the fret ... as no harmonic is made at the 3<sup>rd</sup> fret exactly'.<sup>19</sup>

He gives the example of an A or C being made at the third fret, although he does not indicate which string this occurs on. It is fair to assume that he refers to the fourth string as indicated in the above musical example as the second note of the second bar.

Two musical examples are given, played completely in harmonics. Firstly, *Auld Land Syne* in his own arrangement, secondly, an excerpt from Carulli's Opus 60, *J'Aime les Fillettes*.

---

<sup>19</sup> Ibid., 5.



Musical Example 15

*Auld Lang Syne*, from Hudleston, 'A Treatise of Harmonic Sounds', 6.

DVD Track 3.

*Auld Lang Syne*

He makes one small comment on the Carulli excerpt, remarking that the C# denoted for execution at the fourth fret should be, in his opinion played at the ninth. He claims Carulli was not aware of the relationship between 4<sup>th</sup> and 9<sup>th</sup> fret harmonics. 'He [Carulli] does not appear to be aware of the fact that the same harmonic sounds that are made at the fourth are made also at the ninth – where it is often more convenient to make'.

However, this comment on Carulli's ignorance of the interchange of the 4<sup>th</sup> and 9<sup>th</sup> fret harmonics is untrue.<sup>20</sup>

<sup>20</sup> See chapters 3.16, 94 and 3.18, 108.

### 3.5 Scales in A

The next section sets out the scales of A major, which, due to the fact that two complete diatonic octaves can be produced using only natural harmonics, Hudleston describes as ‘a more effective key than the key of G’.<sup>21</sup> He includes a two-octave scale of A with vertical text explaining some of the less conventional positions.

#### Musical Example 16

Hudleston’s Scale in A, from Hudleston, ‘A Treatise of Harmonic Sounds’, 16.

DVD Track 4.

The diagram shows a two-octave scale in A major on a stringed instrument. The notes are: A2 (5th string, 6th fret), B2 (6th string, 6th fret), C3 (5th string, 5th fret), D3 (4th string, 4th fret), E3 (5th string, 3rd fret), F#3 (4th string, 4th fret), G#3 (6th string, 6th fret), A3 (4th string, 4th fret), B3 (3rd string, 3rd fret), C4 (5th string, 5th fret), D4 (3rd string, 3rd fret), E4 (5th string, 5th fret), F#4 (2nd string, 2nd fret), G#4 (3rd string, 3rd fret), A4 (1st string, 1st fret), B4 (2nd string, 2nd fret), C5 (1st string, 1st fret), D5 (3rd string, 3rd fret), E5 (2nd string, 2nd fret), F#5 (1st string, 1st fret), G#5 (3rd string, 3rd fret), A5 (2nd string, 2nd fret).

Vertical text annotations below the notes provide alternative fretting techniques:

- For the 3rd fret D (F#3): *this B can be made on two other strings Viz at 5th fret of 2nd string or 7th fret of the chanterelle or a little below 2nd fret of 5th string*
- For the 3rd fret E (D4): *this D can also be made a little below 2nd fret of the Re where in fact it comes out more clearly than it does below 3rd fret of the sol. my discovery.*
- For the 2nd fret F# (F#4): *this F can also be made a little above 2nd fret of the Re according to my recent discovery*
- For the 3rd fret G# (G#4): *this comes out with great difficulty and is never used but it is given to show what harmoniques belong to certain parts of a string*

The vertical lines refer, for the most part, to the more difficult executions of harmonics such as the ones on the second fret. But they also outline some other alternatives. In addition Hudleston sets out a small example of the more

<sup>21</sup> Hudleston, ‘A Treatise of Harmonic Sounds’, 6.

straightforward harmonics found in the lower octave.

### Musical Example 17

Lower Octave in A, from Hudleston, 'A Treatise of Harmonic Sounds', 7.



He explains that in order to add these notes and realise the potential third octave of an A major scale that a C# and F# has to be created using an artificial harmonic of some kind. His suggestion is to use a standard artificial harmonic based on the C# from the 4<sup>th</sup> fret of the 5<sup>th</sup> string. In this regard he is veering away from his distaste for the standard artificial harmonic, but there is no other way that the pitch might be reliably created.

### 3.6 Three Pieces:

In the next section Hudleston includes three short extracts to demonstrate the techniques that he has so far described. One of these examples is taken from his own arrangement of the Chorus from François-Adrienne Boidenne's *La Dame Blanche* and the other two are taken from the works of Luigi Legnani.

## Musical Example 18

Sons Harmoniques, from Hudleston, 'A Treatise of Harmonic Sounds', 8.

DVD Track 5.

*Sons Harmoniques*

*Allegro*

The musical score is written in G major (one sharp) and 6/8 time. It consists of three staves. The top staff is labeled 'frets' and the bottom two are labeled 'strings'. The music features a sequence of chords and single notes, with various fret numbers (7, 9, 12) and string numbers (1-6) indicated above and below the notes. The piece is marked 'Allegro'.

In his example Hudleston explains that harmonics for the 7<sup>th</sup> and 9<sup>th</sup> frets may alternatively be played on the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> frets and subsequently bars eleven to fourteen might be played in different ways.

The Legnani extract (musical example 19) is taken from opus 12, *Variations on a Tyrolean Air Harmonia*, the eighth variation which Hudleston describes as an 'excellent lesson for teaching you all the harmonic sounds that are made on the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> strings at the 5<sup>th</sup>, 4<sup>th</sup> and 3<sup>rd</sup> or another a little below 3<sup>rd</sup> frets/. and as the variation is played entirely on the silver strings the harmonics are much sweeter & fuller in tone than they would be if made on the other strings.'

Musical Example 19

Legnani Extract, from Hudleston, 'A Treatise of Harmonic Sounds', 9.

DVD Track 6.

*The following is extracted from Legnani's Opera 12.  
Being the 8th Variation on a Tyrolian Air  
Harmonia*

*toucher*  
*un poco moderato*

*cordes*

The musical score consists of four staves of music in 3/4 time. The first staff includes fingerings for both the toucher (top line) and cordes (bottom line). The fingerings for the toucher are: 5 5, 5 6 6 3̄ 4 3, 5 4 3̄ 3̄ 2 4 5, 5 4 3 3 5 4 3, 5 4 3 4 3 4 5 3. The fingerings for the cordes are: 5 6, 5 5 5 6 5 6, 6 5 6 4 5 5 5, 3 4 5 6, 5 6 6 5 6 5 4 5. The second staff continues the melody with fingerings 5 4 3 3 5 4 3 and 3 4 5 6. The third and fourth staves continue the piece without fingerings.

In the third extract Hudleston instructs that the harmonics are fingered in the higher positions to enable two- and three-part harmonies with 'beautiful effect' is taken from Legnani's number 25 from a set of thirty-six Caprices, opus 20.

## Musical Example 20

Legnani Caprice 25 from 36 Caprices, in Hudleston, 'A Treatise of Harmonic Sounds', 10.

DVD Track 7.

*Andante grazioso,*

Pages ten and eleven are missing from the manuscript, they have been torn out.

However, there does not seem to be any gap in the text or musical examples. It seems most likely that some sort of editing of a mistake or damaged paper led to them being removed as the treatise does not seem to be skipping any information at this point.

### 3.7 Key of D Major

In the next section Hudleston deals with the key of D, with a scordatura of the bass string from E down to D. He outlines that this makes two octaves possible in natural harmonics making D major 'the most effective of keys' and for this reason he gives a larger number of musical examples. As with the previous sections he begins by setting out the complete harmonics in a two-octave scale with some additions.

Musical example 21

Scale in D, from Hudleston, 'A Treatise of Harmonic Sounds', 13.

DVD Track 8.

*frets*

*strings*

all the nineteen sounds come out as clearly as possible I could have intended  
the scale two notes higher, by giving the G in altissimo a little below the  
2nd fret of the sol and the A in at the 2nd fret of the sol but that is undecisive  
to take harmonics on the 1st, 2nd and 3rd strings higher than those made a little below  
the 3rd frets as they will not sound clearly as do all that can be made on the  
4th 5th & sixth string. -

or 5th fret of the 2nd string or 7th fret of the 1st string

a little below the 2nd fret of the 4th string where it sounds more certain

This is followed by a short exercise and an explanation that an A may be sounded at the 7<sup>th</sup> fret of the 4<sup>th</sup> string or 5<sup>th</sup> fret of the 5<sup>th</sup> string and similarly the E of the 12<sup>th</sup> fret first string or the 3<sup>rd</sup> fret of the 5<sup>th</sup>. The choices of which to use depending on the fingering of the previous or the succeeding notes.

Hudleston then chooses a 'trumpet tune that used to be played at the execution of malefactors in Edinburgh' as an example of playing in two parts in the key of D. The

trumpet tune is followed by another example exercise, now in three parts. The excerpt is unnamed, but described as an ‘Air with a variation in triplets’.<sup>22</sup>

Prior to the next musical extract Hudleston reminds the reader that the harmonics sound an octave higher than written. Indeed some of the notes are very high and difficult to read, which he acknowledges. ‘I write the music thus to avoid giving the very highest notes such as the sixth and seventh ledger lines which are difficult to the eye’.<sup>23</sup>

The next musical example is from Hudleston’s own composition, *A Dozen Shades on Roseau’s Dream* which he has transposed into D from the original key of G to create the following harmonic exercises. This first example is *en sons harmoniques* which he describes as useful for practising 3<sup>rd</sup>, 5<sup>th</sup>, 7<sup>th</sup> and 9<sup>th</sup> fret harmonics as well as tenths, thirds and sixths.

---

<sup>22</sup> Hudleston, ‘A Treatise of Harmonic Sounds’, 14.

<sup>23</sup> *Ibid*, 17.



Musical example 22

Rousseau's Dream, from 'A Treatise of Harmonic Sounds', 15.

DVD Track 9.

6th String to D.  
Andantino *f*

The musical score is written for the 6th string of a guitar, starting in the key of D major (one sharp) and 3/4 time. The tempo is marked 'Andantino' and the dynamics are 'f' (forte). The score is divided into three systems, each containing a single staff of music. The first system begins with a treble clef, a key signature of one sharp (F#), and a common time signature (C). The music features a series of chords and melodic lines with various fret numbers (7, 9, 12) and fingerings (1, 2, 3, 4, 5, 6) indicated above the notes. The second system continues the piece, showing more complex chordal textures and melodic passages. The third system concludes the piece with a final cadence. The score is presented in a clear, legible format suitable for a DVD track.

### Musical Example 23

Rousseau's Dream, 6<sup>th</sup> Variation, from Hudleston, 'A Treatise of Harmonic Sounds',  
16.

DVD Track 10.

#### 6th Variation

The image shows a musical score for the 6th Variation of Rousseau's Dream. It consists of four staves of music in treble clef, with a key signature of two sharps (F# and C#). The music is a continuous tremolo passage of semiquaver notes. Fingering numbers are written below the notes: 7, 12, 8, 7, 7, 7, 12, 8, 7, 7, 7, 9, 7, 5, 5, 3, 7, 7, 7, 5, 3, 7, 7, 7, 12, 8, 7, 7, 7, 7, 7, 5, 3, 3, 7, 7, 5, 5, 5, 6, 5, 7, 7, 7, 12, 8, 7, 7, 7, 7, 12, 8, 7, 7, 7, 9, 7, 5, 5, 3, 7, 7, 7, 12, 8, 7, 7, 7, 12, 8, 7, 7, 9, 7, 5, 5, 3, 7, 7, 7, 12, 8, 7, 7, 9, 7, 12. There are also some accents and a fermata over a note in the third staff.

### 3.8 Tremolo

Hudleston immediately moves onto the subject of tremolo, or at least repeated semiquaver notes which he refers to as 'martellato'. This is probably a mistake by the copyist. 'I have never met with Martellato passages in harmonics – But I will here give one of my Variations in harmonics to show that Martellato passages can be played in harmonic sounds...' <sup>24</sup>

He gives a further example from his set of variations on Rousseau's Dream.

<sup>24</sup> Ibid., 17.

## Musical Example 24

Rousseau's Dream in Tremolo, from 'A Treatise of Harmonic Sounds', 17.

DVD Track 11.

variation 3

The image shows a musical score for variation 3 of Rousseau's Dream in Tremolo. It consists of three staves of music, each with a treble clef and a key signature of one sharp (F#). The music is written in a tremolo style, with many sixteenth notes. Above the notes, there are various fret numbers (9, 12, 7, 4, 6, 5, 3) and fingerings (1, 2, 3, 4, 5, 6). The score is divided into measures by vertical bar lines, and there are repeat signs at the end of the first and third staves.

### 3.9 Arpeggios

Directly after the tremolo example Hudelston gives some examples of arpeggios using harmonics via his 4<sup>th</sup> variation of Rousseau's dream. He notes that an alternative fingering is necessary in the 3<sup>rd</sup> bar on the repeat, in order to prepare for the next bar.

You will see that the latter half of the third bar is taken two ways the first time the F# & A is made at 4<sup>th</sup> and 5<sup>th</sup> frets of the 4<sup>th</sup> and 5<sup>th</sup> string & the repetitions is made at the 7<sup>th</sup> frets of the 2<sup>nd</sup> and 4<sup>th</sup> strings to prepare for the following bar.<sup>25</sup>

---

<sup>25</sup> Ibid., 17.

Musical example 25.

Arpeggios, from Hudleston, 'A Treatise of Harmonic Sounds', 17.

DVD Track 12.

Var. 4

frets

strings

### 3.10 Octaves

As the exercises become more complex Hudleston gives the option of ossia bars, variations set out above the main staff. Initially in his octave exercise where he concedes that one of the 2<sup>nd</sup> fret harmonics creates a difficulty when paired with another harmonic and in another section some difficult leaps on the same string. It can be seen below in the second part of the musical example which includes ossia bars for these sections.

## Musical Example 26

Octaves, from 'A Treatise of Harmonic Sounds' 19.

The image displays three systems of musical notation for guitar, written in treble clef with a key signature of one sharp (F#). The notation includes various rhythmic values and fingerings (numbers 1-5) written below the notes. The first system begins with a double bar line and a repeat sign, followed by a measure with a '9 7 4 5' fingering and a 'easy.' marking. The second system contains two staves of music with complex fingerings. The third system starts with a measure number '10' and continues with more complex passages. The notation is dense with fingerings, indicating a technically demanding piece.

This is a very good example of Hudleston taking techniques beyond the idiomatic.

He is acknowledging the fact that some of the examples are difficult, the leaps and stretches of example 26 require a good deal of practice to reach a sustainable degree of accuracy.

He describes the second part of the example as useful for thirds and sixths in both octaves of the D major harmonic scale. Hudleston does acknowledge that the first section is challenging due to the multiple position shifts and the distance of the shifts.

‘This variation is much easier than the first one given in octaves which I consider as a studie to enable you to find out how the octaves can be made – I should not in general write such difficult passages in harmonics’.<sup>26</sup>

### Musical Example 27

Octaves Continued, from ‘A Treatise of Harmonic Sounds’, 18.



### 3.11 Arpeggios Continued

Hudleston’s next section includes a further variation from his setting of *Rousseau’s Dream*, this time in arpeggios and again underlining his point about being flexible with fingerings. He also notes the interchangeable use of 5<sup>th</sup> and 7<sup>th</sup> fret and also of 9<sup>th</sup> and 4<sup>th</sup>. This flexibility is more helpful in arpeggios than in melodic playing, to enable the player to have a note for each string in each grouping, giving the work to the right hand and keeping a more or less static left. Again he makes a reference to the difficulty of these passages.

This last variation is rather difficult and I never in the course of twenty four years study of the instrument met with such passages in arpeggios in harmonic sounds but then it need not be played fast, it is a studie I have given it to make you perfect in various ways of giving harmonics, but as a general rule these beautiful sounds should not be given in rapid passages & are far more effective in slow pieces.<sup>27</sup>

<sup>26</sup> Ibid., 19.

<sup>27</sup> Ibid., 20.

## Musical Example 28

Arpeggios with Static Left Hand, from 'A Treatise of Harmonic Sounds', 20.

DVD Track 13.

7th var.

frets

strings

### 3.12 Fingerings

At this point in the treatise Hudleston discusses left hand fingerings for the first time. Up until this point very little has been said about which finger will actually touch the string on the left hand. He states here that 'the fingerings of the harmonic sounds is never given – one must use such fingers as will be found most convenient'.<sup>28</sup> He then describes his actual fingering for the previous musical example. This explanation becomes quite complicated as he painstakingly sets out the entire twelve bars. Below the first four bars in Hudleston's words can be seen. The remaining explanations of this technique can be seen in the appendix on page 22-24 of the treatise.

The first note I make by touching lightly on the 12<sup>th</sup> fret of the 6<sup>th</sup> string with the 3<sup>rd</sup> or 4<sup>th</sup> finger the next three notes A.D.F, being all made at the 7<sup>th</sup> fret I have only to Bar lightly over the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> strings at the 7<sup>th</sup> fret– the second group in the first bar viz.– I play so – I place the first finger over 7<sup>th</sup> fret of the sixth string which this A and the octave or next note I make with the same finger over the 7<sup>th</sup> fret of the 4<sup>th</sup> string the 3<sup>rd</sup> fret or the G# I make the

<sup>28</sup> Ibid., 20.

second finger over the 12<sup>th</sup> fret of the first string the third group in the 1<sup>st</sup> bar.

I play thus my 4<sup>th</sup> finger is placed over the 12<sup>th</sup> fret of the 4<sup>th</sup> string for the low D the 2<sup>nd</sup> is placed over the 9<sup>th</sup> fret of 6<sup>th</sup> string for the F# the 2<sup>nd</sup> next notes A & D. Are made with 1<sup>st</sup> finger over 7<sup>th</sup> frets of 3... and 4<sup>th</sup> strings. The first group of notes in the second bar viz these are played thus, the three first notes with the first finger lightly over the 7<sup>th</sup> frets of the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> strings then my 4<sup>th</sup> finger bars lightly over the 12<sup>th</sup> fret at the 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> strings which give me so you will perceive the A convincingly The group is made on the sixth string at the 7<sup>th</sup> fret where as the same note ending the groups is made on the fifth string at the 12<sup>th</sup> fret because it is in the way of playing the passage in the first group of notes in the third bar. The fourth finger placed over the 12<sup>th</sup> fret of the 6<sup>th</sup> string gives me the lowest note it immediately quits that fret and is replaced over the 7<sup>th</sup> fret of the second and 3... strings to make the D & F and at the same time the first finger is placed a little below the 3<sup>rd</sup> fret of the 4<sup>th</sup> string which gives the A The second group of notes in the bar is rather difficult and demands great accuracy.<sup>29</sup>

His description is incredibly in-depth and explains his rationale for all shifts and exchanges within what is in reality quite a short musical passage. Hudleston explains each left hand fingering in great detail as an example of best practice for the other examples. There are no such in-depth analyses or explanation of fingerings in any of the other methods of the nineteenth century, this kind of detail is only found in Hudleston's treatise in regard to harmonics.

### **3.13 Scottish, Irish and Welsh Airs**

In the next section Hudleston has arranged a selection of Irish, Scottish and Welsh Airs: *Here's a Health to Those Far Away*, *Go Where Glory Awaits Thee*, *Erin the Tear and the Smile in Thine Eyes*, *The Harp Once Thro' Tara's Halls*, *Poor Mary Anne* and *The Rising of the Lark*. These charming pieces are a chance for the reader

---

<sup>29</sup> Ibid., 22-23.



to practise the techniques that Hudleston has employed and explained in the earlier examples. They are all set in the key of D and use only artificial harmonics and give no specific fingering, but are generally reasonably idiomatic.

I shall now introduce a few Scotch, Irish and Welsh Airs which are well adapted to set off harmonic sounds as they are plaintive & to be played slowly they will be found very easy to execute and I shall not do more than number the frets and strings where the harmonics are made. The first Air is a most pathetic one.<sup>30</sup>

### Musical Example 29

*Here's a Health to Those Far Away*, J.A. Hudleston, from 'A Treatise of Harmonic Sounds' 24.

DVD Track 14.

*Here's a health to those far away - Scotch Air*

The musical score is written in G major (one sharp) and 6/8 time. It consists of three staves of music. The first staff begins with a treble clef and a key signature of one sharp. The music is characterized by a plaintive, slow tempo. Numerous artificial harmonics are indicated by numbers 7, 9, and 12 placed above the notes. Fingering numbers (1-5) are also present below many notes. The piece concludes with a double bar line.

After the third air, *Go Where Glory Awaits Thee*, Hudleston has set the repeat an octave lower and comments below it, 'Here you will remark that in commencing the air for the last time I give it an octave lower than I did at the beginning as showing

<sup>30</sup> Ibid., 24.

you how much can be played in harmonics in the key of D.’<sup>31</sup>

He makes an interesting comment on the last line of *Poor Mary Anne* in relation to a sixth double stop (B to G) that it would take the use of the left hand thumb to make the stretch, but suggests perhaps removing the lower note as the wisest policy.

### **3.14 2<sup>nd</sup> Fret Harmonics**

After this set of musical examples Hudleston returns to more challenging material by providing three Rossini extracts. He remarks that his use of 2<sup>nd</sup> and 4<sup>th</sup> fret harmonics in the below example ‘enables me to introduce the upper octave just as it is written from the piano forte’. He also gives an important piece of information at this point, ‘I find no guitar gives the harmonics so distinctly and full as Sor’s guitar’.<sup>32</sup>

---

<sup>31</sup> Ibid., 25.

<sup>32</sup> Ibid., 29.

### Musical Example 30

*God save the King*, Hudleston, from 'A Treatise of Harmonic Sounds', 29.

*God save the King*

The image shows a musical score for the piece 'God save the King' by Hudleston. It is written in treble clef with a key signature of one sharp (F#) and a 3/4 time signature. The score is divided into three systems. The first system is labeled 'frets' and the second system is labeled 'strings'. The notation includes various chords and melodic lines, with numerous fret numbers (e.g., 5, 7, 12, 9, 7, 12, 7, 7, 5, 7, 12, 7, 12, 7, 9, 12) and string numbers (e.g., 4, 3, 1, 5, 3, 2, 4, 5, 2, 3, 4, 5, 2, 3, 1, 3, 4, 6) written below the notes. The piece concludes with a double bar line and repeat dots.

Hudleston suggests that the reader should refer to Sor's 'admirable study' opus 21, Brown's set of six divertimento and his own arrangement of Handel's funeral march from Saul for more examples of harmonics in the key of D. Hudleston returns to the topic of these ultra-high harmonics later in the treatise.<sup>33</sup>

### 3.15 Key of F

Hudleston reminds the reader at this point that he has given the 'three best keys' of G, D and A. He then discusses an option for playing in F with another scordatura.

I have now given you the harmonic sounds in the three best keys for them viz G, D and A perfect scales could not be made in the ordinary way in harmonics in other keys with the exception of F in which key by tuning the 6<sup>th</sup> string to F / as Sor very frequently does when playing in this key / you can produce a whole octave with the exception of the fourth note from

<sup>33</sup> See Chapter 4.1, 109-114.

the tonic or 6<sup>th</sup> which however can be given by double stopping in the manner done on the violin will give you the scale in F.<sup>34</sup>

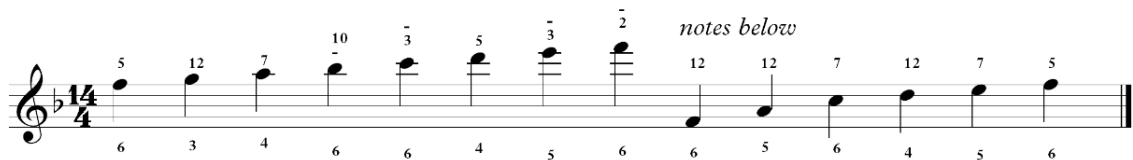
This scordatura that 'Sor very frequently does' may not have been so frequent.<sup>35</sup>

Hudleston then presents a two octave scale in F.

### Musical Example 31

Scale in F, from 'A Treatise of Harmonic Sounds', 30.

DVD Track 15.



Hudleston then explains how he executes the fourth and fifth degree of the scale. The B b by creating a violin style harmonic with the left hand fretting the fifth (which is now a B b due to the scordatura) and touching the string at a fourth above (10<sup>th</sup> fret). The high C is created with a 3<sup>rd</sup> fret harmonic 'or rather a little below'.<sup>36</sup>

Hudleston then discusses the issue of double stops and where they lie now with the altered bass string. He gives a scale of thirds followed by a short exercise of his own composition. 'I have never met with a whole tune in harmonics in the key of F so in order to show how exactly it can be played I shall now introduce one of the first

<sup>34</sup> Hudleston, 'A Treatise of Harmonic Sounds', 30.

<sup>35</sup> See chapter 2.5, 43-47.

<sup>36</sup> Hudleston, 'A Treatise of Harmonic Sounds', 30..

melodies'.<sup>37</sup>

### Musical Example 32

Exercise in F. from 'A Treatise of Harmonic Sounds', 31.

The image shows two musical staves. The top staff is a treble clef with a key signature of one flat (F major) and a 2/4 time signature. It contains a sequence of chords and notes with various fingerings indicated by numbers 1-5. The bottom staff is also a treble clef with a key signature of one flat and a 2/4 time signature. It contains a sequence of notes with fingerings and a 'slow' marking. There are two vertical blocks of text: one on the left side of the top staff and one on the right side of the bottom staff.

