Johann Sebastian Bach (1685-1750)

Goldberg Variations BWV 988

Aria mit verschiedenen Veränderungen

Bach and his numbers

Most composers have played with musical cryptograms at some point. Those who discover they have musically interesting initials tend to use them: Dmitri Shostakovich (D-S-C-H = D, E flat, C, B natural) and Robert Schumann (S-C-H-A = E flat, C, B natural, A)* are two such examples. Few, however, were as fortunate as Bach. B-A-C-H spells out the harmonically fascinating and symmetrical motif B flat, A, C, B natural – a sequence that appears over and over again in his music (and that of other composers to this day).

* In German notation B natural is notated by H, and E flat by Es (translated phonetically to S).

During the 1600s the cabalistic technique of using a number alphabet (A = 1, B = 2 etc) to divine hidden or parallel meanings in texts had become a fashionable interest. By calculating the sum of the letter-numbers, another text or name which had the same value could then be inferred to hold a related or parallel meaning.

While strictly forbidden for religious purposes in case it led to doctrinal error, the pastime of uncovering parallel meanings had become popular enough to spawn a small industry for printers such as Riederer of Nuremburg who offered a catalogue of over 5,000 paragrams to his customers (Ruth Tatlow, *Bach's Numbers*).

The name Bach, using one of many different number alphabets of the time, adds up to the

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	IJ	K	L	M	N

14	15	16	17	18	19	20	21	