*As it is impossible to reach from 5th to 12th fret with the 1st & 4th fingers I make the F or 5th line with the thumb as they bar on the cello I then can reach with 4th finger the 12th fret of the A. string for the 6th below or A.*

*An exercise*

*The F must be double stopped as on violin as before*

He again reiterates his violin technique method to make the B  $\flat$  and also the 3<sup>rd</sup> fret harmonic for the high C in order to play the musical examples. With the caveat 'you may substitute at the third 3<sup>rd</sup> fret of the 6<sup>th</sup> string for the B  $\flat$  if you find this double stop difficult, I don't find it so because the air should be played slow.'<sup>38</sup>

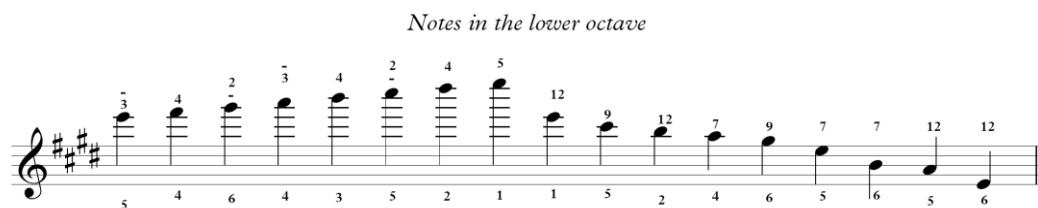
Hudleston again claims the merits of his 2<sup>nd</sup> fret harmonic on the 5<sup>th</sup> and 6<sup>th</sup> strings and gives the scale of E major.

<sup>37</sup> Ibid., 31.

<sup>38</sup> Ibid., 31.

### Musical Example 33

Scale in E, from 'A Treatise of Harmonic Sounds', 31.



### 3.16 Harmonic tables

In the first page of his letter to Ottley, Hudleston refers to the inclusion of tables of harmonics in the various treatises as something of a negative or at least he comments that in his opinion there was not enough information on harmonic techniques.

I resolved upon writing the following little treatise on the subject – for it appeared to that the most eminent guitarists had not gone so deeply into the matter as they might have done – Instead of merely giving the harmonic sounds in a table – I thought I could enable you to acquire a perfect knowledge of the harmonics in a more pleasing way by giving a few pretty airs in the harmonic sounds in the most effective keys – occasionally throwing out such remarks and giving such explanation as might be found useful<sup>39</sup>

Later in the treatise he outlines that he does not intend to include such a table of harmonics and that the existing ones are more than adequate. 'I have omitted giving a table of the harmonic sounds as every guitarist should have Carulli's method – Aguado's excellent instructions and Sor's admirable treatise.'<sup>40</sup>

---

<sup>39</sup> Ibid., 1.

<sup>40</sup> Ibid., 33.

He then contradicts himself by including a table. This could be seen as an effort to excuse himself for essentially recreating a table from another source, although similar, it is not a direct copy of any of the tables that appear in his collection or the methods that he had access to. ‘However as I wish to make my little work as complete as I can, I save you the trouble of referring to the above mentioned works I will here give the table of harmonic sounds of every string’.<sup>41</sup>

Examining the various tables from the methods in question gives us a useful insight into how interested Hudleston’s contemporaries were in the subject of harmonics and how far they were willing to stretch the technique. But firstly Hudleston’s own table must be examined.

---

<sup>41</sup> Ibid, 34.

Figure 8

Hudleston's Harmonic Table, from 'A Treatise of Harmonic Sounds', 35.



















*Table of harmonic sounds*  
*N.B. the harmonics sound an octave higher than written here*

	12th fret	7th fret	5th fret	4th frets	3rd frets <i>little below</i>
<i>chanterelle</i>					
<i>Second string</i>					
<i>Third string</i>					
<i>Fourth string</i>					
<i>Fifth string</i>					
<i>Sixth string</i>					



Figure 8.

Continued

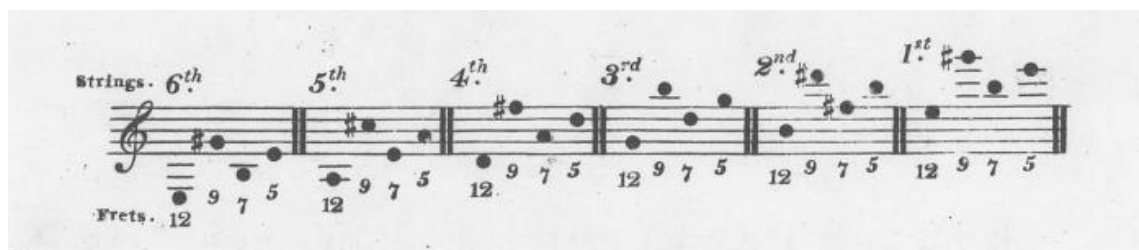
<p><i>5th above 3rd fret, never used</i></p> 	<p><i>A little below 2nd fret, never used</i></p> 	<p><i>At 2nd fret, never used</i></p> 
<p><i>never used</i></p> 	<p><i>never required</i></p> 	<p><i>never used</i></p> 
<p><i>never used</i></p> 	<p><i>never used</i></p> 	<p><i>never used</i></p> 
<p><i>useful</i></p> 	<p><i>I find this note comes more clearly than it does on the G string 3rd fret</i></p> 	<p><i>never required or you have it on the 1st string at 5th fret</i></p> 
<p><i>seldom if ever used as you have it on the g string 5th fret</i></p> 	<p><i>not required, as you have it on the 4th string 3.-</i></p> 	<p><i>never required to be made in this way as the B. is made.- on three other strings viz: at 7th fret of 1st string at 5th fret of 2nd strings and at 4th fret of 3rd string</i></p> 
<p><i>seldom if ever made this way as you have this D on the D string at 5th fret and also on G string 4th fret</i></p> 	<p><i>seldom if ever made this way but either on 5th string at 3rd fret or on the 1st string at 12th fret</i></p> 	<p><i>Not required to be made this way as it is better when made on 4th string 4th fret or on 2nd string at 7th fret.-</i></p> 

What is perhaps most interesting about Hudleston's table and his approach in general is that he includes harmonics that are 'never used'. He particularly warns about the 2<sup>nd</sup> fret harmonic which he claims as his own invention. It very well may have been, or at least Hudleston himself seems unaware of any other guitarist using it and it does not appear in any of the following tables that are reproduced from his collection in his musical examples. It does, however, appear in the 1843 method of Aguado but Hudleston's treatise predates that by three years and this method is not part of Hudleston's collection. The only Aguado method found in Hudleston's collection is the 1828 method, aimed at the beginner. There are also references to it in the Pratten (c1830) and the Sor method (1832).

The various tables that are included in the methods from the Hudleston collection will now be examined or in some cases the absence of such a table will be noted. In his 1828 method, Aguado is concise and gives, by his own admission, just the basics in terms of harmonics.

Figure 9

Aguado's Harmonic Table, from 'The Guitar Taught by a Simple Method' 34.



Aguado is giving the main natural harmonics of the 12<sup>th</sup>, 9<sup>th</sup>, 7<sup>th</sup> and 5<sup>th</sup> fret and that

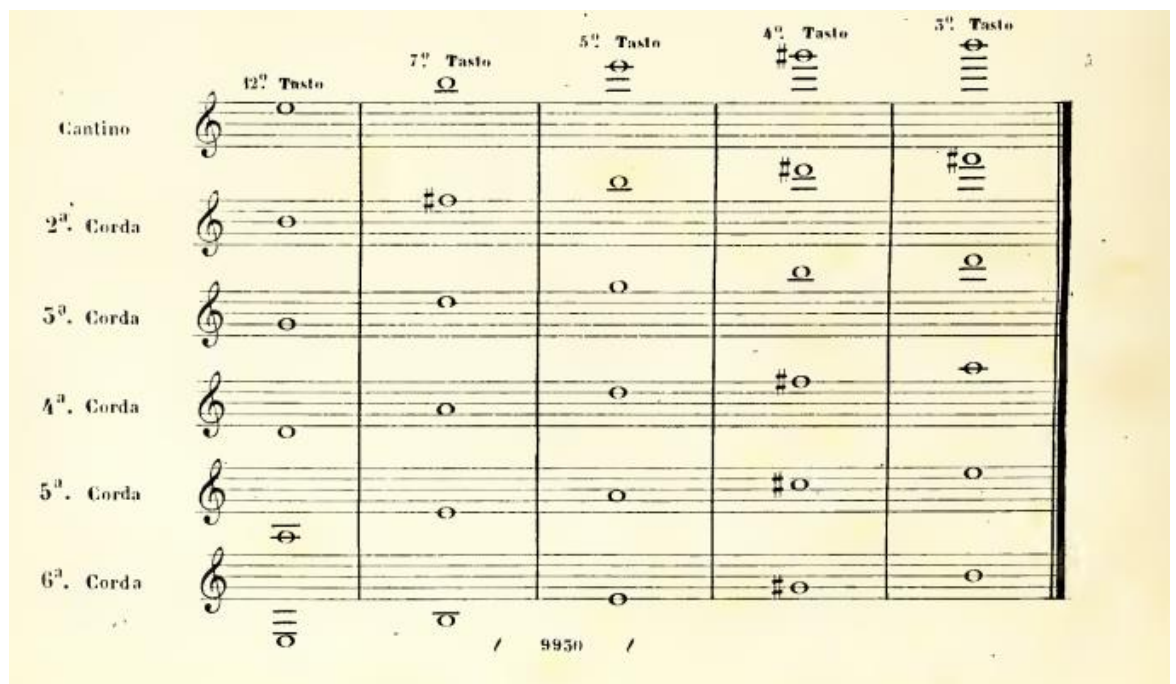
is all.

Carulli's table on the other hand is very similar to Hudleston's, or at least the first page. Carulli does not give any indication for artificial harmonics although he does add the 4<sup>th</sup> and 3<sup>rd</sup> frets. Despite Hudleston's insistence that Carulli was unaware of the possibility of ninth fret harmonics.

There follows an extract from Carulli opus 60 on the air J'aime les fillettes with his scale of the sounds on which I have only to observe that I should take the C on the 9th fret of the A string instead of the 4th. He does not appear to be aware of the fact that the same harmonic sounds that are made at the fourth fret are made also at the ninth – where it is often indeed more convenient to make than at the fourth fret.–<sup>42</sup>

Figure 10

Carulli's Harmonic Table, from *Guittare-Schule*, 38.



<sup>42</sup> Ibid., 9.

There is no harmonic table in Anthony Brown's book, just an outline of a scale. Sor, however, includes an in-depth table but it takes a different format to the others and rather than being included within the text it is on a plate in the appendix.

Figure 11

Sor's Harmonic Table, from *Method for the Spanish Guitar*, 75, plate XXI.

**A TABLE OF HARMONIC SOUNDS.**

Ex: 75.

The image shows a musical score titled "A TABLE OF HARMONIC SOUNDS." It is labeled "Ex: 75." and consists of six staves of music. The first five staves are labeled "6th String.", "5th String.", "4th String.", "3rd String.", and "2nd String." respectively. The sixth staff is labeled "1st String." and "Summary." Each staff shows a sequence of notes with corresponding fret numbers written below them. The notes are mostly whole notes, and the fret numbers range from 12 down to 2. The 6th string staff has a sharp sign (#) above the first note. The 5th string staff has a sharp sign (#) above the first note. The 4th string staff has a sharp sign (#) above the first note. The 3rd string staff has a sharp sign (#) above the first note. The 2nd string staff has a sharp sign (#) above the first note. The 1st string staff has a sharp sign (#) above the first note. The summary staff shows a sequence of notes with sharp signs (#) above them, representing the harmonic sounds across all strings.

Sor includes the very high harmonics all the way to the second fret, but also acknowledges that they are not so practical to use. His note in the text explains the table

I formed myself the table represented by example 75, plate XXI, and I saw how many harmonic sounds I could arrange by the common method. As some of the are almost inappreciable, I have avoided them as much as possible in my compositions; and, seeing that it was impossible for me to execute them with rapidity, in a passage of melody, without my performance bearing too conspicuously the seal of difficulty, I

extended my views towards the combinations of harmony.

When I play a key the next to that of the sixth string, I tune it up or down to the tonic, or key-note, and then the harmonic sounds, preserving their relations with the generating sound, should yield precedence in regard to those of the other strings, and I find the in D or F the sounds indicated in example 76 and 77.<sup>43</sup>

The table from the Kirkmann method seems to have been of particular interest to Hudleston, he has taken the time to mark the margin, writing 'harmoniques' next to it.

Figure 12

Kirkmann's Harmonic Table, *Method*, 22.



Kirkmann's table differs from the others, including Hudleston's, in that it deals with each fret rather than each string. Perhaps Hudleston considered including a similar method of annotating the harmonics and then discarded it in favour of his above and below the staff system which he used in his treatise.

Ferdinand Pelzar's method contains no harmonic table or harmonic explanation, Catharina Pratten, his daughter, on the other hand has the most comprehensive harmonic table of any of the methods in Hudleston's collection. Covering artificial and natural harmonics, the table of artificial harmonics is the only table of its kind in

<sup>43</sup> Fernando Sor, *Method for the Spanish Guitar, A complete reprint of the 1832 English Translation* (London: Tecla Editions, 1995, 2003).

any of the methods in Hudleston's collection.<sup>44</sup>

Figure 13

Pratten's Natural Harmonic Table, from *Guitar School*, 67.

**TABLE OF HARMONICS.**

DIAGRAM 3.		E. A. D. G. B. E.					DIAGRAM 4.		E. A. D. G. B. E.				
6th String lowered to		These harmonics are written an octave lower than they sound on the Guitar.* See N <sup>o</sup> 218.					Showing the actual harmonic sounds as they are on the Guitar.* to illustrate Example N <sup>o</sup> 221.						
1st Fret						1st Fret							
2nd						2nd							
3rd						3rd							
4th						4th							
5th						5th							
6th						6th							
7th						7th							
8th						8th							
9th						9th							
10th						10th							
11th						11th							
12th						12th							

*It will be observed that the 4th & 9th frets produce the same sounds, therefore the 4th will be used in conjunction with the 5th & 3rd and the 8th with the 7th & 12th frets.*

*Handwritten notes on the right side of Diagram 4:*  
C#4  
D#4  
E4  
F#4  
G4  
A4  
B4  
C#5  
D#5  
E5  
F#5  
G5  
A5  
B5  
C#6  
D#6  
E6  
F#6  
G6  
A6  
B6  
C#7  
D#7  
E7  
F#7  
G7  
A7  
B7  
C#8  
D#8  
E8  
F#8  
G8  
A8  
B8  
C#9  
D#9  
E9  
F#9  
G9  
A9  
B9  
C#10  
D#10  
E10  
F#10  
G10  
A10  
B10  
C#11  
D#11  
E11  
F#11  
G11  
A11  
B11  
C#12  
D#12  
E12  
F#12  
G12  
A12  
B12

<sup>44</sup> Ferdinand Pelzar, *One Hundred and Fifty Exercises for Acquiring a Facility of Performance upon the Spanish Guitar* (London: n.p., 1836).

Pratten's use of the fingerboard diagram is really quite unique and it certainly would have served well to simplify some of Hudleston's explanations on position. Her inclusion of a table of artificial harmonics is also noteworthy.

Figure 14

Pratten's Artificial Harmonic Table, from *Guitar School*,69.

The diagram, titled "DIAGRAM 5. E. A. D. G. B. E.", shows a vertical grid representing the guitar fingerboard. The top row is labeled with the strings: E, A, D, G, B, E. The left side is labeled with fret numbers: 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th. The grid contains various notes and symbols, including a large circle around the 12th fret area. To the right of the diagram are two musical examples, "EXAMPLE F." and "EXAMPLE G.", each consisting of five staves of music. Below the diagram, there are instructions: "For the open string the Thumb must touch the" and "For the 1st FRET the thumb must touch the". At the bottom left, it says "M. W. S. PRATTEN'S Guitar School."

### 3.17 Multiple positions

Before detailing his harmonic table Hudleston revises the option of 4<sup>th</sup> fret harmonics at the 9<sup>th</sup> and vice versa based on convenience. He recommends only the wound strings of E, A and D and reminds us that these sound the octave above the 4<sup>th</sup> or 9<sup>th</sup> fret harmonic of a given string. However, he writes that the 2<sup>nd</sup> fret harmonic should only be used on the 5<sup>th</sup> and 6<sup>th</sup> string as the pitch produced on the 4<sup>th</sup> string can be more easily obtained on the 3<sup>rd</sup> fret of the 2<sup>nd</sup> string.

Returning to the harmonic table he explains that any string can produce a total of eight harmonic sounds. He gives the D string as an example

Taking the D string for example you have at the twelfth fret the octave to the open string viz D at the ninth fret the tenth, or major third F sharp at the seventh double fifth A at the fifth the double octave D at the fourth the double major third F # / same note as ninth fret / a little below the third the triple fifth A a little above the same the triple minor 7<sup>th</sup> Below the second the triple octave on the second fret the triple ninth E it is obvious too that the harmonics at the fifth fret are one octave above those at the 12<sup>th</sup> fret and after that the harmonic sounds made a little below the third fret are one octave.<sup>45</sup>

Hudleston then refers to Sor in relation to multiple positions for the same note.

It also appears from the table above given that there are several places where you can find the same note you can / as Sor remarks in his treatise p35 / takes advantage of this circumstance to play in two or even three parts in harmonics.<sup>46</sup>

Hudleston gives a written-out example but it is subsequently explained in the table which follows the text.

for example the A is made sometimes at the seventh fret of the 4<sup>th</sup> string & sometimes at the 5<sup>th</sup>

---

<sup>45</sup> Ibid., 36.

<sup>46</sup> Ibid., 36.



fret of the fifth string. The C# is made too in two ways viz either at the ninth or 4<sup>th</sup> fret of the 5<sup>th</sup> string and this E is likewise made usually in two ways viz. either at the 12<sup>th</sup> fret of the 1<sup>st</sup> string or a little below the third fret of the 5<sup>th</sup> string this chord you can make in harmonics thus the first finger placed lightly over the 7<sup>th</sup> fret of the 4<sup>th</sup> string gives the A then the second finger placed over the ninth fret of the 5<sup>th</sup> string gives C# and the fourth finger placed over the 12<sup>th</sup> fret of the first string gives the E in the following inversion of the chord of A in harmonic sounds the G# must be made at the 4<sup>th</sup> fret of the fifth string as the upper A us made a little below the 3<sup>rd</sup> fret of the D. 4<sup>th</sup> string by playing the first finger there pressing the 2<sup>nd</sup> finger at the 4<sup>th</sup> fret of the A string for the C# and the E is made at the 5<sup>th</sup> fret of the sixth string with the third finger.<sup>47</sup>

The table that follows shows all the options for creating the same pitches in a more straightforward way. These are intended to give multiple options rather than a fixed set of instructions such as his previous explanation.

---

<sup>47</sup> Ibid., 37.

Figure 15

Table of Enharmonic Equivalents, from 'A Treatise of Harmonic Sounds' 39.

The figure displays two columns of musical notation, each with five staves. Each staff shows a single note on a five-line staff with a treble clef. The notes are enharmonic equivalents of each other. The left column shows notes for 'Chanterelle', '2nd Corde', '3rd Corde', '4th Corde', and '5th Corde'. The right column shows notes for '3rd Corde', '4th Corde', '2nd Corde', '4th Corde', and '5th Corde'. The notes are labeled with their respective frets: 7th touche, 5th touche, 4th touche, 7th touche, 5th touche, 7th touche, 4th touche, 7th touche, 5th touche, 12th touche, 3rd touche, 7th touche, 5th touche, and 3rd touche, a little below 3rd fret.

String	Fret	String	Fret
Chanterelle	7th touche	3rd Corde	7th touche
2nd Corde	5th touche	4th Corde	5th touche
3rd Corde	4th touche	2nd Corde	7th touche
4th Corde	7th touche	4th Corde	4th touche
5th Corde	5th touche	2nd Corde	12th touche
chanterelle	12th touche	6th Corde	3rd touche, a little below 3rd fret
5th Corde	3rd touche	5th Corde	7th touche
		6th Corde	5th touche

Hudleston continues with these position options and reiterates his opinion on Carulli's method. 'I have before observed that the same harmonic sounds made at the 4<sup>th</sup> frets can also be made at the ninth fret a circumstance quite overlooked by Carulli in his table at page 35 of his first instruction book'. He then explains the relation of the 7<sup>th</sup> fret harmonics to their ordinary pitch (fully pressed down rather than harmonics) as sounding one octave higher and similarly the 4<sup>th</sup> fret harmonics produce the same relationship but at a double octave above the ordinary notes. He also explains that a sequence of 5<sup>th</sup>, 4<sup>th</sup> and 3<sup>rd</sup> fret harmonics on any given string will give an arpeggio of root, third, fifth.

Hudleston again states that left hand fingers are never given, only the strings and frets. He then presents the example of an E major chord with the following explanation.

'This Chord I should make thus, my first finger over the seventh fret of other 5<sup>th</sup> string giving me this E I then place my second finger over the ninth fret of the sixth string for the G#, I then place my fourth finger over the 12<sup>th</sup> frets of the 2<sup>nd</sup> and 1<sup>st</sup> strings which gives me the B and E above'.<sup>48</sup>

Hudleston concludes this section with the following important advice regarding strings and position choice.

I have only one more remarke to make & that is that the harmonic sounds on the silver strings are much sweeter and fuller than those made on the cat gut strings for instance this D has a better effect when made on the fourth string at fifth fret that when made at the seventh fret of the third string.<sup>49</sup>

---

<sup>48</sup> Ibid., 39.

<sup>49</sup> Ibid., 40.

### **3.18 Summary**

There is an impressive level of depth in Hudleston's treatise. There really are no elements of harmonic technique left unmentioned. However, by referring to the methods within his collection it has been shown that his ideas are not as original as he claims. There are no new techniques in his treatise, even the most obscure ideas, such as the 2<sup>nd</sup> fret harmonic are mentioned in the methods of Pratten and Sor. There is no question that Hudleston has brought these techniques further by explaining them in detail and providing musical examples, exercises and pieces.

It is clearly shown that Hudleston's treatise was the result of a detailed research and analysis of all the information that was available to him. Some elements are unclear in regard to how much first-hand experience he had with some of the principal guitarists that he mentions. For example, in the case of Sor, initial reading of the treatise would give the impression that Hudleston was acquainted with Sor. However, after examining the treatise and comparing it with Sor's method it can be seen that every reference to Sor that is presented in the treatise can be tracked back to the method. In this case it would seem unlikely that the pair had ever met.

## Chapter 4

### Extended Techniques

#### 4.1 Ultra-High Harmonics

Perhaps the most surprising element of Hudleston's treatise is the inclusion of ultra-high harmonics achieved at the third and even second fret. These are very unusual, at least in a tonal context, they often occur in contemporary guitar music but usually as special effects. Not a single known piece of guitar music from the nineteenth century utilises a harmonic at the second fret other than some of the arrangements of Hudleston himself. Hudleston first gives this example of the third fret harmonics as a note before his arrangement of *Auld Lang Syne* entirely in harmonics.

*N.B. a dash under the number 3. denotes that the harmonic is made a little above the 3<sup>rd</sup> fret and a dash above the number 3 means a little below the fret for instance A made a little below the 3<sup>rd</sup> fret but C a little above the 3<sup>rd</sup> fret as no harmonic is made at the 3<sup>rd</sup> fret exactly but a little below or a little above I shall more conclude with the harmonics in G by giving an example of two Airs played in harmonics in this key –<sup>1</sup>*

These third fret harmonics, although unusual, are not that surprising. It is the use of the second fret that really separates him from any of his peers. He mentions it for the first time in the notes on his scale of G. In this case it is in relation to an F# intended for the second string on the third fret (an already difficult harmonic to sound).

Hudleston notes in a vertical text that 'this can also be a made a little above 2<sup>nd</sup> fret of the re' according to my recent discovery'.<sup>2</sup>

In a similar table for the scale of D, Hudleston cautions against the overuse of these ultra-high harmonics. Again it is a note in the vertical text.


---

<sup>1</sup> Josiah Hudleston, 'A Treatise of Harmonic Sounds', undated manuscript of 178 pages, Royal Irish Academy of Music, H.MS.III. (unpublished, c.1840), 35.

<sup>2</sup> Ibid., 7.

All the nineteen sounds come out as clearly as possible I could have intended the scale two notes higher, by giving the G in altissimo a little below the 2<sup>nd</sup> fret of the sol and the A in at the second fret of the sol but that is inadvisable to take harmonics on the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> strings higher than those made a little below the 3<sup>rd</sup> frets as they will not sound clearly as do all that can be made on the 4<sup>th</sup>, 5<sup>th</sup> and sixth string.<sup>3</sup>

It is on page nine of the treatise that the first explanation is given of Hudleston's new discovery:

This movement of Rossini I consider an excellent study for it brings in thirds sixths and octaves and the new harmonic sounds I discovered viz the one made a little above the 2<sup>nd</sup> fret or the octave to the harmonic made at the 4<sup>th</sup> fret of the 5<sup>th</sup> string being the C#  enables me to introduce the upper octave just as it is written for the piano forte, I find no guitar give the harmonics so distinctly and full as Sor's guitar.

The note on Sor's guitar is surely a reference to the difficulty of producing these high harmonics with any degree of clarity. This is perhaps the underlying problem with these types of harmonics as recognised by Aguado in his 1943 method.

The diagram in plate 7 contains all the harmonics which can be played on the guitar up to the twelfth fret, since between here and the bridge there are as many more spaces at proportionally equal distances. But not all have the same quality; those of the bass strings, especially if these are new, are clearer than those of the upper strings, where the five highest are hardly audible, including that corresponding to the seventh of the key, which is out of tune on all strings.<sup>4</sup>

Aguado is referring to the seventh produced by a harmonic on the second fret. He is alone amongst Hudleston's contemporaries in acknowledging the existence of these ultra-high harmonics. But it does not seem Hudleston had a copy of Aguado's final

---

<sup>3</sup> Ibid., 13.

<sup>4</sup> Dionisio Aguado, *A New Guitar Method*, trans. Brian Jeffery (London: Tecla Editions, 1981), 51.

method and Hudleston's treatise predates Aguado's book.<sup>5</sup>

Hudleston himself is aware of the difficulties involved with these ultra-high harmonics and he acknowledges that they should only be attempted on the wound bass strings.

In addition to all the harmonics above given recently discovered another harmonic in the 4<sup>th</sup> 5<sup>th</sup> and 6<sup>th</sup> strings which is made by putting the finger a little above the 2<sup>nd</sup> frets it gives the octave above the harmonic made at 4<sup>th</sup> frets but never use them excepting on the 5<sup>th</sup> and 6<sup>th</sup> strings as the one on the 4<sup>th</sup> string you have on the 2<sup>nd</sup> string at the 3<sup>rd</sup> fret. The notes I have found useful are these two and the former is made a little above the 2<sup>nd</sup> fret and the latter on the sixth string at the same place.<sup>6</sup>

However, despite these difficulties Hudleston employs them throughout the treatise and it would seem he had surmounted the challenges involved.

What makes these ultra-high harmonics so challenging is the extremely short section of string that vibrates. When a 2<sup>nd</sup> fret harmonic is played the portion between the node on which the harmonic is created and the bridge is only around four centimetres on a modern guitar, even less on the guitars of Hudleston's time. In addition the node itself, the exact point where the string must be lightly pressed, is also extremely small. The nodal point is then smaller than the fingertip that is trying to achieve it. In this way the decreasing of the node size is very similar to the decrease of the fret size as the guitar goes higher. In fact it mirrors this phenomenon. In figure 16 an imaginary fretboard is shown. This 'virtual' fretboard extends to the extreme of seventy-two frets and shows how small these ultra-high frets would have to be if it

---

<sup>5</sup> See chapter 2.7, 48-52.

<sup>6</sup> Hudleston, 'A Treatise of Harmonic Sounds', 36.

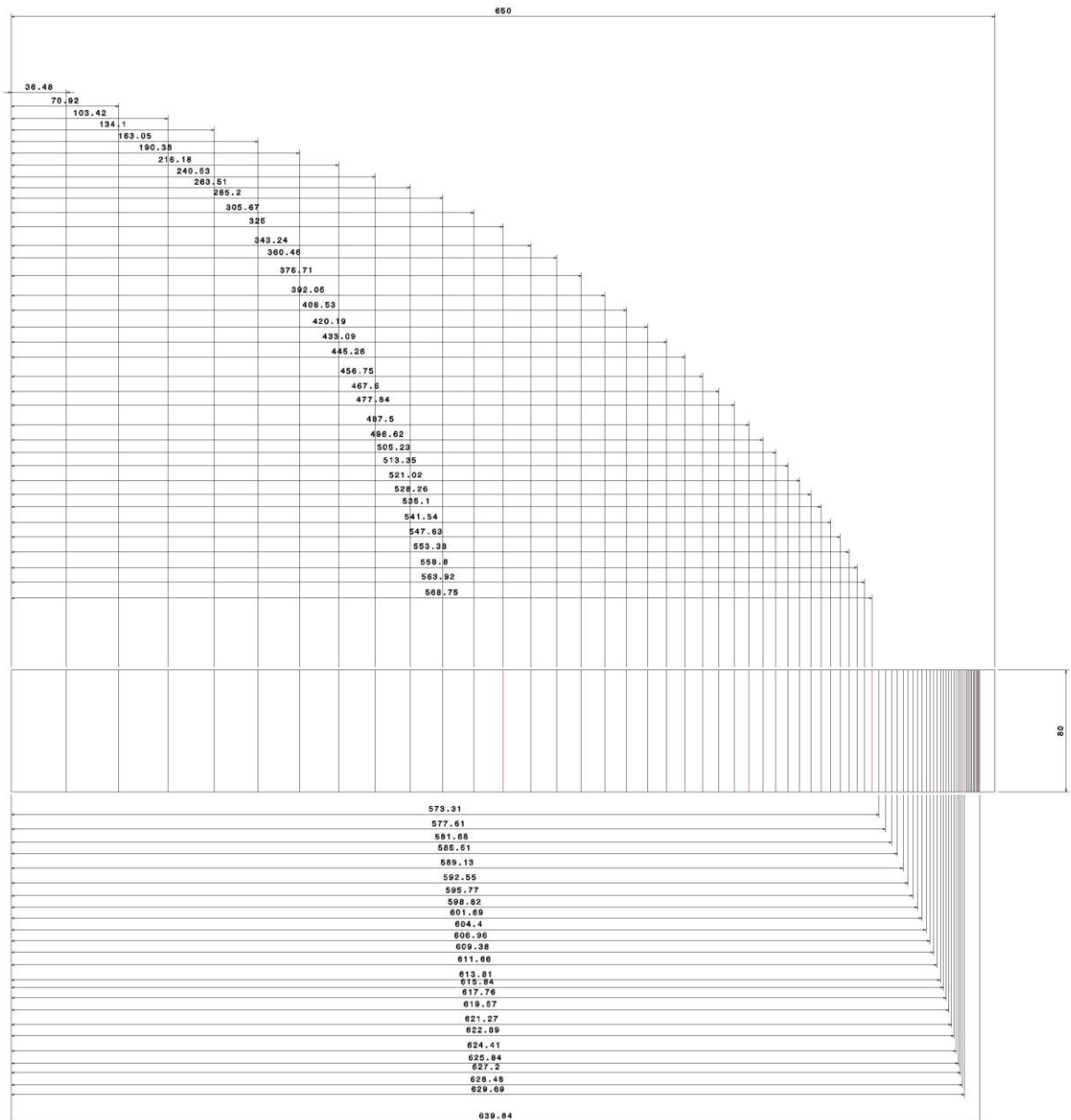
were possible to play that high on the fretboard (the issue being that it would be impossible to actually pluck the string in these high positions). This seventy-two fret fingerboard is an example of how the frets might look were it possible to play all the way to the bridge.<sup>7</sup>

---

<sup>7</sup> The diagram was calculated to scale using the 'rule of eighteen'. Dividing the scale length by 18 (17.817) gives each subsequent fret width as it progresses along the fingerboard.



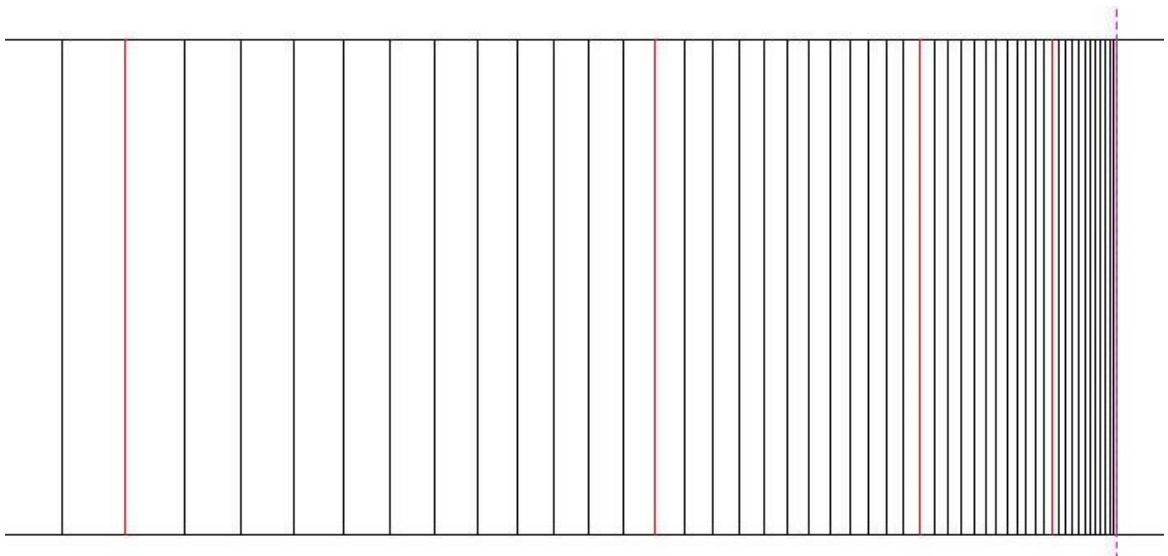
Figure 16. 72 Fret Fingerboard



In figure 16 the fretboards have been calculated for a modern sixty-five centimetre scale length instrument. The octaves are included in red. It can be seen that in the ultra-high areas the frets are incredibly close together. It is this fact that enables players to make ‘pick squeals’ with the flesh of the thumb held closely to a plectrum. There are so many nodes in these high areas of the string that the edge of the thumb is virtually guaranteed to hit one of them.

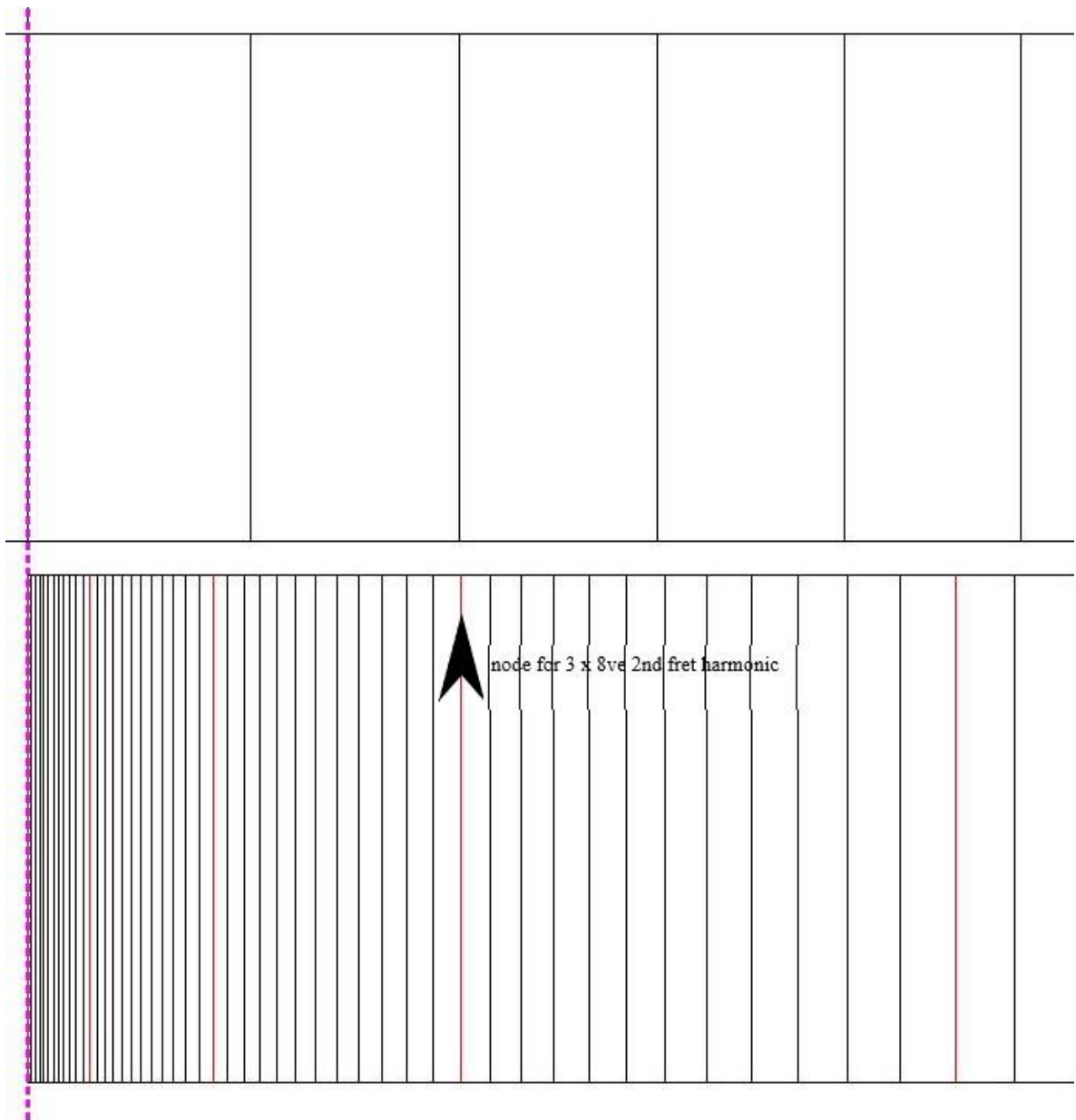
When the upper five octaves are magnified we start to see just how many ‘frets’ occur in this area of only around ten centimetres.

Figure 17. Upper Five Octaves



When this really starts to be relevant is when the diagram is reversed. This then shows where the nodes occur in the first few frets of the guitar. When harmonics are being created the frets themselves have no role in the creation of the sound, they serve only as a visual guide for the player. In a way the frets actually begin to make the task more difficult when harmonics are being created around the second and third fret. For example, Hudleston is often using two variants in the third fret, one a little above and one a little below. In figure 17 it can be seen just how many nodes are possible in the first three frets.

Figure 18. Node Comparison



In figure 17 the upper part represents the first five frets and the lower part the equivalent upper part of the virtual fretboard, but inverted. The octaves are indicated by the purple lines. In the case of the 2<sup>nd</sup> fret harmonic (indicated by the arrow) there are three octaves between the nut (on the left) and the node, therefore the harmonic created at that point will be three octaves higher than the open string. This logic can be followed to uncover the other main nodal points such as the fifth and third to explain the numerous ultra-high harmonics within the first few frets.

## 4.2 Artificial Harmonics

Hudleston mentions the modern artificial harmonic at the outset of his treatise in relation to sounding the note C as part of this initial scale in G. In that case he preferred the option of the violin style technique. Towards the end of his treatise he enters into some more detail about the artificial harmonic it is known today. He again references Sor in his explanation:

There is another method of producing harmonic sounds which enables you to make the notes harmonic which could not be done in the usual way but the mode is only suited to slow passages and you can only produce one note at a time – it consists in determining the half of every length of string between the point which was to produce the sound and the bridge by a finger of the same hand that attacked the string, whilst the other hand is employed in fingering the notes of which the harmonics yield the octaves above, for example this C is thus made harmonic. Stop it in the usual way on the second string with the first finger of the right hand over the 13th fret which is the half of the string to consequently the octave you then pull the string with the thumb of the right hand well stretched behind the finger – but this method besides imposing the double task of being obliged to measure very accurately the distance for both hands, involved the inconvenience of being forced to employ the whole of the right hand to play a simple note and every harmonic you wish to produce cost only the motion of the wrist but of the whole arm too and (as Sor observes in his treatise p34) having no point to support, it was nearly impossible for me to direct my finger with certainty exactly to the middle point of every distance, Sor afterwards observed / see page 35 / that the violin method is more promising.<sup>8</sup>

Hudleston acknowledges that there are sometimes practical reasons to resort to this method and sets out some scales that he recommends for practice (Musical Example 34).

---

<sup>8</sup> Hudleston, 'A Treatise of Harmonic Sounds', 40.

Musical Example 34. Artificial Harmonic Scale, Hudleston, from ‘A Treatise of Harmonic Sounds’, 41.



Hudleston endorses the use of the thumb of the right hand with an extended index finger and notes the difficulty in finding the exact point for the index finger to touch once the player goes beyond the fretboard and the frets no longer give a reference point.

The great harpist Bochsa in his novel effects certainly produces harmonics on the same string as we do on the guitar but conceive the enormous difficulty of determining alignment with certainty the parts of a string where harmonics are made when there are no frets to guide the eye and this enables you to touch the point with certainty<sup>9</sup>

Generally, however, over the course of his treatise Hudleston does not seem convinced about artificial harmonics as a practical solution. His rebuttal of the artificial harmonic technique is perhaps the most surprising element of his treatise to the guitarists of today. Artificial harmonics, created with the right hand, have been the standard method of producing harmonics since the early twentieth century. It is extremely rare to see anything like the complex natural harmonics found on the third or even second fret that Hudleston recommends. Even the simpler ninth or fourth fret harmonics are rare. The usual technique is the artificial harmonic and the higher pitched natural harmonics tend to be the domain of special effects and sonorities

<sup>9</sup> Ibid., 42. Hudleston had the Bochsa harp method in his collection. See chapter 4.3, 120.

found commonly in contemporary music.

There are a number of factors that may have led to this. Firstly the development of the guitar to incorporate more frets, going right up to the nineteenth fret as standard.<sup>10</sup> This has created a guide for the right hand during an artificial harmonic that did not exist on the nineteenth-century guitar in the high positions, the romantic guitars had little call for frets in the high positions beyond the twelfth. However, even without these guides most professional guitarists can easily find the position even over the sound hole in areas with no reference point. It does not seem to be an insurmountable challenge for most guitarists. This preference may have been to avoid intonation problems associated with the ‘on string’ harmonics as pointed out by Aguado in his method and others.<sup>11</sup>

The advice from Sor’s method is outlined here.

It consisted in determining the half of every length of string between the point which was to produce the sound and the bridge, by a finger of the same hand that attaches the string, whilst the other hand is employed in fingering the notes of which the harmonics yield the octave above. Besides the double task which was imposed on me, in being obliged to measure very accurately the distance for both hands, I found the inconvenience of being forced to employ the whole of the right hand to play a single note, and that every harmonic I wished to produce, not only cost me a motion of the wrist, but of the whole arm too, and having no point of support, it was nearly impossible for me to direct my finger with certainty exactly to the middle point of every distance. At first I attributed this to a want of practice, but some time afterwards, I requested the person who had communicated the discovery to me, and who said that he used it with advantage, to play me some passages in this way. I observed that he experienced the same difficulties that I did, that he played very slowly, and that the pressed string discontinuing its vibrations sooner than the open string, the harmonic sound produced by this method was less

---

<sup>10</sup> The classical guitar is now commonly available with twenty frets, incorporating a high C.

<sup>11</sup> See chapter 2.1, 26.

sonorous.<sup>12</sup>

It would be of particular interest to know who demonstrated this technique to Sor. It may even have been François De Fossa, considering it was he who was accredited with its invention by Aguado and may even have contributed to the section of harmonics in Aguado's 1843 method.<sup>13</sup> At this point it is impossible to say with any certainty. But it is clear that Hudleston favoured the same method as Sor, opting for the violin technique over the artificial harmonic in most cases.

Hudleston gives one case for the artificial harmonic in relation to the scale of A major:

You perceive there are two notes wanting to complete the scale viz. the third or low C#  
And the sixth of this f# there could be made however by the process I before described of  
double stopping with both hands – that is to say dividing the string in half thus stop this C#  
on the 5<sup>th</sup> string in the ordinary way and at the same time lightly put the first finger of the right  
hand over the 16<sup>th</sup> fret you have the octave. In like manner in the F# made on the D string. –<sup>14</sup>

For the most part the other methods and treatises in Hudleston's collection agree with the general disregard of the artificial harmonic. It is only in Aguado's final method, which Hudleston does not seem to have owned, where the artificial harmonic is taken quite seriously as an option. This really shows that throughout Hudleston's life the guitar technique was continuing to evolve.

Matteo Carcassi's method is one of the exceptions in regards to the question of artificial harmonics in terms of Hudleston's collection but also in general. Carcassi

---

<sup>12</sup> Fernando Sor, *Method for the Spanish Guitar*, , *A complete reprint of the 1832 English Translation* (London: Tecla Editions, 1995, 2003) 34, 35.

<sup>13</sup> See chapter 2.7, 48.

<sup>14</sup> Hudleston, 'A Treatise of Harmonic Sounds', 37.

acknowledges the artificial harmonic in a positive light.

There are also harmonics which can be artificially produced on all the Guitar's frets. To obtain them it is necessary to press well the finger of the left hand in the same way as if it was the question of an ordinary note, the string on the fret five the note which it is desired to render in harmonics, then the tip of the forefinger of the right hand is placed on the string at 12 frets' distance from the note fingered by the left hand and, discarding a little the thumb, the string is struck and it produces the harmonic sound required.<sup>15</sup>

Figure 19

Carcassi's High Harmonics, from *Guitar Method*, 22.

The image shows a musical score for high harmonics on the 6th string. It consists of two staves. The top staff is labeled '6<sup>te</sup> Saite. 6<sup>te</sup> Corde.' and shows notes on the 5<sup>th</sup>, 4<sup>th</sup>, 3<sup>rd</sup>, 2<sup>nd</sup>, and 1<sup>st</sup> frets. The bottom staff is labeled '12<sup>te</sup> Bund. 12<sup>te</sup> Touche.' and shows notes on the 15<sup>th</sup>, 14<sup>th</sup>, 13<sup>th</sup>, and 12<sup>th</sup> frets. To the left of the staves is the German instruction: 'POSITION DER LINKEN HAND. Platz welchen der Zeigefinger der rechten Hand in der Aufeinanderfolge einzunehmen hat.' To the right is the French instruction: 'POSITION DE LA MAIN GAUCHE. Place où doit poser successivement l'index de la main droite.' Below the staves are the labels 'ENDE DES 2<sup>ten</sup> THEILLS.' and 'FIN DE LA 2<sup>me</sup> PARTIE.' with the number '4556' centered below.

However, Carcassi's advice on the artificial harmonic is little more than a footnote and is not required for the musical examples that he sets out afterwards.

Pratten gives a reasonable description and even includes a table of explanation. What is also of interest is that she refers to artificial harmonics quite casually as 'double doigter'. So it would seem not to be such an uncommon technique.

The annexed diagram 5. is to shew how harmonics are produced by double fingering (a double doigter) therefore, if it is desired to hear either of the open strings an octave higher in harmonics, the thumb of the right hand must be placed lightly over the 12th fret in such position as to allow the first finger to strike under, and at least three frets distance from the thumb\_ This will be the exact centre or half length of the strings, and should the first fret be stopped, the octave or half will be found on the 13th fret\_ The 2nd on the 14th\_ the 3rd on 15th

<sup>15</sup> Matteo Carcassi, *Guitar Method* (London: Schott and co., 1836), 56.



and so on.<sup>16</sup>

The diagram is really quite interesting and Pratten's inclusion of this is a far cry from Hudleston or Sor's disregard for the technique.

Thomas Phipps on the other hand does not even mention the artificial harmonic, his short publication and examples function entirely using natural harmonics. Kirkmann and J. A. Nüske do not mention artificial harmonics and Ferdinand Pelzar's exercises also have no necessity for artificial harmonics.

### 4.3 Harp Technique

Prior to his appendix Hudleston signs off on the treatise: he decided later to add the extra section on harp technique.

I have now my friend brought this little treatise to a close, and I cannot but feel convinced after all that I have written on the subject that the guitar is without question the most scientific just invent in the world – August 14<sup>th</sup> 1841.<sup>17</sup>

A further two pages were added to the original document and are dated 16<sup>th</sup> October 1845.<sup>18</sup> These appear to be in Hudleston's own hand and are initialled J. H. He opens with the following explanation.

Since writing this treatise I have heard a Mr Smith produce harmonic sounds on the guitar in a manner that I had never seen before. He made these sounds in the same way that they are done on the harp- viz. By pulling the strings with the first and second fingers of the right hand and at the same time touching lightly with the edge of the right hand the octave above the notes he

---

<sup>16</sup> Catherina Pratten, *Guitar School Madame R. Sidney, née Pelzer, Guitar School ... [etc]* (London: Boosey and Sons, n.d.), 67.

<sup>17</sup> Hudleston, 'A Treatise of Harmonic Sounds', 42.

<sup>18</sup> See appendix A, 175-176.

was stopping in the ordinary way with the left hand fingers.<sup>19</sup>

Hudleston explains that, as is the case with artificial harmonics from early in the treatise, the string is divided in half to produce the upper octave as a harmonic. He recommends the use of the thumb rather than the first or second fingers (i or m) that Mr Smith was using. He then sets out some scales in this ‘fourth mode’ of harmonics with the scordatura of the bass string dropped to D. He concludes with the following statement.

The key of D with sixths being in D as before tried at the commencement of my treatise is the most effective for harmonic sounds as more than two octaves can be played according to the usual method.- so this last or harp method is not necessary to be used when playing in D – in fact I only resorted to (as harp) when playing in G & E.<sup>20</sup>

#### **4.4 Summary**

The three techniques outlined in the final chapter are the most surprising in relation to how the guitar is played today. Hudleston’s ultra-high harmonics never became a ‘normal’ occurrence and have been assigned to the realm of ‘special effects’ most likely due to the difference in timbre as well as intonation that they present. These angular sounds have been embraced by countless composers such as Maurice Ohana, Albert Ginastera, Leo Brouwer and others.

The artificial harmonic has become the first option for creating harmonic sonorities since their invention. This is probably due to their straightforward nature, they are easy to understand and easy to create. They follow the same rules as the regular fretting of notes and avoid the confusion of creating new pitches at frets that were usually associated with unrelated notes. This confusion coupled with the general

---

<sup>19</sup> Hudleston, *A Treatise of Harmonic Sounds*, 43.

<sup>20</sup> *Ibid.*, 42.

difficulties in notating natural harmonics created an environment where the artificial harmonic was the simplest option.

There is no mention of Mr Smith's harp technique in any other source from any period. To actually sound the notes in this way is extremely difficult, the lack of any kind of visual aid to determine the string lengths means that the player is really 'blind' in determining the node for a given harmonic. Hudleston's inclusion of this appendix may not have been part of the original treatise sent to Ottley, but it shows his determination in regard to uncovering every possible aspect of harmonic production on the guitar.

## Conclusion

The discovery of the Hudleston collection at the Royal Irish Academy of Music was an exciting development for historical guitar studies. Hudleston's treatise on harmonics represents a new and interesting source of research that may now take its place as a companion to the methods of Aguado, Sor and Carulli as Hudleston had intended.

Prior to the work of Micheal McCartney Hudleston was completely unknown. His compositions and treatise were essentially lost. The fact that McCartney's work remained unfinished almost thirty years after it had started resulted in Hudleston remaining absent from almost all of the literature and unknown in the general collective consciousness of guitar research and performance.

Hudleston was ignored by a succession of guitar teachers at the RIAM, perhaps put off by the size of the collection, the difficulty presented in deciphering the handwriting or simply unaware of its existence. The research and analysis of his life and works that are presented in this document show without doubt the valuable contribution that Hudleston has made to the history of the guitar.

In the first instance it was Frederico Zcherpel that encouraged Hudleston to write a complete method. Zcherpel's position as organist at St George's Cathedral in Madras makes him a reliable source of opinion on Hudleston's abilities. Hudleston's interactions with Regondi and in particular the dedication of 'Ten Etudes' reinforce the theory that Hudleston was a competent player. Similarly the dedications from Ciebra and Huerta show a high level of involvement in guitar circles. Perhaps further connections between Hudleston and other composers will be unearthed as he

becomes more well known in general.

This dissertation, through intense examination of every aspect of Hudleston's treatise has proven his ideas to be practical and executable on a modern guitar. Seemingly impossible musical examples have been shown as playable by demonstration on the attached audio-visual recordings, albeit with reasonable time spent on these unusual and counter-intuitive techniques. On initial readings of the treatise Hudleston's insistence that 'with a little practice' these harmonics could be realised seemed idealistic. However, with a reasonable amount of preparation his musical examples can be realised.

Within this dissertation Hudleston's treatise has been, for the first time, made available to the public. This has been achieved by the inclusion of the transcription (appendix A) as well as a high-quality photographic facsimile (appendix B). These documents will be made freely available in due course on the RIAM library website. This material along with the critical commentary of this dissertation will give a new level of insight into the performance of harmonics in relation to nineteenth-century guitar.

Hudleston's most surprising technique, the 2<sup>nd</sup> fret and other ultra-high harmonics have been explained for the first time with illustrations that explain the phenomena in an original way.

Harmonics may only make up a minute percentage of notes from the huge oeuvre of nineteenth-century guitar music, but the ingenuity and willingness to experiment that is displayed on every page of Hudleston's treatise shows an artistry and ambition that

should be inspiring to all musicians and will continue to enable musicians to better understand the music they play through informed historical research and experimentation.

Josiah Hudleston is unique in terms of the history of the guitar. Never before has India been considered in relation to the European guitar masters of the nineteenth century. He was a cavalier in regard to the use of harmonics and was technically ambitious in his compositions. Hudleston's treatise demonstrates the curiosity and inventiveness of composers and players of the guitar in the nineteenth-century and his attention to detail underpins the willingness to explore and experiment with colour and timbral variegation that is a defining characteristic of this period. The rediscovery of his work can now encourage the modern performer to pursue bolder and more dynamic performances of guitar music by Hudleston and his contemporaries.

## Bibliography

- Aguado, Dionisio, *The Guitar Taught by a Simple Method, or a Treatise on the Elementary Principles of Playing that Instrument in an Agreeable Manner and in a Very Short Time* (London: R. Cocks and Co., 1823)
- Aguado, Dionisio, *New Guitar Method*, trans. Brian Jeffery (London: Tecla Editions, 1981)
- Bazzotti, Marco, 'The Guitar in Italy in the Nineteenth Century: Sixty Biographies of Italian Composers and Guitarists' <<http://www.ebookcafe.it/zip/800Ebook.en.pdf>> [accessed 7 November, 2018]
- Behan, Thomas Lawrence, *Bulletins and Other State Intelligence*, Part 1, Compiled and arranged from the official documents published in the London gazette, 1855 (Michigan: The University of Michigan, 2007)
- Bochsa, Nicholas Charles, *A new and improved method of instruction for the harp, in which the principles of fingering and the various means of attaining a finished execution on that instrument, are clearly explained and illustrated by numerous examples and exercises* (n.p.: F. T. Latour, 1828)
- Bone, Phillip, *The Guitar and Mandolin: biographies of celebrated players and composers for these instruments* (London: Schott, 1914)
- Brown, Anthony, *A Set of 6 Divertimentos in D, comprising a New System of Natural harmonics, with an Explanatory Scale* (London: Keith, Prowse & Co., c.1820)
- Byrne, Kerry, 'Susanna Eleanora (Wallace) Hudleston (1800 – 1837)' <<https://www.wikitree.com/wiki/Wallace-8071>> [accessed 14 May 2019]
- Button, Stuart, *The Guitar in England, 1800-1924* (New York: Garland, 1989)
- Carcassi, Matteo, *Vollstaendige Gitarre Schule in drei Atheilingun* (Mainz: Schott and sons, n.d.)
- Carcassi, Matteo, *Guitar Method* (London: Schott and co., 1836)
- Carulli, Ferdinando, *Solfèges avec accompagnement de guitare, Op.195* (Paris: n.p., 1822, 1826)
- Carulli, Ferdinando, *L'Harmonie appliquée à la Guitare* (Paris: n.p. 1825)
- Carulli, Ferdinando, *Guitar School*, trans. J.Krempl (London: Universal Editions, n.d.)
- Carulli, Ferdinando, *Metodo Completo per chitarra* (Milan: F. Lucca, 1825)
- Carulli, Ferdinando, *Méthode Complète pour parvenir à pincer la Guitare, par les Moyens les plus simples et les plus faciles, Suivie de 44 Morceaux graduellement progressifs & Six Etudes ... Sixième Édition, Op. 241* (n.p., n.d)

Coelho, Victor Anand, *Performance on Lute, Guitar, and Vihuela: Historical Practice and Modern Interpretation* (Cambridge: Cambridge University Press, 2005)

Cox, Paul Wathen, *Classic guitar technique and its evolution as reflected in the method books, ca. 1770-1850* (Indiana: Indiana University, 1978)

Duvernoy, Frédéric, *Méthode pour le cor; suivi de Duo et de Trio pour cet instrument* (Paris: Rouen Philémon Desroques, n.d)

Eames, James (ed.), *The Idler and Breakfast Table Companion; A New and Fashionable Journal of Literature, Fine Arts, Satire and the Stage* (London: George Denney, 1864)

Eulenstein, Carl, *le Retour de L'Allemagne* (n.p., 1857)

Grundy, Alan, 'Rediscovered Nineteenth Century Guitar Works Found in the archives of the Royal Irish Academy of Music' (MMus dissertation, Maynooth, National University of Ireland, 1992)

Hackl, Stefan, 'Giulio Regondi: A New Source of Music, J.A. Hudleston's Manuscript for Madame Sydney Pratten, Part 1', *Classical Guitar*, Vol. 27, No.1 (2008) 22-27

Hackl, Stefan, 'Giulio Regondi: A New Source of Music, J.A. Hudleston's Manuscript for Madame Sydney Pratten, Part 2', *Classical Guitar*, Vol. 27, No.2 (2008) 18-23

Hartdegen, Kenneth, *Fernando Sor's Theory of Harmony Applied to the Guitar: History, Bibliography and Context* (Auckland: The University of Auckland, 2011)

Heck, Thomas, *Mauro Giuliani: Virtuoso Guitarist and Composer* (Los Angeles: Editions Orphée, 1995).

Holding, Mary, *Anna Maria Antionette Isabel de Jourins Langley aka Ellen*  
<<https://www.wikitree.com/wiki/Langley-3124>> [accessed 16 Mar 2020]

Hudleston, J. A., 'A Treatise of Harmonic Sounds', undated manuscript of 178 pages, Royal Irish Academy of Music, H.MS.III. (unpublished, c1840)

Hudleston, J. A., 'The Hudleston Collection'  
<<https://library.riam.ie/uhtbin/cgiirsi/?ps=twosu60O039/0/X/60/80/X/BLASTOFF>>  
[accessed on 5 July 2019]

Huerta, A. T. A. T. *Huerta (1800-1874): Life and Works*, Javier Suárez-Pajares and Robert Coldwell (ed.) (Texas: DGA Editions, 2006)

Hyde, Robert David, 'Delahyde.com'  
<<http://www.delahyde.com/joan/index.html?http://www.delahyde.com/joan/pagesj/intro.html>> [accessed 1 May 2019]

Jeffery, Brian, *Fernando Sor: Composer and Guitarist* (London: Tecla Editions, 1994)



Kirkman, Louisa, Joseph Mrs, *Improved Method for the Guitar, designed to facilitate the progress of the pupil and to diminish the labour of the teacher* (London: Kirkman Joseph, n.d.)

Kollmann, Augustus Frederic Christopher, *An Introduction to Extemporary Modulation in six general lessons for the Piano Forte or harp : with directions how they may be rendered useful for the violin and violoncello ' ... Op. XI* (London: Kollman, 1820)

Kollmann, Augustus Frederic Christopher, *The first beginning on the piano Forte : according to an improved Method of teaching Beginners Containing an explanatory Introduction, the Rudiments of the Art of Playing on Key'd Instruments, & a series of progressive Lessons and Sonatinas ... Opera V Kollmann, Augustus Frederic Christopher, 1756-1829* (London: Corri, Dussek & Co., for the Author, 1795)

Klein, Axel, 'Hudleston, Josiah' in White, Harry and Boydell, Barra (eds), *The Encyclopaedia of Music in Ireland*, Vol. 1 (Dublin: UCD Press, 2013) 502

Klein, Axel, 'Josiah Andrew Hudleston'  
<[https://en.wikipedia.org/wiki/Josiah\\_Andrew\\_Hudleston](https://en.wikipedia.org/wiki/Josiah_Andrew_Hudleston)> [accessed 1 Nov 2018]

Lawrence, Thomas, 'The History of Guitar in Ireland, 1760-1866' (PhD dissertation, National University of Ireland, 1999)

Lavelle, Lucy 'Josiah Andrew Hudleston' (1799 – 1865)  
<<https://www.wikitree.com/wiki/Hudleston-60>> [accessed 14 May 2019]

Lefèvre, Jean-Xavier, *Méthode de clarinette* (Paris: Magasin du Conservatoire de musique, Chez Janet et Cotell, n.d)

Mac Killop, Robert, 'Fernando Sor's Guitar Technique'  
<<https://robmackillop.files.wordpress.com/2011/01/sortechnique.pdf>>  
[accessed 1 May 2019]

Mc Cartney, Michael, 'J. A. Hudleston (1799-1865) A Guitarist in Nineteenth Century India', paper presented at Queens University, Belfast, 12 March 1997  
<<http://www.delahyde.com/joan/index.html?http://www.delahyde.com/joan/pagesj/josiah.html>>  
[accessed 1 May 2019]

Mc Cartney, Michael, 'Hudleston.com' <<http://www.hudleston.com>> [accessed 5 September 2016]

Mc Cartney, Michael, 'Introduction', Introduction to unfinished catalogue at RIAM library, Dublin, (unpublished c1995)

Mc Cartney, Michael, 'Preface', Preface to the unfinished catalogue at RIAM library, Dublin (unpublished c1995)

- Monzani, Tebaldo, *A new and enlarged edition of Monzani's Instructions for the German Flute 3rd edition* (London: Monzani & Hill, 1820)
- Moorhouse, Geoffrey, *India Britannica: A Vivid Introduction to the History of British India* (Chicago: Academy Press, 2000)
- Mutiah, Sabbiah, 'The Guitar Playing Collector', *The Hindu*, 21 May 2007, updated 18 July 2011 <<https://www.thehindu.com/todays-paper/tp-features/tp-metroplus/the-guitarplaying-collector/article2245530.ece>> [accessed 1 May 2019]
- Mutiah, Sabbiah, 'Musical life in early Madras', *The Hindu*, 5 November 2012
- Nayadu, W. S. Krishnaswami, *Old Madras* (Madras: Solden, 1965)
- Needham, Joseph, *Science and Civilization in China* (Cambridge: Cambridge University Press, 1962)
- Noad, Frederick, *The Classical Guitar* (New York: Amsco, 2001)
- Nüske, J. A. *Instructions for the Spanish Guitar, explaining in an easy manner The Art of Playing upon that Instrument both as an accompaniment for the Voice, and as a Solo Instrument, Illustrated with Arpeggios in the Principal Keys, together* (London: R. Cocks & Co., 1832)
- Olcott-Bickford Collection, California State University, Oviatt Library <<http://findingaids.csun.edu/archon/?p=collections/findingaid&id=88&q=&rootcontentid=4251#id4251>> [accessed 2 May 2019]
- Ophee, Matanya, 'Introduction' in Giulia Regondi, *Air varié de l'opera de Bellini, I Capuleti e i Montecchi* Orphee Editions <<http://editionsorphee.com/solos/reg-bellini.html>> [accessed 1 May 2019]
- Ophee, Matanya, 'Guitar Methods of Spain' <<http://www.guitarandluteissues.com/methods/methods.htm>> [accessed 1 May 2019]
- Ophee, Matanya, 'Francois De Fossa, A French Guitarist in Mexico', 30 April 1999 <<http://www.guitarandluteissues.com/defossa/mexico.htm>> [accessed 1 May 2019]
- Ophee, Matanya, 'Some Considerations of 19<sup>th</sup> Century Guitar Music and its Performance Practice Today', *Classical Guitar*, Vol. 5, No.1 (1986) 39-43
- Pelzer, Ferdinand, *One Hundred and Fifty Exercises for Acquiring a Facility of Performance upon the Spanish Guitar. Composed and Extracted from the Works of the best Writers for that Instrument* (London: n.p., 1836)
- Phipps, Thomas Bloomer, *Number 1. Illustrations of the Spanish Guitar: The Harmonics, the Glisse, the Slur, the Tambour, and other Beats of the Fandango, Bolero, Guaracha, &c* (London: Keith, Prowse and Co., n.d.)
- Pine, Richard & Acton, Charles (ed.), *To Talent Alone: The Royal Irish Academy of Music, 1848–1998* (Dublin: Gill and Macmillan, 1998)

Pratten, Madame R. Sidney, née Pelzer, *Guitar School. Containing Two Hundred & Thirty Six Examples, including Progressive Lessons & Fourteen Songs in various Keys. Diagram of the Notes on the Fingerboard. Explanation of the various peculiarities & beauties of the Instrument ... [etc.]* (London: Boosey and Sons, n.d.)

Rosquellas, P. , *Complete Tutor for the Spanish Guitar, Containing in addition to the Fingered Lessons & Exercises, Spanish, Italian, & English Songs, with Several National Airs* (London: Clementi & Company, n.d.)

Scheit, Karl, 'Austrian Guitar Archive' <<http://www.gitarre-archiv.at/scheit-archiv-zeitgenossische-gitarrenmusik/>> [accessed 2 May 2019]

Schneider, John, *The Contemporary Guitar* (Maryland: Rowman and Littlefield, 2015)

Schultz, Leonhard, *Modulations in chords for the guitar Op. 15* (London: Johanning and Co., n.d.)

Shields, Philip, 'The Special Collections of the Academy Library', in Richard Pine & Charles Acton (ed.), *To Talent Alone: The Royal Irish Academy of Music, 1848–1998* (Dublin: Gill and Macmillan 1998), 483–493

Sor, Fernando, *Method for the Spanish Guitar, A complete reprint of the 1832 English Translation* (London: Tecla Editions, 1995, 2003)

Stenstadvold, Erik, *Guitar Methods, 1760-1860: An Annotated Bibliography* (New York: Pedragon Press, 2010)

Stocqueler, J. H., *The Hand-Book of India, a guide to the stranger and the traveller and a companion to the resident* (London: n.p., 1844)

Swami, V. Narayan, 'One Touch of Adyar Changes Us Forever: Brodie's Castle from Hudleston's Garden' <<http://gibberandsqueak.blogspot.com/2008/10/one-touch-of-adyar-changes-us-for-ever.html>> [accessed 1 May 2019]

Taylor, John, *Tone Production on the Classical Guitar* (London: Musical New Services Ltd., 1978)

Torres, Rita and Ferreira-Lopes, Paulo, 'Multiphonics as a compositional element in writing for amplified guitar', *Emille*, Vol.10, No.12 (2012), 55-65

Tyler, James, *The Early Guitar* (London: Oxford University Press, 1980)

Tyler, James and Sparks, Paul, *The Guitar and its Music: from the Renaissance to the Classical Era* (Oxford: Oxford University Press, 2002).

Tully, Charles, *Tully's instructions for the French horn* (London: R. Cocks & Co., 1840)

Turnbull Harry, *The Guitar from the Renaissance to the Present Day* (London: B. T. Batsford Ltd, 1978)

Vishnick, Martin Lawrence, 'A Survey of Extended Techniques on the Classical Six-String Guitar with Appended Studies in New Morphological Notation' (PhD dissertation, City University London, 2014)

Wade, Graham, *A Concise History of the Classic Guitar* (Missouri: Mel Bay, 2001)

Weggelar, Judy 'Frederick Zcherpal (1793 – 1869)'  
<<https://www.wikitree.com/wiki/Zscherpel-15>> [accessed 28 May 2019].

Westbrook, James, 'Louis Panormo: 'The only Maker of Guitars in the Spanish style'', *Early Music*, Vol. 41, No. 4 (2013), 571-584

Whitaker, Marc, 'John Hudleston (1749-1835)'  
<<https://www.wikitree.com/wiki/Hudleston-54>> [accessed 14 May 2019]

## **Appendix A**

### **Josiah Hudleston's Harmonic Treatise Transcription of the Original Manuscript**

All efforts have been made to maintain the layout and format as close as possible to the original manuscript (see appendix B). In some cases this was not possible and it has been necessary to spread the original text from a single page across two pages, in this case the new extra page is shown with the edition of a letter, for example 19 and 19a. Any grammatical or spelling errors in the original have not been edited.

The original page numbers are found at the top of each page either on the left or right hand side as in the original manuscript. The page numbers at the bottom of each page refer to this dissertation as a whole for easier reference.

Please note that page 11 and 12 are missing from the original (see appendix B). There does not seem to be any information missing, they were possibly removed due to a copying error.

On page 17 the term 'martellato' is most likely a copying error and clearly refers to 'tremello' in this context.

Adyar, August 14<sup>th</sup> 1841

My Dear Ottley,

Many years ago my excellent friend that highly gifted musician and accomplished man Mr Fraderico Zscherpel Organist of the Cathedral at Madrid suggested to me the expediency of my composing a Book of Introduction for the guitar – His suggestions were not thrown away for I did commence a Method some time ago but did not go on with it – For I said to myself of what use can any method I could write be to a Guitarist who can have access to Carulli & Aguado & Sor's Instruction, for they, particularly the two latter give me all the information requisite for acquiring a thorough knowledge of this most delightful Instrument – I say no Guitar player should be without the works above mentioned – having studied the guitar now for 24 years I discovered that a great deal more could be effected upon it than I had any conception of when I first took it up: wishing that you might derive benefit from the result of my researches, especially in the one department of music, Viz Harmonic sounds, as regards the guitar, I resolved upon writing the following little Treatise on the subject – For it appeared to that the most eminent guitarists had not gone so deeply into the matter as they might have done – Instead of merely giving the harmonic sounds in

2

a Table – I thought I could enable you to acquire a perfect knowledge of the Harmonics in a more pleasing way by giving a few pretty Airs in harmonic sounds in the most effective keys – occasionally throwing out such remarks and giving such explanation as might be found useful – I accordingly about a fortnight ago commenced the following Treatise which I completed this day – and I dedicate the Work to you as you like me are a passionate admirer of this charming Instrument & will appreciate my attempt to afford you all the information I had from long study attained;

Ever your Most Sincere Friend

/Signed/ J.A. Hudleston

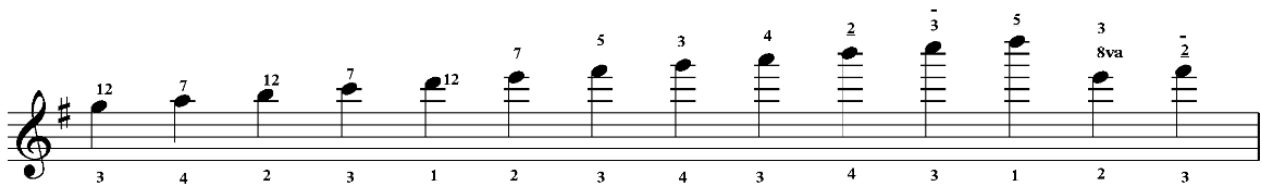
Copied from the original letter by




Hitherto a Poor East Indian

Illustrations of the Harmonic sounds on the Guitar as exemplified in the following scales & exercises in Various keys –





N. B. The upper figures denote the frets and the figures below the strings on which the harmonics are made.–

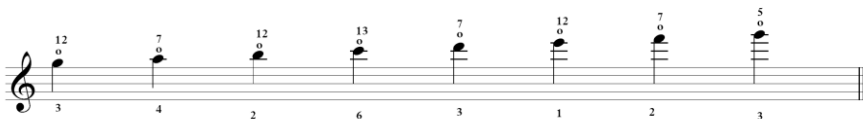
## Key of G





Now from the above example we find that we can sum up two whole octaves with the exception of the fourth note of the lower scale viz. the subdominant at C  as there is no way of producing the note. yes0 there are two distinct ways of producing this sound firstly by the process called double stopping with the fingers of both hands – first make this c  in the ordinary way by stopping it at the first fret of the second string then place the first finger of the right hand over the thirteenth fret and pull the string with the thumb of the right hand well stretched behind. Any note may be made an harmonic in this way – because it is nothing more than dividing a string in half – & the half of any string (or 12<sup>th</sup> fret) is always the first harmonic – of the second process by which you can produce the C above alluded to is by double stopping with the left hand alone , as is done by the Violin. It is thus accomplished, stop this C  in the usual manner at the third fret of

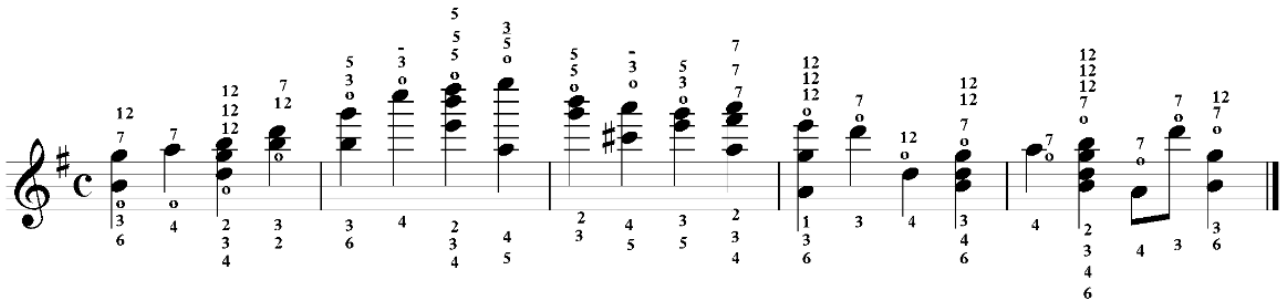




of the the fifth string with the first finger then extend the fourth finger at five frets distance or over the 8<sup>th</sup> fret & you have the double octave of the C above mentioned – This process has the advantage over the other that it does not require that the right hand should move from the usual position to stop the note but this latter method should be resorted to with great caution as the stretch is very great as at any fret you stop in the ordinary way on any string with the first finger of the left hand you can always produce the double octave by extending as said above the 4<sup>th</sup> finger at five frets distance it follows that as you (some times) make this C.  at the 8<sup>th</sup> fret of the sixth string you can give the harmonic C above mentioned viz  by placing lightly the 4th finger over the 13th fret since the frets approach nearer the higher you ascend this last mode does not require such a stretch as it is requisite to make when stopping it on the 5th string. I have never had occasion to resort to the last mode of making the C.  but thought it well to mention it could be effective as I am anxious to throw all the light I can on the subject of the beautiful sounds and enable you to profit by my researches but now with reference to the lower scale of G in the first octave which I will give you again I wish to show we can introduce the 4<sup>th</sup> of the scale of this C   
I should make it on the six<sup>th</sup> string in the way I last mentioned – viz on 6<sup>th</sup> string



I do this for two reasons first

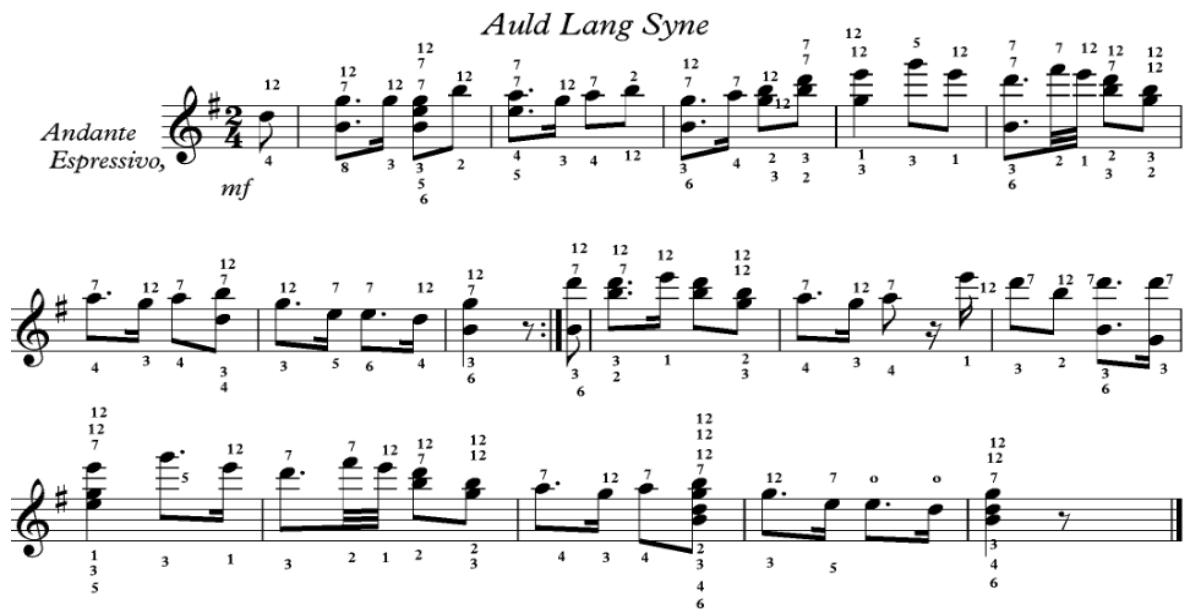
because as I make the B  by placing the 4<sup>th</sup> finger over the 12<sup>th</sup> fret of the second string & my fourth finger is quite prepared to stop the C.  in the usual way on sixth string & then my fourth finger is likewise prepared to rest lightly over the 13<sup>th</sup> fret for the harmonic where as did I make it on the 5<sup>th</sup> string I should have to shift my left hand to the third fret and secondly I should have to make a much great stretch as the distance from the 3<sup>rd</sup> fret to the 8<sup>th</sup> is much more than from the 8<sup>th</sup> to the 13<sup>th</sup> fret. I shall now give some notes of chords in this key of Sol – so here goes –




N. B. a dash under the number 3. denotes that the harmonic is made a little above the 3<sup>rd</sup> fret and a dash above the number 3 means a little below the fret for instance A  made a little below the 3<sup>rd</sup> fret but C  a little above the 3<sup>rd</sup> fret as no harmonic is made at the 3<sup>rd</sup> fret exactly but a little below or a little above I shall more conclude with the harmonics in G by giving an example of two Aurs played in harmonics in this key –

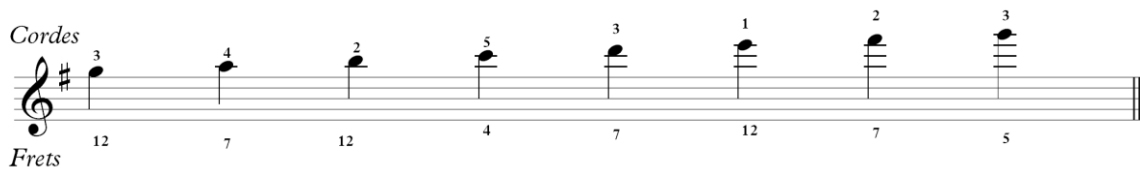
*Auld Lang Syne*

*Andante*  
*Espressivo,*  
*mf*



There follows an extract from Carulli opus 60 on the air J'aime les fillettes with his scale of the sounds on which I have only to observe that I should take the C  on the 9<sup>th</sup> fret of the A string instead of the 4<sup>th</sup>. He does not appear to be aware of the fact that the same harmonic sounds that are made at the fourth fret are made also at the ninth – where it is often indeed more convenient to make than at the fourth fret.–

*"Gamme de sons harmoniques que se trouvent dans la 6ieme Variation*



*Touche sons harmonique 6ieme variation*



I shall now give the harmonic scales in the key of A which is a more effective key than the key of G, as it will be found that there are two complete octaves in this key as I have exemplified.–


In addition to these two complete scales in A we have the following notes below in harmonic

sounds viz

you perceive there

are two notes wanting to complete the scale viz the third or low C#

and the sixth of this f# there could be made however by the process I before described of double stopping with both hands – that is to say dividing the string in half thus stop this C# on the 5<sup>th</sup> string in the ordinary way and at the

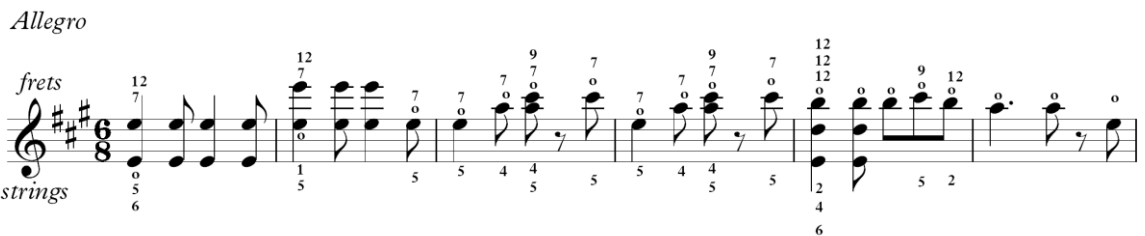
same time lightly put the first finger of the right hand over the 16<sup>th</sup> fret you have the octave. In like manner in the F#  made on the D string. –

Here I shall give in the way some double notes and chords,



I shall now introduce three different pieces of music in harmonics which will be found very useful particularly the two extracts from Legnani's operas the first piece is from my own arrangement of Boidiennes Chorus from la Dame Blanche which introduces the harmonics made at the 7<sup>th</sup>, 9<sup>th</sup> and 12<sup>th</sup> frets and also those at the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> frets. It will show that the 11<sup>th</sup>, 12<sup>th</sup>, 13<sup>th</sup> and 14<sup>th</sup> Bars can be played in different ways. -

Sons Harmoniques



Two staves of musical notation in G major (one sharp). The first staff contains a sequence of notes with various fingerings (0, 2, 4, 5, 6, 7, 9, 12) and ornaments (circles with vertical lines). The second staff continues the sequence with similar fingerings and ornaments. The notation includes treble clefs, a key signature of one sharp, and a common time signature.

The following is extracted from Legnani's Opera 12.  
Being the 8th Variation on a Tyrolian Air  
Harmonia

*toucher*  
*un poco moderato*

*cordes*

5 5 5 6 6 3 4 3 5 4 3 3 2 4 5 5 4 3 3 5 4 3 5 4 3 4 3 4 5 3  
5 6 5 5 5 6 5 6 6 5 6 4 5 5 5 3 4 5 6 5 6 6 5 6 5 4 5

5 4 3 3 5 4 3

3 4 5 6

5 4 3 3 5 4 3

3 4 5 6

Three staves of musical notation in 3/4 time. The first staff includes fingerings and a 'cordes' marking. The second and third staves continue the melodic line with fingerings. The notation includes treble clefs, a key signature of one sharp, and a 3/4 time signature.

N.B. The notes here sound one octave higher than they are written – this var. will be found an excellent lesson for teaching you all the harmonic sounds that are made on the 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> strings at the 5<sup>th</sup>, 4<sup>th</sup> and 3<sup>rd</sup> or another a little below 3<sup>rd</sup> frets /. and as the variation is played entirely on the silver strings the harmonics are much sweeter & fuller in tone than they would be if made on the other strings. In the third example I am now going to give if will be observed that the same harmonics as those given on the above examples are made at the other end of the finger board viz a 7<sup>th</sup>, 9<sup>th</sup> or 12<sup>th</sup> frets because two or three parts are given in the harmonies with beautiful effect – the following is extracted from Legnani's Six Pieces op. 20 no. 25. which are admirable as exercises in all of the keys.

N.B. Pour executer les sons harmoniques on observer a que les numeros de suis indignant la touches et ecut de sons les cordes.–

*Andante grazioso,*

The image shows two staves of musical notation for Legnani's Six Pieces op. 20 no. 25. The first staff is marked 'Andante grazioso' and is in G major (two sharps) and 2/4 time. It features a series of chords with fingerings (1-5) and fret numbers (12, 9, 7) written above the notes. The second staff continues the piece with similar chordal structures and fingerings. The notation includes various fret numbers (7, 9, 12) and fingerings (1-5) for each note, indicating the specific technique for producing harmonics on the strings.

I shall now give the scales in D in harmonics first observing that you must tune the sixth string in D or the octave below the fourth string – this enables me to play two complete scales in harmonics – and as this is the most effective of keys for harmonics I shall give a greater number of examples in this key than I did in the other keys of Sol & La. Here are the scales –



N.B. 6ieme corde on Ré

*a little below the 2nd fret of the 4th string where it sounds more certain*  
 or 5th fret of the 2nd string or 7th fret of the 1st string  
 all the nineteen sounds come out as clearly as possible I could have intended  
 the scale two notes higher, by giving the G in altissimo a little below the  
 2nd fret of the sol and the A in at the 2nd fret of the sold but that is unadvisable  
 to take harmonics on the 1st, 2nd and 3rd strings higher than those made a little below  
 the 3rd frets as they will not sound clearly as do all that can be made on the  
 4th 5th & sixth string--



An Exercise

The image shows a musical score for an exercise. It consists of two staves. The top staff is labeled 'frets' and the bottom staff is labeled 'strings'. Both staves are in the key of D major (one sharp) and 4/4 time. The top staff shows notes with fret numbers above them: 12, 9, 7, 7, 7, 6, 3, 5, 3, 5, 5, 5, 12, 7, 12, 7. The bottom staff shows notes with string numbers below them: 6, 5, 4, 5, 4, 3, 2, 4, 5, 4, 5, 4, 4, 6, 1, 3, 4, 6, 6, 7, 12, 7, 12, 4, 6.

You will observe that in the above exercise that A.  is sometimes take at the 7<sup>th</sup> fret of the 4<sup>th</sup> string and sometimes at the 5<sup>th</sup> fret of the 5<sup>th</sup> string and the E.  is likewise taken in two ways Viz at the 12<sup>th</sup> fret of the chanterelle or 3<sup>rd</sup> fret of the la, this is done for convenience sake. I shall now give an example showing how easy it is to play in two parts and the best example I can think of at this moment is the following trumpet tune which will show that the duo for this 2 instruments is perfect in harmonics. –

Trumpet tune that used to be played at the execution of malefactors in Edinburgh. It is a plaintive one and admirably suited to the guitar. –

The image shows a musical score for a trumpet tune in 3/4 time, key of D major. The score is written on a single staff with a treble clef. It features complex chords and intervals, with many notes marked with fret numbers (7, 9, 12, 5, 6) and fingering numbers (1, 2, 3, 4, 5, 6). The piece is characterized by its plaintive and harmonious quality.

I shall now give an Air with a variation in triplets which will be found a useful study & familiarize you with the harmonics in this most effective key of D.—

N.B. In this & the following airs it is to be observed that the harmonics sound an octave higher than they are written—. I write the music this to avoid giving the very highest notes such as the sixth and seventh ledger lines which are difficult to the eye. —

*Rousseau's Dream en Sons Harmoniques,*

6th String to D.  
*Andantino*  
*f*

This variation will be useful in showing you the harms that are made at 7<sup>th</sup>, 9<sup>th</sup>, 5<sup>th</sup> and 3<sup>rd</sup> frets.-

6th Variation

2nd variation

I have given the second variation as it is a good one for exercising you both in making tenths (as shown in the first part) & thirds as shown in the second part – it is also useful as

introducing some sixths which are repeated in the octave above. I have never met with Martellato passages in harmonics – But I will here give one of my Variations in harmonics to show that Martellato passages can be played in harmonic sounds all these variations I am giving are taken from my variations in E Dozen sharps on Rousseau's Dream. I have transposed them into the key of D to illustrate the harmonics which as I have before observed are more effective in this key than any other. –

variation 3

I shall now give a variation in Arpeggio which will form a good study for shifting from the 7<sup>th</sup> to 5<sup>th</sup> and 3<sup>rd</sup> frets.–

Var. 4

frets

strings

You will see that the latter half of the third bar is taken two ways the first time the F# & A is made at 4<sup>th</sup> and 5<sup>th</sup> frets of the 4<sup>th</sup> and 5<sup>th</sup> strings & the repetitions is made at the 7<sup>th</sup> frets of the 2<sup>nd</sup> and 4<sup>th</sup> strings to prepare for the following bar. –

volta, subito,

I shall give you a variation as an exercise in octaves – it will be found very useful in making you acquainted [sic] with the fingerboard – and it will not be found difficult with the exception of the third bar of the first part and the 2<sup>nd</sup>, 3<sup>rd</sup>, and fourth bars if second part where the two G's and the B's must be taken on the same string – viz the lower g at the 12<sup>th</sup> fret for the sol and its octave at the fifth fret of the sol. The lower G# must be made at the 4<sup>th</sup> fret of the La and its octave a little above the second fret of the la. A little dexterity is requisite to bring these out neatly by practice will overcome every difficulty. – however as the passage above mentioned may be found too difficult the notes given above the Bars may be substituted for them.

*var. 5*




The image displays a musical score for guitar in D major, consisting of three systems of music. The first system includes a double bar line with a repeat sign and a first ending bracket. The second system features a measure with a fermata over the final note. The third system begins with a measure number '10'. The score is heavily annotated with fingering numbers (1-5) and includes a section labeled 'easy.' with simplified fingering. The notation includes various rhythmic patterns and complex intervals.

The following variation in the second part will be found a useful exercise for the thirds both in the lower and upper octave & this variation is much easier than the one first given in octaves which I consider as a studie to enable you to find out how the octaves can be made – I should not in general write such difficult passages in harmonics.-

6th var.



*the latter half of the first bar may be played in two ways as here shown*








The musical score is written for guitar in treble clef, with a key signature of two sharps (F# and C#) and a common time signature (C). It consists of three staves of music. The first staff begins with a whole rest, followed by a quarter note G4 (fret 5) and a quarter note F#4 (fret 4). The second staff contains a complex sequence of chords and single notes with numerous fret numbers (e.g., 7, 9, 12, 10, 8, 6, 4, 3, 2, 1) and fingerings (e.g., 3, 4, 5, 6, 7, 9, 12) written below. The third staff continues this sequence, ending with a double bar line and repeat dots. The notation includes various rhythmic values such as quarter, eighth, and sixteenth notes, as well as rests.







I shall now conclude this Air with another variation in Arpeggio which will bring in all the principal notes of this key & it will show you how convenient it is to take the same notes on different strings or on different parts of the same string for example the A  will sometimes be made at the 12<sup>th</sup> fret of the 5<sup>th</sup> string & sometimes be made at the 7<sup>th</sup> fret of the 6<sup>th</sup> string and also the C#  in the first bar is taken at the ninth fret of the fifth string whereas the 1<sup>st</sup> bar of the second part the C# is made at the 4<sup>th</sup> fret of the fifth string and the A that follows  is made a little below the 3<sup>rd</sup> fret of the sixth string or at the 7<sup>th</sup> fret of the 4<sup>th</sup> string because it was requisite in arpeggio passages to have a string for each note of the group this last variation is rather difficult and I never in the course of twenty four years study of the instrument met with such passages in arpeggios in harmonic sounds but then it need not be played fast, it is in a studie I have given it to make you perfect in the various ways of giving harmonics, but as a general rule these beautiful sounds should be given in rapid movements & are far more effective in slow pieces.

*7th var.*





The fingerings of the harmonic sounds is never given— One must use such fingers to stop as will be found most convenient – however with a view to assisting you in playing this last variation I shall explain the manner in which I play it, The first note I make by touching lightly on the 12<sup>th</sup> fret of the 6<sup>th</sup> string with the 3<sup>rd</sup> or 4<sup>th</sup> finger the next three notes A.D.F, being all made at the 7<sup>th</sup> fret I have only to Bar lightly over the 2<sup>nd</sup> , 3<sup>rd</sup> and 4<sup>th</sup> strings at the 7<sup>th</sup> fret— the second group in the first bar viz.—  I play so – I place the first finger over the 7<sup>th</sup> fret of the sixth string which this  and the octave or next note


I make with the same finger over the 7<sup>th</sup> fret of the 4<sup>th</sup> string the 3<sup>rd</sup> fret or the G# I make with the second finger over the 9<sup>th</sup> fret of the 5<sup>th</sup> string and the E  I make by placing the 4<sup>th</sup> finger over the 12<sup>th</sup> fret of the first string the third group in the 1<sup>st</sup> Bar.  I play thus my 4<sup>th</sup> finger is placed over the 12<sup>th</sup> fret of the 4<sup>th</sup> string for the low D the 2\*\* is placed over the 9<sup>th</sup> fret of 6<sup>th</sup> string for the F# the 2\*\* next notes A & D. Are made with 1<sup>st</sup> finger over 7<sup>th</sup> fret of 3.. and 4<sup>th</sup> strings. The first group of notes in the second bar viz these  are played thus, the three first notes with the first finger lightly over the 7<sup>th</sup> frets of the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> strings then my 4<sup>th</sup> finger bars lightly over the 12<sup>th</sup> fret at the 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> strings which give me  so you will perceive the A convincingly The group is made on the sixth string at the 7<sup>th</sup> fret where as the same note ending the groups is made on the fifth string at the 12<sup>th</sup> fret because it is in the way of playing the passage in the first group of notes in the third bar.  The fourth finger placed over the 12<sup>th</sup> fret of the 6<sup>th</sup> string gives me the lowest note it immediately quits that fret and is replaced over the 7<sup>th</sup> fret of the second and 3... strings to make the D & F  and at the same time the first finger is placed a little below the 3<sup>rd</sup> fret of the 4<sup>th</sup> string which gives the A The second group of notes in the bar  is rather difficult and demands great accuracy in the distances for as it

is in harmonics it cannot be played in one position of the left hand for the hand must shift after making the three first notes which I do thus the 1<sup>st</sup> finger placed over the seventh fret of the sixth string for A. The second finger over the ninth fret of the fifth string for G# and the 4<sup>th</sup> finger over the 12<sup>th</sup> fret of the first string for G) to the fifth fret for the G  which I make with the 3<sup>rd</sup> finger over that fret of the 3<sup>rd</sup> string. I then in order to avoid shifting the hand take the G that follows with the first finger placed a little below the 3<sup>rd</sup> fret of the fifth string & the last note G# I make with the 2<sup>nd</sup> finger over the 4<sup>th</sup> fret of the 5<sup>th</sup> string and not as at the beginning of the group at ninth fret. The third group of notes in the bar above mentioned  I play thus, the second finger over the 5<sup>th</sup> fret of the sixth string gives one the low D the three next notes A, D, and F. I play with the fourth finger over the 7<sup>th</sup> frets of the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> strings the low F#  which commenced the last part of that same bar I make with the first finger over the 4<sup>th</sup> and 6<sup>th</sup> string – and the first portion of the last bar of the first part  I play thus the three first notes with the 4<sup>th</sup> finger barring 12<sup>th</sup> frets of the 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> strings and the three last notes A & A.  I do by barring with 1<sup>st</sup> finger over the seventh frets of the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> strings. The second portion of the first bar of the second part  I play so – the E. With the fourth finger over the 7<sup>th</sup> fret of the 5<sup>th</sup> string The A. with the first finger a little below the 3<sup>rd</sup> fret of 6<sup>th</sup> string the G# with second finger over 4<sup>th</sup> fret of 5<sup>th</sup> string & the g.

G with the third finger 4<sup>th</sup> over the 6<sup>th</sup> fret of the 3<sup>rd</sup> string. The first part of the following bar

containing these notes  I thus play my fourth finger over the 12<sup>th</sup> fret of the 2<sup>nd</sup>

string for low b  then my first finger barring lightly over the fifth frets of the 2,3 and 4<sup>th</sup>

strings produce D, G & B  I shall now introduce a few Scotch, Irish and Welsh Airs

which are well adapted to set off harmonic sounds as they are plaintive & to be played slowly they

will be found very easy to execute and I shall not do more than number the frets and strings where

the harmonics are made. The first Air is a most pathetic one. –

*Here's a health to those far away - Scotch Air*



*Ye Banks and Braes.*



*Go where glory waits thee, Irish Melodies*

*Tenderly Duo*

frets

strings

*aprestantando*

*lentando*

*oh then remember me.*

Here you will remark that in commencing the air for the last time I give it an octave lower than I did at the beginning as showing you how much can be played in harmonics in the key of D

*Erin, the tear and the smile in thine eyes*

Musical score for "Erin, the tear and the smile in thine eyes". The score is written in treble clef with a key signature of one sharp (F#) and a 3/4 time signature. It consists of two staves of music. The first staff contains the first six measures, and the second staff contains the remaining six measures. The music features a mix of chords and single notes, with numerous fingering numbers (1-5) and bar numbers (7, 9, 12) written above the notes. The piece concludes with a double bar line.

*The harp once' thro' Tara's Halls.*

Musical score for "The harp once' thro' Tara's Halls." The score is written in treble clef with a key signature of one sharp (F#) and a common time (C) signature. It is marked "Slow" and consists of three staves of music. The first staff contains the first six measures, the second staff contains the next six measures, and the third staff contains the final six measures. The music is primarily composed of single notes with some chords, featuring many fingering numbers (1-5) and bar numbers (7, 9, 12) written above the notes. The piece concludes with a double bar line.

*Believe me if all those endearing young charms.*

*With feeling*

frets

strings

The musical score consists of three staves of music in treble clef, key of D major (two sharps), and 6/8 time. The first staff is labeled 'With feeling' and 'strings'. It contains six measures of music. Above the staff, fret numbers are written: 9 7, 12 7, 12 9 7, 12 12 7 7, 9 12, and 9 12. Below the staff, fingering numbers are written: 6 5, 4 5, 4 6 4, 3 2 3 3, 5 2, and 6 3. The second staff contains six measures of music with fret numbers: 12 7, 12 9 7, 12 12 7 7, 9 12, and 12 7. Fingering numbers are: 4 5, 4 6 4, 3 2 3 3, 5 2, and 4 5. The third staff contains six measures of music with fret numbers: 9 12, 12 7, 12 9 7, 12 12 7 7, 9 12, and 7. Fingering numbers are: 6 3, 4 5, 4 6 4, 3 2 3 3, 5 2, and 7. The piece ends with a double bar line.

*Maestoso*

*Welsh Air Poor Mary Anne*

The musical score for 'Welsh Air Poor Mary Anne' consists of three staves. The first staff contains the main melody with various fret numbers (7, 9, 12) and fingering (3, 4, 6, 5, 2, 3, 4, 1, 5, 3, 4, 4, 2, 4, 5, 4, 7, 9, 7, 12, 9, 7, 12, 9, 7, 12). The second and third staves provide harmonic accompaniment with their own fret and fingering notations.

*this sixth.*

*cannot be made except by stopping the 5th fret of 3rd string with the thumb for G at the 12th fret if 2nd string for B. with the 4th finger & even there the stretch is very great to perhaps the lower note had better be omitted. -*

*The rising of the lark. Welsh air*

*Moderato*

The musical score for 'The rising of the lark. Welsh air' consists of three staves. The first staff shows the melody with fret numbers (7, 9, 12, 7, 9, 12, 7, 9, 12, 7, 9, 12, 12, 12) and fingering (3, 4, 6, 4, 3, 6, 3, 4, 6, 3, 5, 4, 6, 5, 4, 3, 2, 1, 3). The second and third staves provide harmonic accompaniment with their own fret and fingering notations.



I shall now conclude with a piece from Rossini  
*Opera of Tancredi & God save the King.*  
*Plandite O Popoli:*


Moderato

frets

strings

*f*

The musical score is written for guitar strings in a Moderato tempo. It consists of seven staves of music. The key signature is D major (two sharps). The score includes various fret numbers (7, 9, 12) and string numbers (1-6) written below the notes. There are also dynamic markings such as *f* (forte) and accents (>). The piece concludes with a final chord on the seventh staff.

This movement of Rossini I consider an excellent study for it brings in thirds sixths and octaves and the new harmonic sounds I discovered viz the one made a little above the 2<sup>nd</sup> fret or the octave to the harmonic made at the 4<sup>th</sup> fret of the 5<sup>th</sup> string being the C#  this enables me to introduce the upper octave just as it is written for the piano forte, I find no guitar give the harmonics so distinctly and full as Sor's guitar.

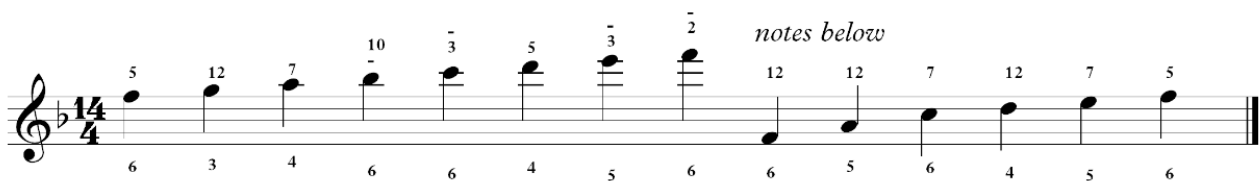
*God save the King*





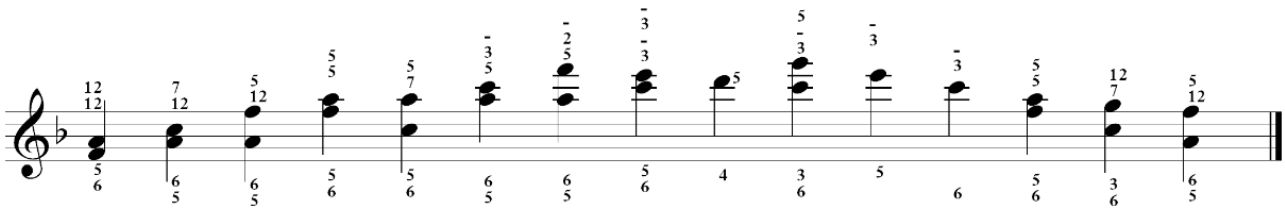
For further examples of what can be done in harmonic sounds (in the key of D) I refer you to Sor's admirable studies, No 21 in his opera 29 to a Brown set of 6 Divertimento comprising a new system of Natural harmonics with an offilantory scale & lastly to my arrangement in harmonics of Handle Funeral March from Saul

with those here given in the key of D will be sufficient to show how the beautiful sounds may be produced in chord of varied harmony and that one can always play in two and three parts and even sometimes four. –

I have now given you the harmonic sounds in the three best keys for them viz G. D and A perfect scales could not be made in the ordinary way in harmonics in other keys with the exception of F in which key by tuning the 6<sup>th</sup> string to F / as Sor very frequently does when playing in this key / you can produce a whole octave with the exception of the fourth note from the tonic or 6<sup>th</sup> which note however can be given by double stopping in the manner done on the violin will give you the scale in F.





The B $\flat$  or 4<sup>th</sup> note of the scale I make on the 6<sup>th</sup> string by the first finger stopping the low B $\flat$   at 5<sup>th</sup> fret, I extend the 4<sup>th</sup> finger lightly five frets distant or over – the 10<sup>th</sup> fret. Which gives the double stop above or the 4<sup>th</sup> in this scale – I then quit that double stop & back my first finger over /or rather a little below/ 3<sup>rd</sup> fret for the following note C.  these double notes can be made quite easily in this key – viz. –



*As it is impossible to reach from 5th to 12th fret with the 1st & 4th fingers I make the F or 5th line with the thumb as they bar on the violin cello I then can reach with 4th finger the 12th fret of the A. string for the 6th below or A.*



*The F must be double stopped as on violin as before*

I have never met with a whole tune in harmonics in the key of F so in order to show how exactly it can be played I shall now introduce one the first melodies – I find every note of this sweet Air excepting the B  $\flat$  in the third bar can be given in harmonics and so can that note by resorting to the violin method of double stopping viz  for my first finger having previously made the A preceding I have only to stop the B  $\flat$   on the 6<sup>th</sup> string / now in F / at the fifth fret then stretch my fourth finger lightly at five frets distance, that is over the 10<sup>th</sup> fret which given the double octave you have then only to raise the little finger & put your first over the fifth string at the fret where it already is / the 5<sup>th</sup> / or you may substitute at the 3<sup>rd</sup> fret of 6<sup>th</sup> string for the B  $\flat$  if you find this double stop difficult, I don't find it so because the air should be played slow – .

*The last Rose of Summer*

....lightly over 5th fret the lower note made with the 4th finger put over 12th fret of the 6th string.-

The new harmonic sound recently discovered a little above the 2<sup>nd</sup> fret of the 5<sup>th</sup> string and 6<sup>th</sup> string enable me to play the perfect upper scale of G as well as that of A and D which two latter I have given already , here is the scale in four sharps. –

*Notes in the lower octave*

*Exercise*



I do not give scales in any other keys such as C & because one could not give them without being obliged to resort to double stopping for several notes. I have omitted giving a table of the harmonic sounds as every guitarist should have Carulli's method – Aguado's excellent Instructions and Sor's admirable treatise. However as I wish to make my little work as complete as I can, I save you the trouble of referring to the above mentioned works I will here give the table of harmonic sounds of every string N.B. a dash under the number  $2 \overset{\sim}{2}$  or  $3 \overset{\sim}{3}$  means that the harmonic is made a little above the 2<sup>nd</sup> or 3<sup>rd</sup> frets & the dash over the number  $\overset{\sim}{2}$   $\overset{\sim}{3}$  signifies that the harmonic sound is made a little below the second or third frets – it being remembered that no harmonic is made exactly at the third frets. –

*Table of harmonic sounds*

*N.B. the harmonics sound an octave higher than written here*

12th fret      7th fret      5th fret      4th frets      3rd frets *little* below

*chanterelle*



















*Second string*

*Third string*



*Fourth string*

*Fifth string*









*Sixth string*








<i>5th above 3rd fret, never used</i>	<i>A little below 2nd fret, never used</i>	<i>At 2nd fret, never used</i>
		
 <i>never used</i>	 <i>never required</i>	 <i>never used</i>
 <i>never used</i>	 <i>never used</i>	 <i>never used</i>
 <i>useful</i>	 <i>I find this note comes more clearly than it does on the G string 3rd fret</i>	 <i>never required or you have it on the 1st string at 5th fret</i>
 <i>seldom if ever used as you have it on the g string 5th fret</i>	 <i>not required, as you have it on the 4th string 3.-</i>	 <i>never required to be made in this way as the B. is made.- on three other strings viz: at 7th fret of 1st string at 5th fret of 2nd strings and at 4th fret of 3rd string</i>
 <i>seldom if ever made this way as you have this D on the D string at 5th fret and also on G string 4th fret</i>	 <i>seldom if ever made this way but either on 5th string at 3rd fret or on the 1st string at 12th fret</i>	 <i>Not required to be made this way as it is better when made on 4th string 4th fret or on 2nd string at 7th fret.-</i>




It is to be observed that all harmonic sounds made at the fourth frets can also be made at the ninth frets at which latter it is often more convenient to make them. In addition to all the harmonics above given recently discovered another harmonic in the 4<sup>th</sup> 5<sup>th</sup> and 6<sup>th</sup> strings which is made by putting the finger a little above the 2<sup>nd</sup> frets it gives the octave above the harmonic made at 4<sup>th</sup> frets but never use them excepting on the 5<sup>th</sup> and 6<sup>th</sup> strings as the one on the 4<sup>th</sup> string you have on the 2<sup>nd</sup> string at the 3<sup>rd</sup> fret. The notes I have found useful are these two  and C# 


The former is made a little above the 2<sup>nd</sup> fret and the latter on the sixth string at the same place. –

N.B. from the table of harmonic sounds above given it appears that on any string you can produce eight harmonic sounds. Taking the D string for example you have at the twelfth fret the octave to the open string viz D  at the ninth fret the tenth, or major third F. sharp  at the seventh double fifth A.  at the fifth the double octave D  at the fourth the double major third F # / same note as ninth fret / a little below the third the triple fifth A  A little above the same the triple minor 7<sup>th</sup>  Below the second the triple octave  on the second fret the triple ninth E.  it is obvious too that the harmonics at the fifth fret are one octave above those at the 12<sup>th</sup> fret and after that the harmonic sounds made a little below the third fret are one octave

higher than those made at the seventh frets— and further the harmonic seventh made a little below the second fret is an octave higher than the harmonic made at the fifth fret. It also appears from the table above given that as there are several places where you can find the same note you can / as Sor remarks in his treatise p35 / take advantage of this circumstance to play in two or even three parts in harmonics for example the A  is made sometimes at the 7th fret of the 4<sup>th</sup> string & sometimes at the 5<sup>th</sup> fret of the fifth string. The C#  is made too in two ways viz either at the ninth or 4<sup>th</sup> fret of the 5<sup>th</sup> string and this E  is likewise made usually in two ways viz. either at the 12<sup>th</sup> fret of the 1<sup>st</sup> string or a little below the third fret of the 5<sup>th</sup> string this chord  you can make in harmonics thus the first finger placed lightly over the 7<sup>th</sup> fret of the 4<sup>th</sup> string gives the A then the second finger placed over the ninth fret of the 5<sup>th</sup> string gives C#  and the fourth finger placed over the 12<sup>th</sup> fret of the first string gives the E  in the following inversion of the chord of A  in harmonic sounds the G# must be made at the 4<sup>th</sup> fret of the fifth string as the upper A is made a little below the 3<sup>rd</sup> fret of the D. 4<sup>th</sup> string by playing the first finger there pressing the 2<sup>nd</sup> finger at the 4<sup>th</sup> fret of the A string for the C# and the E is made at the 5<sup>th</sup> fret of the sixth string with the third finger I shall in order to assist you in acquiring a knowledge of the various ways in which some harmonic sounds are made give the table of those that can be made in two or three


ways I shall take first this B  only observing that in the tables I give the notes an octave lower than they sound in order to avoid using the very high ledger lines.


The following notes can be made in various ways.

<p><i>Chanterelle</i></p>  <p><i>7th touche</i></p> <p><i>2nd Corde</i></p>  <p><i>5th touche</i></p> <p><i>3rd Corde</i></p>  <p><i>4th touche</i></p>	<p><i>3rd Corde</i></p>  <p><i>7th touche</i></p> <p><i>4th Corde</i></p>  <p><i>5th touche</i></p> <p><i>2nd Corde</i></p>  <p><i>7th touche</i></p> <p><i>4th Corde</i></p>  <p><i>4th touche</i></p>
<p><i>4th Corde</i></p>  <p><i>7th touche</i></p> <p><i>5th Corde</i></p>  <p><i>5th touche</i></p>	<p><i>2nd Corde</i></p>  <p><i>12th touche</i></p> <p><i>6th Corde</i></p>  <p><i>3rd touche, a little below 3rd fret</i></p>
<p><i>chanterelle</i></p>  <p><i>12th touche</i></p> <p><i>5th Corde</i></p>  <p><i>3rd touche</i></p>	<p><i>5th Corde</i></p>  <p><i>7th touche</i></p> <p><i>6th Corde</i></p>  <p><i>5th touche</i></p>




I have before observed that the same harmonic sounds made of the 4<sup>th</sup> frets can also be made at the ninth fret a circumstance quite over looked by Carulli in his table at page 35 of his first instruction book. –

I have found it useful to bear in mind that the notes rendered in the ordinary way at the seventh frets such as these on the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> strings  gives their octaves above in harmonics at



the very same frets touched lightly and also that these notes a double octave above when the finger is placed lightly over the 4<sup>th</sup> frets for example these  when the finger touches


lightly above the 4<sup>th</sup> frets the low notes above given produce these  another rule which I will enable you to acquire easily the knowledge of harmonic sound on the guitar is , that the 5<sup>th</sup>, 4<sup>th</sup>


and 3<sup>rd</sup> frets always give the notes of the common chord for instance take the A & D string A.

 & D string  & the E . string below  fingering of harmonics is never given it is only requisite to know the strings and frets where you make the

beautiful sounds & then consult the position of the left hand fingers – for example this harmonic

sounds in 4 parts  I should make thus, my first finger over the seventh fret of other 5<sup>th</sup> string giving me this E  I then place my second finger over the ninth

fret of the sixth string for the G#, I then place my fourth finger over the 12<sup>th</sup> frets of the 2<sup>nd</sup> & 1<sup>st</sup> strings which gives me the B and E above, I have only one more remark to make & that is that the harmonic sounds on the silver strings are much sweeter and fuller than those made on the cat gut strings for instance this D  has a better effect when made on the fourth string at fifth fret than when made at the seventh fret of the third string. –

There is another method of producing harmonic sounds which enables you to make the notes harmonic which could not be done in the usual way but the mode is only suited to slow passages and you can only produce one note at a time – it consists in determining the half of every length of string between the point which was to produce the sound and the bridge by a finger of the same hand that attacked the string, whilst the other hand is employed in fingering the notes of which the harmonics yield the octaves above, for example this C  is thus made harmonic. Stop it in the usual way on the second string with the first finger of the right hand over the 13<sup>th</sup> fret which is the half of the string to consequently the octave you then pull the string with the thumb of the right hand well stretched behind the finger – but this method besides imposing the double task of being obliged to measure very accurately the distance for both hands, involved the inconvenience of being forced

to employ the whole of the right hand to play a simple note and every harmonic you wish to produce cost to only the motion of the wrist but of the whole arm too and (as Sor observes in his treatise p34) having no point to support, it was nearly impossible for me to direct my finger with certainty exactly to the middle point of every distance , Sor afterwards observed / see page 35 / that the violin method is more promising. –

However it is sometimes of use making the harmonics by double stopping with both hands, I recommend playing the scales I have set down



Now to do this – the first finger with the left hand the notes as they are written and at the same time touch lightly the octave of each note with the first finger of the right hand & pull the strings with the thumb of the right hand & the result must be that they sound the octave above in harmonics you might also find several notes higher than what I have written but there being no frets to guide one the touching the impact point with the right hand or taking the half of the string is rather difficult. I have now my friend brought this

little treatise to a close, and I cannot but feel convinced after all that I have written on the subject of harmonic sounds that the guitar is without question the most scientific just invent in the world – I am fully aware that harmonic sounds can be made on the harp but the ordinary method of doing so is awkward viz stopping the half of the string with the middle of the same that attacked the string hand – this is not nearly so easy or perfect a way as the guitar method and then I never saw any harpist make use of the right hand to form harmonic sounds they usually employ the left hand & can consequentially only produce double notes. –


The great harpist Bochsa in his novel effects certainly produces various harmonics on the same string as we do on the guitar but conceive the enormous difficulty of determining with certainty the aliquot parts of a string where harmonics are made when there are no frets to guide the eye & this enables you to touch the point required with certainty. 14<sup>th</sup> August 1841.–





I find it better to pull the strings with the second finger and thumb instead of attacking the strings with the first and second fingers – because in the first place my fingers are more free and secondly by making use of the thumb (which I keep behind & under the fixed finger so as not to confuse the position of the that part of the right hand required to stop the harmonics) I can with ease play this way on the first & third– on the second and fourth and on the third and fifth string in the keys of E – F & A C & D & e – I shall now give some scales

and examples of thirds and sixths in the keys of E, F, G, C and D

These  and the following octave are all made in the usual manner according to the 1<sup>st</sup> method described in my treatise the sixth string being in D the following marked with an + can only be made according to the notes with 0 above them and must usually according to the first or ordinary method.

The following sixths marked with a + can only be made by the last method or harp method.

The notes with o above them are made usually according to the first or usual method.

The following sixths marked with a + can only be made by this last method or the harp method.

The key of D with sixths being in D as before tried at the commencement of my treatise is

the most effective for harmonic sounds as more than two octaves can be played according to the usual method.– so this last or harp method is not necessary to be to when playing in D – in fact I only resorted to it (as harp) when playing in G & e – Etc.

**Appendix B**

**Josiah Hudleston's Harmonic Treatise**

**Facsimile of the Original Manuscript**







*J. A. Huddleston Esq.*





J. M. Woodcut





A Treatise on Harmonic Science	3
March to the battle in Joshua - Handel	45
A selection from Handel's water music -	46
+ Waltz by Cecile G. Offenb. with variations for the guitar by J. H. L.	50
+ Minuet by Handel	55
+ Minuet & Trio from Handel's 11th Grand symphony	59
+ Air with variations by Pleyel adapted for the guitar by J. H. L.	62
+ Swiss waltz with variations by J. H. L.	64
+ Air with variations by Herz set for the guitar by J. H. L.	67
Moravian musical by Thalbreuner	71
Waltz from Eugene Sue	72
Slow movement	74
Air from Lu S. Marini's Pelloni	75
+ Moy's wife of Fiedis all with variations by Thalbreuner set for the guitar by J. H. L.	76
Caoutine favorite de la Violette de couleur with variations by Herz adapted for the guitar J. H. L.	81
+ Hallelujah chorus by Handel set for the guitar by J. H. L.	84
March by Hummel	87
Pollace by Hummel	90



Le petit Sambaou with variations by <del>Wasson</del> arranged for the guitar by L.M. -	90
Martini's overture. to <del>be</del> <sup>the 2<sup>nd</sup> set</sup> for the guitar by L.M. -	93
Gavotte de Vastrie . . . . .	107
Thema with variation by Meckhove set for the guitar by L.M. -	122
The loss of Michoud hill . . . . .	123
Beluch's celebrated Lu chappe . . . . .	120
See the conquering Hero comes with var. Meckhove adapted for the guitar by L.M.	136
The Battle of Prague set for the guitar by L.M. -	142
Will you be clad - Mason . . . . .	156
Emancipation variations by Wasson arranged for the guitar by L.M.	159
Air with variations by L.M. . . . .	162
Variations on the French air Le Tobacou du Fass by L.M. . . . .	166
Eight variations on "Bel cor-pier" by L.M. - . . . . .	171



1  
Ayar August 14<sup>th</sup> 1841.

My Dear Otley.

Many years ago my excellent friend that highly gifted musician and accomplished man Mr. Frederic Zecherfel Organist of the Cathedral at Madras suggested to me the expediency of my composing a Book of Instructions for the Guitar. His suggestions were not thrown away for I did commence a Method some time ago, but did not go on with it. For I said to myself of what use can any method I could write be to a Guittarrist who can have access to Carulle's, Aguado's & Sor's Instruction's For they, particularly the two latter give one all the information requisite for acquiring a thorough knowledge of this most delightful Instrument. I say no Guitar player should be without the works above mentioned. Having studied the Guitar now for 24 years I discovered that a great deal more could be effected upon it than I had any conception of when I first took up; wishing that you might derive benefit from the result of my researches, especially in one department of music, Vez Harmonic sounds, as regards the Guitar, I resolved upon writing the following little Treatise on the subject. For it appeared to me that the most eminent Guittarrists had not gone so deeply into the matter as they might have done. Instead of merely giving the harmonic sounds in

a Table. I thought I could enable you to acquire a perfect know-  
 ledge of the Harmonies & in a more pleasing way by giving a  
 few pretty Airs in harmonic sounds in the most effective keys -  
 occasionally throwing out such remarks and giving such  
 explanations as might be found useful - I accordingly about  
 a fortnight ago commenced the following Treatise, which I  
 completed this day - and I dedicate the Worke to you as you  
 like myself are a passionate admirer of this charming &  
 Instrument & will appreciate my attempt to afford you  
 all the information I had from long study attained.

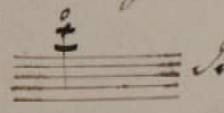
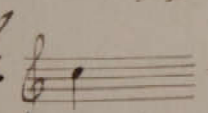

Ever your  
 Most Sincere friend  
 / Signed / J. A. Hudston

Copied from the original letter by  
 Nicholas, a poor East Indian


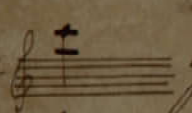




Illustrations of the Harmonic sounds on the Guitar as exemplified in the following scales & exercises in various Keys. - N. B. The upper figures denote the Frets and the figures below the strings on which the harmonics are made. -

Key of G.

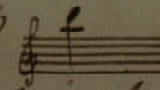
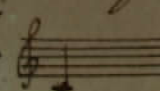
Now from the above example we find that we can run up two whole octaves with the exception of the fourth note of the lower scale viz the subdominant at C.  Is there no mode of producing this note yes - there are two distinct ways of producing this sound firstly by the process called double stopping with the fingers of both hands - thus first make this C.  in the ordinary way by stopping it at the first fret of the second string then place the first finger of the right hand over the thirteenth fret and pull the string with the thumb of the right hand well stretched behind. Any note may be made on harmonic in this way - because it is nothing more or less than dividing a string in half - & the half of any string (or 12<sup>th</sup> fret) is always the first harmonic - The second process by which you can produce the C. above alluded to is by double stopping with the left hand alone, as is done on the Violin It is thus accomplished, stop this C.  in the usual manner at the third fret



of the fifth string with the first finger then extend the fourth finger  
 at five frets distance or over the 3<sup>rd</sup> fret & you have the double octave  
 or the C. above mentioned - This process has this advantage over the  
 other - that it does not require that the right hand should move from  
 its usual position to stop the note but this latter method should be  
 resorted to with great caution as the stretch is very great as at  
my fret you stop in the ordinary way on any string with the first  
 finger of the left hand you can always produce the double octave  
 by extending, as said above the 4<sup>th</sup> finger at five frets distance It  
 follows that as you some times make this C.  at the 8<sup>th</sup> fret  
 of the sixth string you can give the harmonic C. above mentioned  
 viz  by placing lightly the 4<sup>th</sup> finger over the 13<sup>th</sup> fret since  
 the frets approach nearer the higher you ascend this last mode  
 does not require such a stretch as it is requisite to make when  
 stopping it on the 5<sup>th</sup> string - I have never had occasion to resort to  
 this last mode of making the C.  but thought it well to mention  
 it could be so effected as I am anxious to throw all the light I can  
 on the subject of these beautiful sounds and enable you to profit  
 by my researches but now with reference to the lower scale of G,  
or the first octave which I will give here again as I wish to show  
 we can introduce the 4<sup>th</sup> of the scale or this C.  I should make  
 it on the six<sup>th</sup> string in the way I last mentioned - viz on 6<sup>th</sup> string

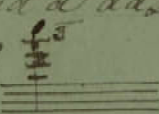
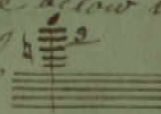
I do this for two reasons first



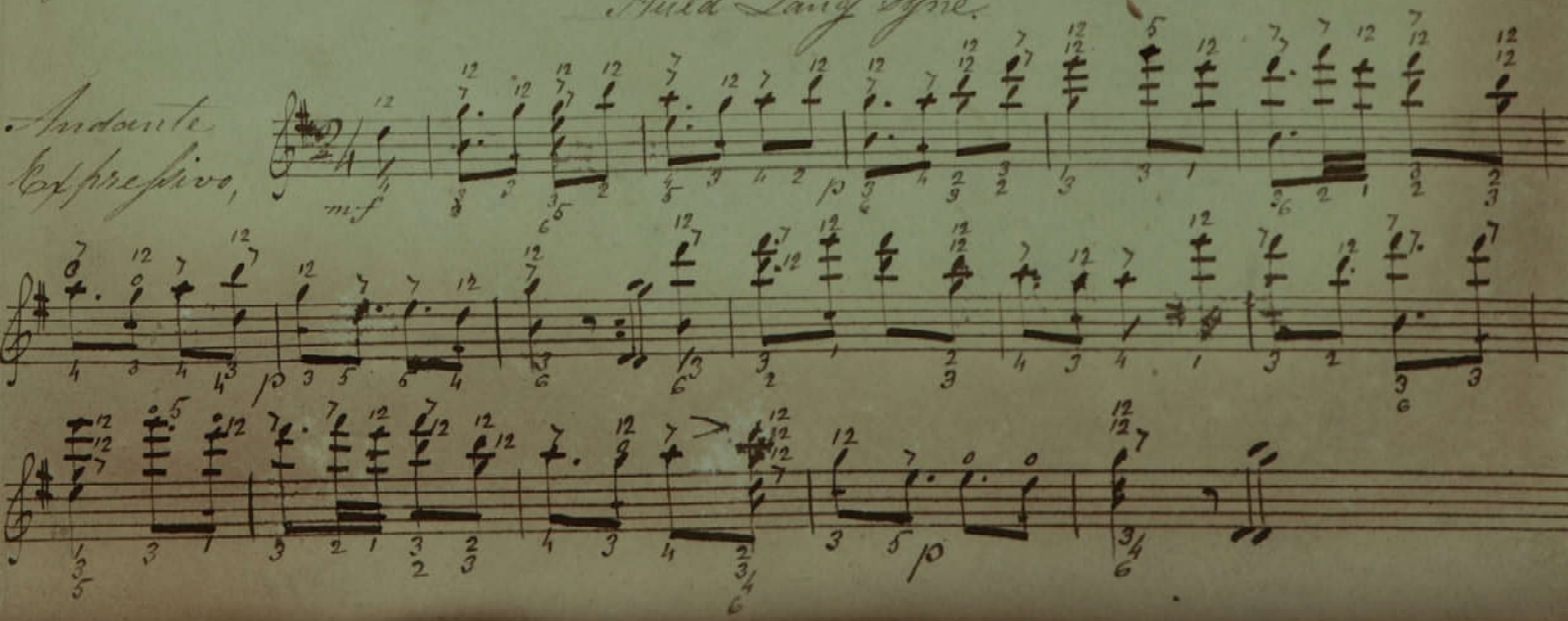
because as I make the B.  by placing the 4<sup>th</sup> finger over the 12<sup>th</sup> fret of the second string my first finger is quite prepared to stop the G.  in the usual way on sixth string & then my fourth finger is likewise prepared to rest lightly over the 13<sup>th</sup> fret for the harmonic where as did I make it on the 5<sup>th</sup> string I should have to shift my left hand to the third fret & secondly I should have to make a much greater stretch as the distance from 3<sup>rd</sup> fret to the 8<sup>th</sup> is much more than from the 8<sup>th</sup> to the 13<sup>th</sup> fret. I shall now give some double notes & chords in this key of Sol - so here goes -




A single staff of music in G major (one sharp). It contains a series of double notes and chords. Fingerings (1-5) and fret numbers (3, 8, 12, 13) are written above the notes. Some notes have a dash above them, indicating they are played slightly below the fret.

N.B. a dash under the number 3 denotes that the harmonic is made a little above the 3<sup>rd</sup> fret and a dash above the number 3 means a little below the fret - instance A.  is made a little below 3<sup>rd</sup> fret but B.  a little above the 3<sup>rd</sup> fret as no harmonic is made at the 3<sup>rd</sup> fret exactly but a little below or a little above I shall now conclude with the harmonics in G. by giving an example or two of Airs played in harmonics in this key -

Auld Lang Syne.



Handwritten musical notation for the piece 'Auld Lang Syne' in G major. It consists of three staves. The first staff is the melody, marked 'Andante' and 'Espressivo' with a dynamic marking 'mf'. The second and third staves provide accompaniment. Fingerings and fret numbers are indicated throughout.

There follows an extract from Carulli's Op 60 on the air *J'aime les fillettes* with his scale of the sounds on which I have only to observe that I should take the *h.*  on the 9<sup>th</sup> fret of the A string instead of the 4<sup>th</sup>. He does not appear to have been aware of the fact that the same harmonic sounds that are made at the fourth fret are made also at the ninth — where it is often indeed more convenient to make them <sup>than</sup> at the fourth frets. —

"Gammes de sons harmoniques qui se trouvent dans la 6<sup>me</sup> Variation.

*Cordes*



*Touches* *Touchez sons harmonie 6<sup>me</sup> Variation.*

*From Op 60 Carulli.*



I shall now give the harmonic scales in the key of A which is a more effective key than the key of G, as it will be found that there are two complete octaves in this key as I have here exemplified. —



Frets

Strings

This instrument with great difficulty and is never used but it is given  
to show what harmoniques belong to certain parts of a string

This 2<sup>d</sup> can also be made a little above 2<sup>d</sup> fret of the 1<sup>st</sup> ascending  
to my recent discovery

This 2<sup>d</sup> can also be made a little below 2<sup>d</sup> fret of the 1<sup>st</sup> where  
impact it comes out more clearly than it does below 3<sup>d</sup> fret of the 1<sup>st</sup>.  
my discovery.

This 6<sup>th</sup> can be made on two other strings viz at 5<sup>th</sup> fret of 2<sup>d</sup> string  
or 7<sup>th</sup> fret of the chanterelle

or a little below 2<sup>d</sup> fret of 5<sup>th</sup> string,

In addition to these two complete scales in A we have the following notes below in  
harmonic sounds viz

you perceive there are two  
notes wanting to complete the scale viz the third or low G and the sixth  
or this F# there could be made however by the process I before described  
of Double stopping with both hands that is to say dividing the string in half  
thus stop this G# on the 5<sup>th</sup> string in the ordinary way and at the



some time lightly put the first finger of the right hand over the 16<sup>th</sup> fret you have the octave In like manner is the *A* made on the D. string. —

Here I shall give in this key some double notes and chords,

Frets

strings

*Andantino*

3rd 4th 5th

I shall now introduce three different peeces of music in harmonics which will be found very useful particularly the two extracts from Segnani's Operas, the first piece is from my own arrangement of Boildieu's chorus from La Dame Blanche which introduces the harmonics made at 7<sup>th</sup> 9<sup>th</sup> and 12<sup>th</sup> frets and also those at the 3<sup>rd</sup> 4<sup>th</sup> and 5<sup>th</sup> frets: it will show that the 11<sup>th</sup> 12<sup>th</sup> 13<sup>th</sup> and 14<sup>th</sup> Bars can be played in different ways. —

*Sous Harmoniques.*

*allegro,*

strings

The following is extracted from Segnani's Opus 12.  
 Being the 8<sup>th</sup> Variation on a Tyrolic Air  
 Harmonica.

*Touche*

*Unpoco.*  
*Moderato*  
*Cordes*



N. B. The notes here sound an octave higher than they are written. This  
 Var. will be found an excellent lesson for teaching you all the harmonic  
 sounds that are made on the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> strings at the 5<sup>th</sup>, 6<sup>th</sup> and  
 3<sup>rd</sup> (or rather a little below 3<sup>rd</sup> frets) and as the Variation is played  
 entirely on the silver strings the harmonics are much sweeter  
 & fuller in tone than they would be if made on the other strings.  
 In the third example I am now going to give it will be observed  
 that the same harmonics as those given on the above example  
 are made at the other end of the finger Board Viz at 7<sup>th</sup> & 12<sup>th</sup>  
 frets because two or three parts are given in harmonics  
 with beautiful effect - the following is extracted from  
 Segnani's Klavier sechs Lektionen Op 20 N<sup>o</sup> 25 - which are  
 admirable as exercises in all the keys.

N. B. Pour exécuter les sons harmoniques on observera que les  
 numéros de dessous indiquent les touches et ceux de dessus les cordes.

*Andante,  
Grazioso,*

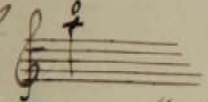





An Exercise

Flute

Strings

you will observe that in the above little exercise that the A.  is sometimes taken at 7<sup>th</sup> fret of the 4<sup>th</sup> string and sometimes at 5<sup>th</sup> fret of the 5<sup>th</sup> string and that the E.  is likewise taken in two ways viz at 12<sup>th</sup> fret of the Chanterelle or 3<sup>rd</sup> fret of the La. This is done for convenience sake. I shall now give an example showing how easy it is to play in two parts and the best example I can think of at this moment is the following Trumpet-Tune which will show that the Duo for this 2. Instruments is perfect in harmonies. -

Trumpet-Tune that used to be played at the execution of malefactors in Edin<sup>g</sup>burgh It is a plaintive one and admirably suited to the Guitar. -

Flute

Strings



Handwritten musical score for three staves. The notation includes various rhythmic values such as eighth and sixteenth notes, often grouped in beams. Fingerings (e.g., 1, 2, 3, 4, 5, 7, 12) are indicated above notes. The score is organized into measures, with some measures containing rests or specific articulation marks like 'p' (piano) and 'ff' (fortissimo). The bottom staff includes a 'Coda' section marked with a double bar line and a 'C' symbol.

I shall now give you Air with a Variation in triplets which will be found a useful study & familiarize you with the harmonies in this most effective key of D.

N.B. In this & the following Airs it is to be observed that the harmonies sound an octave higher than they are written. I write the music thus to avoid giving the very highest notes such as the sixth & seventh ledger lines which are preying to the eye.

Rouffan's Dream in some harmoniques.

6th String in D.

Andantino

Handwritten musical score for 'Rouffan's Dream' on the 6th string in D. The score is marked 'Andantino' and begins with a forte 'f' dynamic. It features a complex melodic line with many triplets and slurs. The notation includes various rhythmic values and fingerings. The score is organized into measures, with some measures containing rests or specific articulation marks like 'p' (piano) and 'ff' (fortissimo). The bottom staff includes a 'Coda' section marked with a double bar line and a 'C' symbol.



16 This Variation will be useful as showing you the harms that are made at 7<sup>th</sup>, 9<sup>th</sup>, 5<sup>th</sup> and 3<sup>rd</sup> frets.

*Frets*

1. var.

*strings*

*Frets*

2. var.

*strings*

I have given the second Variation as it is a good one for exercising you both in making tunts (as shown in the first part) & thirds as shown in the second part. It is also useful as



introducing some sixths which are repeated in the octave above I have never met with Bartellati passages in harmonics. But I will here give one of my Variations in harmonics to show that Bartellati passages can be played in harmonic sounds all these Variations I am here giving are taken from my Variations in E. Dozen shops on Rousseau's Dream I have transposed them into the key of D. to illustrate the harmonics which as I have before observed, are more effective in this key than in any other.

var. 3

I shall now give a Variation in Arpeggio which will form a good study for shifting from the 7<sup>th</sup> to 5<sup>th</sup> and 3<sup>rd</sup> frets.

var. 4

© you will see that the latter half of the third Bar is taken two ways the first time the  $F^{\#}$  &  $A$  is made at 4<sup>th</sup> & 5<sup>th</sup> frets of the 1<sup>st</sup> & 5<sup>th</sup> strings & the repetition is made at 7<sup>th</sup> frets of 2<sup>nd</sup> & 4<sup>th</sup> strings to prepare for the following Bar.

Volta, Subi



Handwritten musical notation for guitar, consisting of three staves. The notation includes various notes, rests, and fingerings. The first staff has a treble clef and a key signature of one sharp (F#). The second and third staves also have treble clefs and one sharp. The notation is dense with notes and includes many accidentals and fingerings. There are some markings above the notes, possibly indicating fingerings or techniques. The piece ends with a double bar line and repeat dots.

I shall give a Variation as an exercise in octaves. It will be found very useful in making you acquainted with the finger Board - and it will not be found difficult with the exception of the third Bar of the first part and the 2<sup>d</sup> 3<sup>d</sup> & fourth bars of second part where the two G's and two G's must be taken on the same string - viz the lower G. at 12<sup>th</sup> fret of the Sol & its octave at the fifth fret of the Sol. the lower G# must be made at 1<sup>st</sup> fret of the La & its octave a little above the second fret of the La. A little dexterity is requisite to bring these out neatly - but practice will overcome every difficulty. However, as the passage above mentioned may be found too difficult the notes given above the Bars may be substituted for them.

var. 5.

Handwritten musical notation for guitar, labeled "var. 5." and "Facts". It features a treble clef and a key signature of one sharp. The notation includes various notes, rests, and fingerings. There are some markings above the notes, possibly indicating fingerings or techniques. The piece ends with a double bar line and repeat dots.

Things

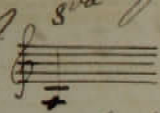
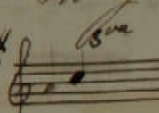



This section contains three systems of handwritten musical notation for guitar. Each system includes a main staff with notes and fret numbers (e.g., 12, 7, 5, 5, 6, 4, 3, 2, 1) and a smaller inset staff at the beginning of each system showing a specific fingering pattern with the word "easy." written below it. The notation includes various rhythmic values and articulation marks.

The following Variation in the second part will be found a useful exercise for the fingers both in the lower & upper octave & this Variation is much easier than the one just given in octaves which I consider as a studio to enable you to find out how the octaves can be made. I should not in general write such difficult passages in harmony.

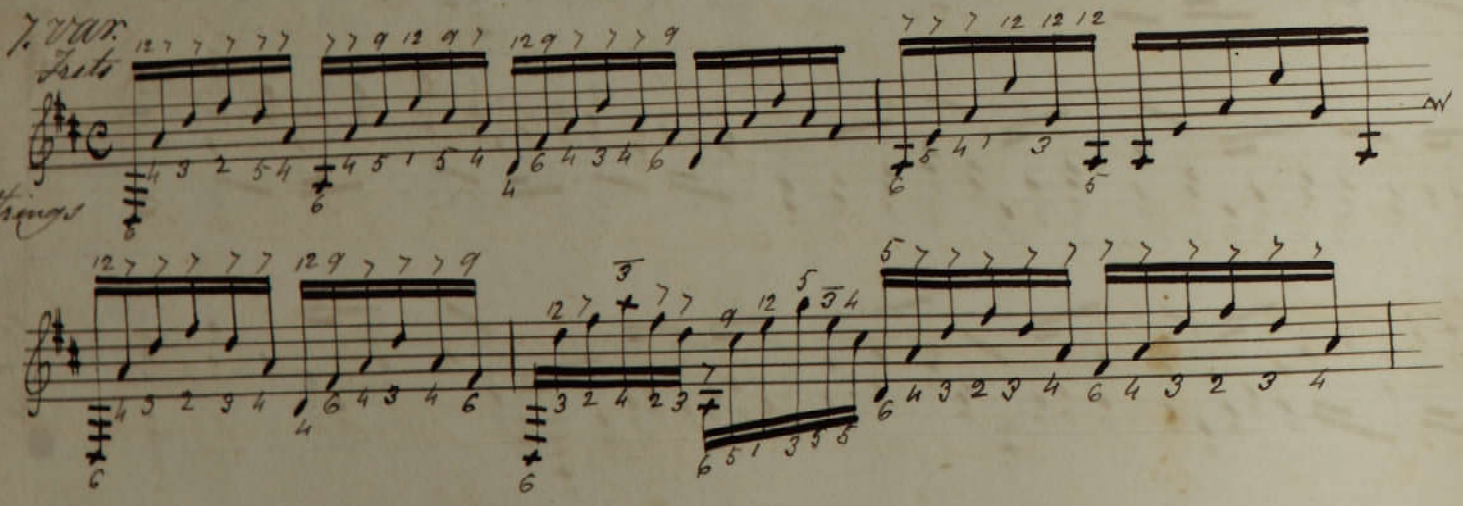
This section contains a variation of the previous exercise, presented in two systems. The first system includes a text block that reads: "the latter half of the first Bar may be played in two ways as here shown -". Below this text, there are two different musical notations for the same passage, demonstrating alternative fingering techniques. The notation includes notes, fret numbers, and fingering instructions.



I shall now conclude this Air with another Variation in Arpeggio which will bring in all the principal notes of this Key & it will show you how convenient it is to take the same notes on different strings or on different parts of the same string for example the A.  will sometimes be made at 12<sup>th</sup> fret of the 5<sup>th</sup> string & some times at the 7<sup>th</sup> fret of the 6<sup>th</sup> string and so the G.  in the first bar is taken at the ninth fret of the fifth string where as in the 1<sup>st</sup> Bar of the 2<sup>d</sup> part the G is made at the 4<sup>th</sup> fret of the 5<sup>th</sup> string and the F, that follows  is made a little below the 3<sup>rd</sup> fret of the sixth string & not at 5<sup>th</sup> fret of the string or at 7<sup>th</sup> fret of the 4<sup>th</sup> string because it was requisite in Arpeggio passages to have a string for each note of the group this last Variation is rather difficult and I never in the course of twenty four years study of the Instrument met with such passages in Arpeggio in harmonic sounds but then it need not be played fast, It is as a studio I have given it to make you perfect in the various way of giving the harmonies, but as a general rule these beautiful sounds should not be given in rapid movements. I are far more effective in slow pieces.

7. VAR.

Strings






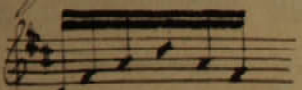
The image shows five systems of handwritten musical notation for guitar. Each system consists of a treble clef staff with notes and a bass clef staff with guitar-specific notation. The notation includes fret numbers (1-12) and rhythmic markings. The first system has a treble staff with notes and a bass staff with fret numbers 12, 12, 12, 7, 7, 7, 7, 12, 9, 7, 7, 7, 9, 12, 7, 7, 7, 7, 7, 3, 4, 5, 4, 3, 5, 7, 7, 3, 7, 7. The second system has a treble staff with notes and a bass staff with fret numbers 12, 5, 5, 5, 5, 5, 5, 7, 7, 7, 7, 7, 7, 5, 7, 7, 7, 7, 7, 3, 4, 5, 4, 3. The third system has a treble staff with notes and a bass staff with fret numbers 3, 2, 3, 6, 12, 7, 7, 7, 7, 7, 7, 7, 7, 9, 12, 9, 7. The fourth system has a treble staff with notes and a bass staff with fret numbers 12, 9, 7, 7, 7, 9, 7, 7, 7, 12, 12, 12, 12, 7, 7, 7, 7, 7, 7, 12, 9, 7, 7, 7, 9. The fifth system has a treble staff with notes and a bass staff with fret numbers 12, 7, 7, 7, 7, 7, 7, 12, 5, 3, 4, 5, 7, 7, 7, 7, 7, 9, 7, 7, 7, 7, 7, 7, 12, 12, 12.

The fingering of the harmonic sounds is never given - one must use one's fingers to stop as will be found most convenient - however with a view of assisting you in playing this last Variation I shall explain the manner in which I play it the first note I make by touching lightly the 12<sup>th</sup> fret of the 6<sup>th</sup> string with the 3<sup>rd</sup> or 4<sup>th</sup> finger the next three notes, A, D, F, being all made at the 7<sup>th</sup> fret I have only two bars lightly over the 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> strings at the 7<sup>th</sup> fret - the second group in the first bar viz. -


I play so - I place the first finger over the 7<sup>th</sup> fret of the sixth string which gives me this. and the octave or next note




Smaller with same finger over the 7<sup>th</sup> fret of the 6<sup>th</sup> string the 3<sup>rd</sup> note  
or the G. I make with the second finger over the 9<sup>th</sup> fret of the 5<sup>th</sup>


string and the G.  I make by placing the 4<sup>th</sup> finger over the 12<sup>th</sup> fret  
of the 1<sup>st</sup> string the third group in the 4<sup>th</sup> Bar.  I play


thus my 4<sup>th</sup> finger is placed over the 12<sup>th</sup> fret of the 1<sup>st</sup> string for the low  
D. the 2<sup>nd</sup> is placed over 9<sup>th</sup> fret of 6<sup>th</sup> string for the F. the 3<sup>rd</sup> next  
notes A. V. D. are made with 4<sup>th</sup> finger over 7<sup>th</sup> frets of 3<sup>rd</sup> & 4<sup>th</sup>.


strings The first group of notes in the second bar viz these  
 are played thus, the three first notes with the first  
finger

lightly over the 7<sup>th</sup> frets of the 1<sup>st</sup>, 5<sup>th</sup> & 6<sup>th</sup> strings.  
then my 4<sup>th</sup> finger bars lightly over the 12<sup>th</sup> frets of the 1<sup>st</sup>, 3<sup>rd</sup> &  
5<sup>th</sup> strings which gives me  so you will perceive the

A. commencing the group is made on the sixth string at 7<sup>th</sup>  
fret where as the same note ending the group is made on the

fifth string at 12<sup>th</sup> fret because it is the of  
playing the passage In the first group of notes in the third  
Bar.  The fourth finger placed over the 12<sup>th</sup> fret of the 6<sup>th</sup>

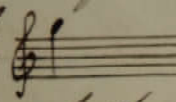
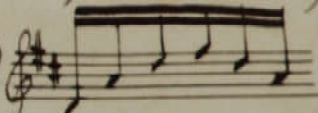
string gives me the lowest note it immediately quits that fret  
& is placed over the 7<sup>th</sup> frets of the second & 3<sup>rd</sup> strings to make  
the D. & F.  and at the same time the first finger is

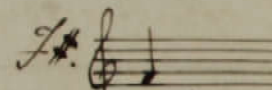
placed a little below the 3<sup>rd</sup> fret of the 4<sup>th</sup> string which gives the  
A. the second group of notes in this bar  is rather


difficult and demands great accuracy in the distances for as it




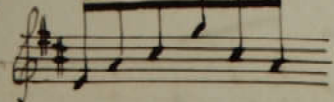
is in harmonics it cannot be played in one position of the left hand for the hand must shift after making the three first notes (which I do thus the 1<sup>st</sup> finger placed over the seventh fret of the sixth string for A. the second finger over ninth fret of the fifth string for G. & the 4<sup>th</sup> finger over the 12<sup>th</sup> fret of the first string for E.) to the fifth fret for G.

 which I make with the 3<sup>rd</sup> finger over that fret of the 3<sup>rd</sup> string I then in order to avoid shifting the hand take the E. that follows with the first finger placed a little below the 3<sup>rd</sup> fret of the fifth string & the last note G. I make with the 2<sup>nd</sup> finger over 4<sup>th</sup> fret of the 5<sup>th</sup> string and not as at the beginning of the group at ninth fret the third group of notes in the bar above mentioned. 




I play thus the second finger over the 5<sup>th</sup> fret of the sixth string gives me the low E. the three next notes A. D. F. I play with the fourth finger over the 7<sup>th</sup> frets of the 2<sup>nd</sup> 3<sup>rd</sup> & 4<sup>th</sup> strings - the low F. 

which commences the last part of that same bar I make with first finger over the 6<sup>th</sup> fret of the 6<sup>th</sup> string - and the first portion of last bar of the first part. 

I play thus the three first notes with the 4<sup>th</sup> finger barring at 12<sup>th</sup> frets of the 1<sup>st</sup> 3<sup>rd</sup> & 5<sup>th</sup> strings and the three last notes A. E. A. 

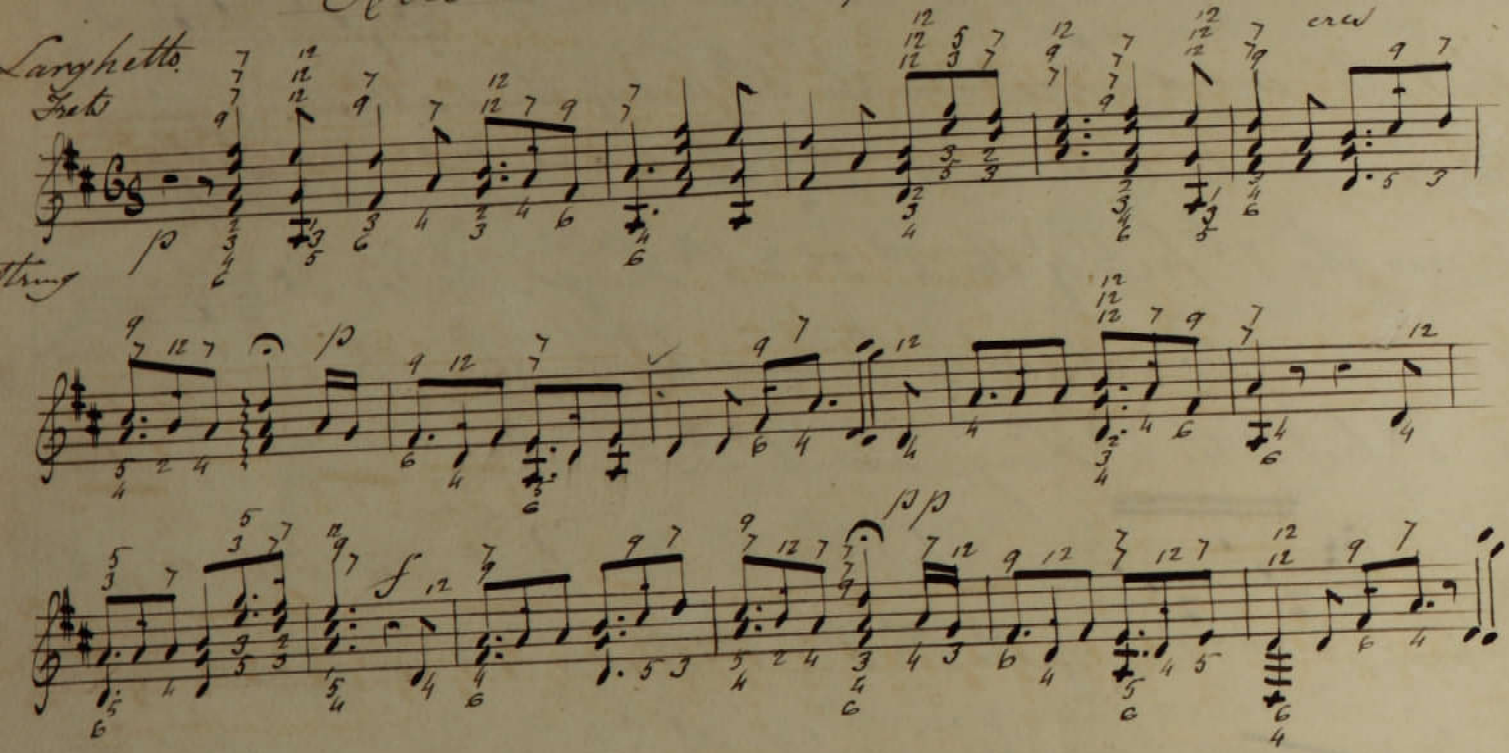
I do by barring with 1<sup>st</sup> finger over the seventh frets of the 4<sup>th</sup> 5<sup>th</sup> & 6<sup>th</sup> strings the second portion of the first bar of the second part  I play so - the E. with fourth finger over the 7<sup>th</sup> fret of the 5<sup>th</sup> string the A. with the first finger a little below 3<sup>rd</sup> fret of 6<sup>th</sup> string the G. with second finger over 4<sup>th</sup> fret of 5<sup>th</sup> string & the G.



G. with the third finger 11<sup>th</sup> over the 5<sup>th</sup> fret of the 3<sup>rd</sup> string - the first part of the following Bar containing these notes  I thus play, my fourth finger over the 12<sup>th</sup> fret of the 2<sup>nd</sup> string for low B.  then my first finger barring lightly over the fifth frets of the 2<sup>nd</sup> 3<sup>rd</sup> & 4<sup>th</sup> string produce D. G. V. B.  I shall now introduce a few Scotch Irish & Welsh Airs which are well adapted to set off a harmonic sounds as they are plaintive & to be played slowly they will be found very easy to execute so I shall not do more than number the frets & strings where the harmonics are made the first air is a most pathetic one. -

Here's a health to those far away - Scotch Air

*Larghetto*  
Frets



Ye Banks and Braes.

*Andante*  
*Expressivo*





*Go where glory waits thee, Irish Melodist*

*Facts*

*Softly*  
*Duo.*  
*strings*

*espressantando*

*lento*

*Oh! thou remember me.*

here you will remark that in commencing the Air for the last time I give it an octave lower than I did at the beginning as showing you how much can be played in harmonics in the key of D.



*Wipe the tear and the smile in thine eyes.*

*Moderato.*

Handwritten musical notation for the first piece, featuring two staves with guitar chords and fret numbers. The notation includes dynamic markings such as *pp*, *mf*, and *ppp*, and tempo markings like *mod*. The music is written in treble clef with a key signature of one sharp (F#).

*The harp once thro' Tara's Halls.*

*Fret*  
*Slow.*  
*things*

Handwritten musical notation for the second piece, consisting of two staves with guitar chords and fret numbers. The tempo is marked *Slow.* and the piece is written in treble clef with a key signature of one sharp (F#).

*Believe me if all those endearing young charms.*

*With Feeling*

Handwritten musical notation for the third piece, featuring two staves with guitar chords and fret numbers. The tempo is marked *With Feeling* and the piece is written in treble clef with a key signature of one sharp (F#).

Welsh Air For Mary Anne

Molto.

Musical notation for the first system, including fingerings (7, 9, 10, 12, 7, 9, 7, 7, 7) and chordal figures (5, 3, 5, 4, 0, 2, 4, 0, 0, 0, 3, 4, 6). The word "chorus" is written above the staff.

Musical notation for the second system, including fingerings (5, 7, 7, 7, 3, 5, 5, 5) and chordal figures (3, 5, 2, 3, 12, 7). The word "chorus" is written above the staff.

Miss Viallet

cannot be made except by stopping the 5<sup>th</sup> fret of 3<sup>rd</sup> string with the Thumb for G. & the 12<sup>th</sup> fret of 2<sup>nd</sup> string for B. with the 4<sup>th</sup> finger & even then the stretch is very great so perhaps the lower note had better be omitted. -

The rising of the Lark. Welsh air

Moderato,

Musical notation for the first system of the second piece, including fingerings (7, 7, 12, 9, 7, 7, 9, 12, 7, 7, 7, 12, 12) and chordal figures (3, 4, 3, 6, 3, 4, 6, 3, 5, 6, 5, 4, 3, 6).

Musical notation for the second system of the second piece, including fingerings (7, 7, 7) and chordal figures (2, 4, 3, 6, 3, 4, 6, 3, 5, 6, 5, 4, 3, 6).

Musical notation for the third system of the second piece, including fingerings (7, 3, 4, 5) and chordal figures (2, 4, 5, 0, 0, 0, 5, 4, 6).



I shall now conclude with a piece from Rossini  
Opera of Tancredi & God save the King.  
Plaudite O populi.

Tutti

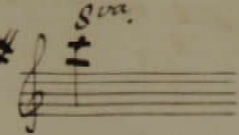
Moderato,

string

The image displays a handwritten musical score for string instruments, consisting of six staves. The score is written in a single system and includes various musical notations and annotations:

- Staff 1:** Features a melodic line with notes and rests, accompanied by a bass line. Above the staff, the word "Tutti" is written. Below the staff, the tempo "Moderato," and the instrument type "string" are indicated. The music includes several measures with notes and rests, and some measures have numbers (7, 12, 9) written above them.
- Staff 2:** Continues the melodic and bass lines. It includes a measure with a forte dynamic marking "f".
- Staff 3:** Shows further development of the melodic and bass lines, with various note values and rests.
- Staff 4:** Includes a measure with a piano dynamic marking "p".
- Staff 5:** Continues the melodic and bass lines, with various note values and rests.
- Staff 6:** The final staff of the piece, ending with a double bar line.

The score is written in a clear, legible hand, with various musical symbols such as clefs, notes, rests, and dynamic markings. The paper shows signs of age, with some discoloration and a small stain near the end of the fifth staff.

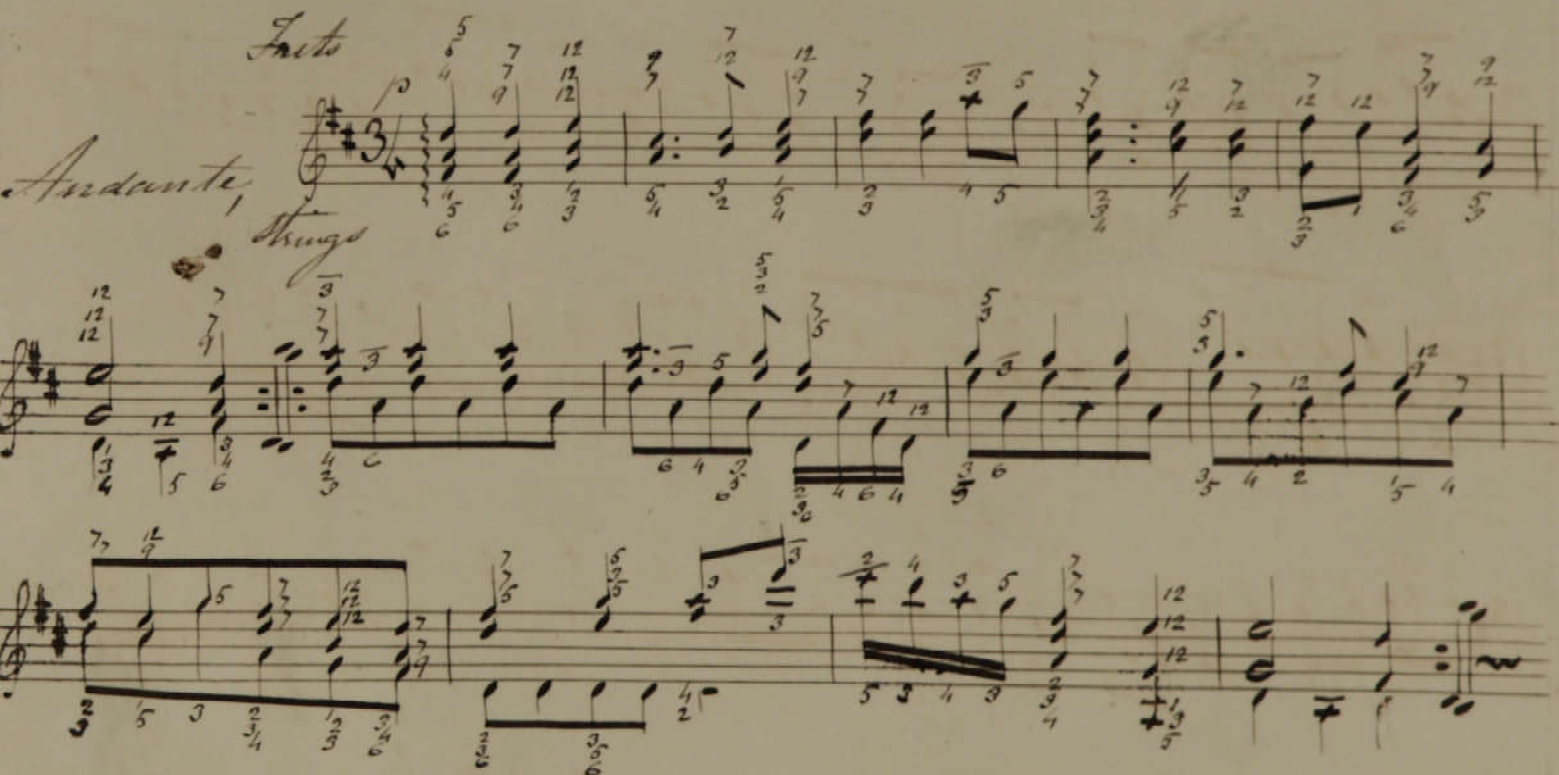
This movement of Rossini I consider an excellent study for it brings in thirds sixths and octaves and the new harmonic sound I discovered Viz. the one made a little above the second fret on the octave to the harmonic made at the 4<sup>th</sup> fret of the 5<sup>th</sup> string being the C<sup>#</sup>  this enables me to introduce the upper octave just as it is written for the Piano Forte, I find no Guitars give the harmonics so distinctly & full as Sori's Guitars.

God save the King

*Facts*

*Andante,*

*Strings*


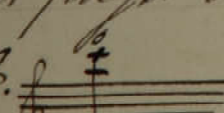


For further examples of what can be done in harmonic sounds in the key of G. I refer you to Sori's admirable *Studio* N<sup>o</sup> 21 in his Opera 29 to A Brown set of 6. Divertimento comprising a new system of Natural harmonics with an explanatory scale & lastly to my arrangement in harmonics of *Handel's Funeral March* from the



With Shave here given in the key of  $\text{D}$ . will be sufficient to show how these beautiful sounds may be produced in chord of varied harmony and that one can always play in two & three parts and even sometimes in four. —

I have now given you the harmonic sounds in the three best keys for them Viz.  $\text{G}$ ,  $\text{D}$ . and  $\text{A}$ . perfect scales could not be made in the ordinary way in harmonics in other keys with the exception of the key of  $\text{F}$ . in which key by tuning the sixth string to  $\text{F}$ . / as I do very frequently do when playing in this key / you can produce a whole octave with the exception of the fourth note from the Tonic or  $16^{\text{th}}$  which note however can be given by double stopping in the manner done on the Violin I will here give the scale in  $\text{F}$ .

The  $\text{Bb}$  or  $4^{\text{th}}$  note of the scale I make on the  $6^{\text{th}}$  string by the first finger stopping the low  $\text{Bb}$   at  $5^{\text{th}}$  fret I then extend the  $4^{\text{th}}$  finger lightly five frets distant or over the  $10^{\text{th}}$  fret which gives the double octave a bore or the  $4^{\text{th}}$  in the scale. I then quit that double stop & back my first finger over / or, rather a little below /  $3^{\text{rd}}$  fret for the following note  $\text{C}$ .  these double notes can be made quite easily in this key. — Viz. —





# The last Rose of Summer.

*Andante,*

Double Stop

Thumb over 5<sup>th</sup> fret for the 7<sup>th</sup>.

Double Stop

8<sup>va</sup>

63

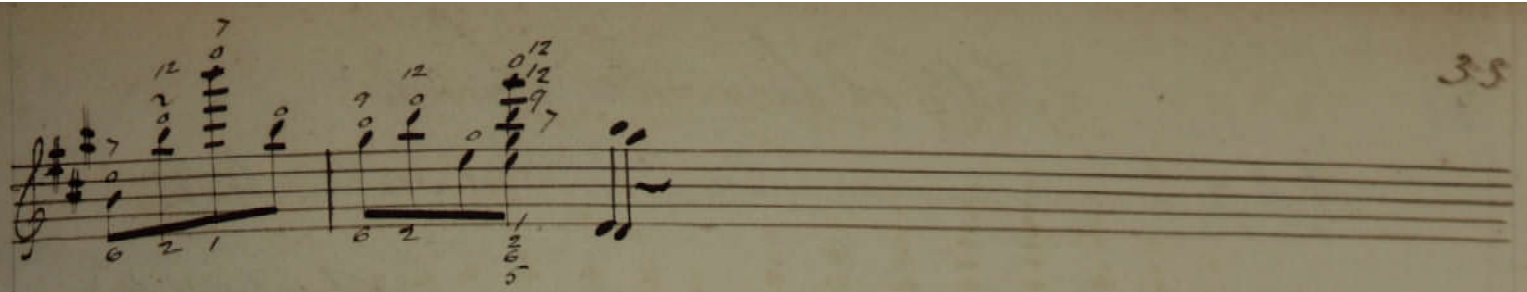
12<sup>th</sup> pounce put

lightly over 5<sup>th</sup> fret the lower note made with 4<sup>th</sup> finger just over 12<sup>th</sup> fret of the 6<sup>th</sup> string.

The new harmonic sound I recently discovered a little above the second fret of the 5<sup>th</sup> and 6<sup>th</sup> strings enable me to play the perfect upper scale of E, as well as that of A, and D, which two latter I have given already here is the scale in four sharps. —

## Notes in the lower octave.

Exercise



I do not give scales in any other keys such as G. & because one could not give them without being obliged to resort to double stopping for several notes. I have omitted giving a Table of the harmonic sounds as every guitarist should have Carullis method. Aguado's excellent Instructions & Sor's admirable Treatise however as I wish to make my little work as complete as I can, & save you the trouble of referring to the abovementioned Works I will here give the Table of the harmonic sounds of every string. N. B. a dash under the number  $2^{\underline{2}}$  or  $3^{\underline{3}}$  means that the harmonic is made a little above the  $2^{\text{d}}$  or  $3^{\text{d}}$  frets & the dash over the number  $\overline{2}$   $\overline{3}$  signifies that the harmonic sound is made a little below the second or third frets - it being remembered that no harmonic sound is made exactly at third frets. -

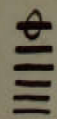


# Table of harmonic sounds.

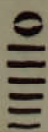
N.B. The harmonics sound an octave higher than written here.

	12 <sup>th</sup> Frets.	7 <sup>th</sup> Frets	5 <sup>th</sup> Frets	11 <sup>th</sup> Frets	3 <sup>rd</sup> frets little below
hautecorolle,					
1 <sup>st</sup> and 2 <sup>nd</sup> string.					
3 <sup>rd</sup> string.					
4 <sup>th</sup> string.					
5 <sup>th</sup> string.					
6 <sup>th</sup> string.					

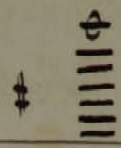
A little above 3<sup>rd</sup> fret, never used,



A little below 2<sup>nd</sup> fret never used,



At 2<sup>nd</sup> fret never used,



never used,

never required,

never used.

never used,

never used.

never used.

useful.

I find this note comes more clearly than it does on the 1<sup>st</sup> string 3<sup>rd</sup> fret.

Not required or you have it on the 1<sup>st</sup> string at 5<sup>th</sup> fret.

Seldom if ever used as you have on the 1<sup>st</sup> string 5<sup>th</sup> fret.

Not required, as you make it on the 4<sup>th</sup> string 3<sup>rd</sup>.



Never required to be made in this way as this B. is made on the 1<sup>st</sup> string 7<sup>th</sup> fret of 1<sup>st</sup> string at 5<sup>th</sup> fret of 2<sup>nd</sup> string and at 4<sup>th</sup> fret of 3<sup>rd</sup> string.

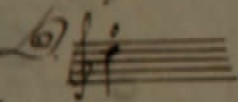

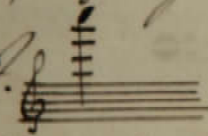
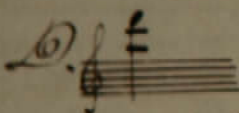




Seldom if ever made this way as you have this D. on the 2<sup>nd</sup> string at 5<sup>th</sup> fret and also on the 1<sup>st</sup> string 7<sup>th</sup> fret.


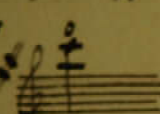





Seldom if ever made this way but either on 5<sup>th</sup> string at 3<sup>rd</sup> fret or on the 1<sup>st</sup> string at 12<sup>th</sup> fret.

Not required to be made this way as it is better when made on 1<sup>st</sup> string 4<sup>th</sup> fret or on 2<sup>nd</sup> string 2<sup>nd</sup> at 7<sup>th</sup> fret.

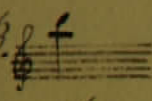


It is to be observed that all harmonic sounds made at the fourth fret  
 can also be made at the ninth fret at which latter it is often more  
 convenient to make them. In addition to all the harmonics above given I  
 recently discover'd another harmonic on the 4<sup>th</sup> 5<sup>th</sup> and 6<sup>th</sup> strings which I  
 make by putting the finger a little above the 2<sup>d</sup> fret - it gives the octave  
 above the harmonic made at 4<sup>th</sup> fret - but I never use them excepting on  
 the 5<sup>th</sup> & 6<sup>th</sup> strings as the one on the 4<sup>th</sup> string you have on the second  
 string at 3<sup>d</sup> fret - the notes I have found useful are there two   
 and  the former is made on the sixth string a little above the  
 3<sup>d</sup> fret and the latter on the 5<sup>th</sup> string at the same place. -

N. B. From the table of harmonic sounds above given it appears that  
 on any string you can produce eight harmonic sounds taking the  
 D. string for example you have at the twelfth fret the octave to the  
 open string *Hz.*  At the ninth fret the tenth, or major  
 third *F. sharp.*  At the seventh the double fifth *A.*   
 At the fifth the double octave  At the fourth the double  
 major third *F.* (same note as at ninth fret) a little below the third  
 the triple fifth *A.*  A little above the same the triple minor  
 seventh  Below the second - the triple octave  on the second  
 fret the triple ninth *G.*  it is obvious too that the harmonics at  
 the fifth fret are one octave above those at the 12<sup>th</sup> frets and also that  
 the harmonic sounds made a little below the third frets are one octave

higher than those made at the seventh frets - and further the harmonic  
 sounds made a little below the second fret is an octave higher than  
 harmonic made at the fifth fret. It also appears from the Table  
 above given that as there are several places where you can find the  
 same note you can (as Ior remarks in his treatise page 35) take  
 advantage of this circumstance to play in two or even three parts  
 harmonics for example the A.  is made some times at the 7<sup>th</sup>  
 fret of the 4<sup>th</sup> string & some times at the 5<sup>th</sup> fret of the fifth string  
 the G.  is made too in two ways Viz. either at the ninth or 11<sup>th</sup> fret  
 of the 5<sup>th</sup> string and this E.  is likewise made usually in three  
 ways Viz. either at the 12<sup>th</sup> fret of the 1<sup>st</sup> string or a little below the 3<sup>rd</sup> fret  
 of the 5<sup>th</sup> string this chord.  you make in harmonics thus the first  
 finger placed lightly over the 7<sup>th</sup> fret of the 4<sup>th</sup> string gives the A. then  
 the second finger placed over the ninth fret of the 5<sup>th</sup> string give G.  
 and the fourth finger placed over the 12<sup>th</sup> fret of the first string  
 gives the E.  In the following inversion of the chord of A.   
 in harmonic sounds the G. must be made at the 11<sup>th</sup> fret of the 5<sup>th</sup>  
 string as the upper A. is made a little below the 3<sup>rd</sup> fret of the 1<sup>st</sup>  
 string by playing the first finger there pressing the 2<sup>d</sup> finger at the  
 7<sup>th</sup> fret of the 4<sup>th</sup> string for the G. and the E. is made at the 5<sup>th</sup> fret of the  
 1<sup>st</sup> string with the 3<sup>d</sup> finger I shall in order to assist you in acquiring  
 knowledge of the Various ways in which some harmonic sounds  
 are made give the Table of those that can be made in two or three



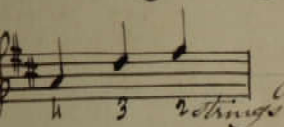
ways. I shall take first this B.  only observing that in the table I give the notes an octave lower than they sound in order to avoid using the very high ledger lines.

The following notes can be made in various ways.

Chantrelle.	7 <sup>e</sup> Touche.	3 <sup>e</sup> Corde.	7 <sup>e</sup> Touche
2 <sup>e</sup> Corde.	5 <sup>e</sup> Touche.	4 <sup>e</sup> Corde.	5 <sup>e</sup> Touche.
3 <sup>e</sup> Corde.	4 <sup>e</sup> Touche.	2 <sup>e</sup> Corde.	7 <sup>e</sup> Touche
4 <sup>e</sup> Corde.	7 <sup>e</sup> Touche	4 <sup>e</sup> Corde.	4 <sup>e</sup> Touche
5 <sup>e</sup> Corde.	5 <sup>e</sup> Touche	2 <sup>e</sup> Corde.	12 <sup>e</sup> Touche.
Chantrelle	12 <sup>e</sup> Touche	6 <sup>e</sup> Corde.	3 <sup>e</sup> Touche little below 3 <sup>e</sup> fret,
5 <sup>e</sup> Corde.	3 <sup>e</sup> Touche.	5 <sup>e</sup> Corde.	7 <sup>e</sup> Touche
		6 <sup>e</sup> Corde.	5 <sup>e</sup> Touche.

I have before observed that the same harmonic sounds made at the 4<sup>th</sup> frets can also be made at the ninth frets a circumstance quite overlooked by Carulli in his Table at page 35 of his first Instruction Book. -

I have found it useful to bear in mind that the notes rendered in the ordinary way at the seventh frets such as these on the 2<sup>nd</sup> 3<sup>rd</sup> & 4<sup>th</sup> strings



give their octaves above in harmonics at the very same frets touched lightly and also that the notes stopped in the ordinary manner at the 4<sup>th</sup> frets also give the same notes a double octave above when the finger is placed lightly over these 4<sup>th</sup> frets for example these



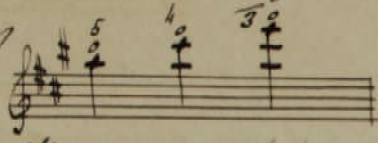
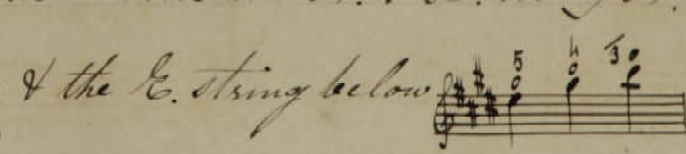
when the finger touches lightly above these 4<sup>th</sup> frets the low notes above given produce these.



another rule which will enable you to acquire easily the knowledge of harmonic sounds on the Guitar is, that the 5<sup>th</sup> 4<sup>th</sup> & 3<sup>rd</sup> frets always give the notes of the

Common chord for instance take the A. & D. string A.

& D. string



is never given, It is only requisite to know the strings & frets where you make these beautiful sounds & then consult the easiest position of the left

hand fingers - for example this harmonic sounds in 4<sup>th</sup> parts.




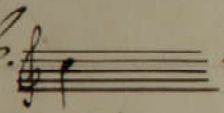
I should make thus, my first finger over the seventh fret of the 5<sup>th</sup> strings gives me this E.



I then place my second finger over the ninth



fret of the 6<sup>th</sup> string for the G $\sharp$  I then place my fourth finger over the 12<sup>th</sup> frets of the 2<sup>nd</sup> & 1<sup>st</sup> strings which give me the B & C. above, I have only one more remark to make & that is that the harmonic sounds on the silver strings are much sweeter & fuller than those made on the catgut strings for instance this  has a better effect when made on the fourth string at fifth fret than when made at the seventh fret of the third string. -

There is another method of producing harmonic sounds which enables you to make the notes harmonic which could not be done in the usual way. but this mode is only suited to slow  $\&$  passages and you can only produce one note at a time. It consists in determining the half of every length of string between the point which was to produce the sound and the bridge, by a finger of the same hand that attaches the string, whilst the other hand is employed in fingering the notes of which the harmonies yield the octaves a bow for example this  is thus made harmonic stop it in the usual way on the second string with first finger of the left hand then place lightly the first finger of the right hand over the 13<sup>th</sup> fret which is the half of the string & consequently the octave you then pull the string with the thumb of the right hand well stretched behind the finger. - But this method besides imposing the double task of being obliged to measure very accurately the distance for both hands, involves the inconvenience of being forced



to imply the whole of the right hand to play a single note and every harmonic you wish to produce costs not only the motion of the wrist but of the whole arm too and (as Sor observes in his Treatise page 34) having no point of support, it was nearly impossible for me to direct my finger with certainly exactly to the middle point of every distance, Sor afterwards observe (see page 35) that the Violin method is more promising. -

However as it is sometimes of use making the harmonics by double stopping with both hands I recommend your playing the scales I here set down. -



now to do this first finger with the left hand the notes as they are written and at the same time touch lightly the octave, of each note with first finger of the right hand & pull the strings with the Thumb of the right & the result must be that they sound the octave above in harmonic you might as send several notes higher than what I have written but there being no frets to guide one the touching the exact point with the right hand or taking the half of the string is rather difficult. I have now, my friend brought this



little Treatise to a close, and I cannot but feel convinced after all that I have written on the subject of harmonic sounds that the Guitar is without question the most scientific instrument in this world - I am fully aware that harmonic sounds can be made on the Harp but the ordinary method of doing so is awkward Very stopping the half of the string with the inside of the same that attached the string hand - This is not nearly so easy or perfect a way as the Guitar method and then I never saw any Harpist make use of the Right hand to form harmonic sounds They usually employ the left hand & can consequently only produce double notes. -

The great Harpist Boehsa in his novel effects certainly produces various harmonies on the same string as we do on the Guitar but conceive the the enormous difficulty of determining at precise with certainty the parts of a string where harmonies are made when there are no frets to guide the eye & thus enable you to touch the point required with certainty. 16<sup>th</sup> August 1841. -







and examples of thirds & sixths in the Mass of S. F. G. A. C. & D.

Thirds  
Sixths

And the following octaves are made in the usual manner according to the 1st method described in my treatise the sixth string being in D

The following thirds marked with a + can only be made according to the Harps method

The notes with + above them are made usually according to the first or ordinary method

The following sixths marked with a + can only be made by the last method or Harps method

The best

D with sixth string in D as before said at the commencement of my treatise is the most affectionate & harmonious sound as more than two octaves can be played according to the usual method. So this last or Harps method is not necessary to be resorted to when playing in D. In fact I only resort to it (the Harps method) when playing in G & C. Little

## Appendix C

Letter from Simon Honeyman to Redmond O'Toole, 14 February 2018

I don't know if any of this is of any use to you. Please Ignore the lack of punctuation, capitals and coherence, this was over twenty something years ago.

In the early to late eighties to early nineties I was a student in the academy and the most under used resource in the academy was the library, most students were not aware it existed and I don't remember anyone being encouraged to visit it .It was in the basement and run by John o Sullivan .I don't know how he ended up there but I'm sure it's an interesting story. I'm sure John had told Marion about the guitar books in the back room but she never found the time or inclination to look. I discovered the library in 1990 by accident and found some interesting LPs by Sainz de la Maza and got talking to John. He told me there were old books in the back room and some contained guitar music, so I went in to take a look.

It was like entering a neglected crypt ,dirty, dark damp ,cold ,smelly ,dusty but when I looked around there were books of guitar music on the shelves ,floor ,and window sill. When I showed some interest John suggested I might catalogue them (I think he was really looking for company) .I asked him how they got there and he told me someone bequeath them to the academy.

I was told the basement had flooded a few times and some of the books were stored on the floor so were destroyed .When I was there the window was broken so the weather still got in.

I returned with a pair of marigold gloves a dust cloth a copy book, pen, scarf (to cover my mouth)

And warm clothes and started to put all the guitar books and individual sheet music together on shelves in one place. I cleaned the dust and mould off them, wrote down the titles and numbered them in the copy book.

The more I looked the more interesting It became as the books were original printings and the composers were names all guitarists knew and still played .There is an empathy holding a book another guitarist who lived 150 years before you were born held and read from. It's like looking through his eyes. You can't help feeling some responsibility for his legacy.

I tried to get others interested but to no avail .It became a standing joke, twice a week after lessons I went to the Land that time forgot to look at the dirty books.

There were books of music for other instruments too so I tried to get other instrumentalists interested but I suppose the conditions put people off.

It's funny but the library invested in the complete works of FERNANDO SOR even though most of them were probably in the back room.

At the time concert guitarists were coming to Ireland to give masterclasses and playing newly discovered works from the classical era but I couldn't drag them in to look at the books, everyone assumed they were dross and somebody else would find the next Mozart variations somewhere else.

Somewhere cleaner, warmer and more comfortable. The assumption was if they were of any value they wouldn't have been dumped in the back room for all those years.

There were hand written scores of original solo and duet compositions by Huddleston and his treatise on harmonics also books and individual scores by other guitarist composers. Each had hand written indexes and were signed by the original owner but I couldn't find much information about him and his bequest was lost in the mists of time. The internet didn't exist in our house, now that I think about it neither did computers.

I completed my catalogue of the guitar works and it remained mine as no one had any desire to look at it. Apathy is contagious.

A year or two later John told me he had an enquiry from an American (Mike mc Cartney) asking if there was any old material relating to guitar in the library and he told him about the books .

Mike turned up with a laptop computer (impressive in 1992) and was amazed to find all this undiscovered material.

He went to Lyndsey Armstrong and said this was the best undiscovered material in Europe and it was a fantastic resource that it would put the academy library on the map. ( He was obviously much more convincing than me) .I think he embarrassed them into commissioning a catalogue of the material and did ask if I would help ,but I had been there already. Mike kept me informed about what he found out about Huddleston . Marion told me there talk about offering me a job as a librarian but I had no interest .I was told years later that I was claimed by the academy as the discoverer of the books and to be fair to Mike mc Carthney I think he mentioned me somewhere.

And that ends my rambling connection with the Huddleston collection.

Once again I don't know if it's of any use to you .

Regards Simon

## Appendix D

Letter from Andrew Robinson to Redmond O'Toole

I landed the job of guitar teacher in the Royal Irish Academy of Music in 1972 after graduating in music from Trinity College Dublin. I never was much of a guitarist, having first taught myself and then taken lessons for two years at school, and I can only conclude that having a MusB put me ahead of the competition. I stayed on until 1977 when I went away to study instrument making--bouzoukis at first, for trad players, and later viols, being primarily a viol player myself.

While at the Academy I studied guitar, taking monthly lessons from Hector Quine, whose 1971 book "Introduction to the Guitar" had impressed me greatly--indeed I still recommend it to beginners. Quine was a close friend of Julian Bream, and it was his excellent tone production that I taught. I stopped going to Quine once I had taken the (London) Royal Academy of Music teacher's diploma.

I was soon teaching 25 hours a week in the Academy. I made changes to the RIAM Local Centres guitar exam syllabus, but I never put pupils in for those, preferring the Associated Board exams. As a result of that, there is no record of my pupils' successes, which were pretty good, though I only put a minority in for exams, those who particularly asked. I shared my TCD lecturer Joseph Grocock's dislike of music exams.

Looking through the guitar music in the RIAM library, I came upon the manuscript and printed books from Huddleston's collection. Madame Pratten's instruction books were fascinating in their Biedermeier eccentricity; I wondered about making a facsimile publication of the Sor studies, but decided against it: facsimiles then were a bigger undertaking than they are now, perhaps.

What caught my eye most were the transcriptions in an immaculate hand of favourite opera excerpts, with enthusiastic notes in the margins: "Ne Plus Ultra!" I had a sharply-etched glimpse of a ginsipping colonial officer amusing himself at sunset on a verandah in distant India.

Andrew Robinson, January 2019

## **Appendix E**

Timeline of Josiah Hudleston's career in the East India Company:

1817 – Writer

1820 – Second assistant to the collector and magistrate of Tinnevely

1824 – Head assistant to the registrar of Sudder and Foujdarry Adawlut

1826 – Acting deputy registrar of the Sudder court

1828 – Deputy collector of Madras

1831 – Superintendent of Stationary

1836 – Acting and deputy collector of Madras

1841 – Chief collector of madras until retirement

1855 – Retired

1856 – Return to England (Cheltenham)

1857 – Moves to Killiney, Dublin

1865 – Death, Dublin



**Appendix F**

Photograph of J. A. Hudleston from the Pratten Manuscript

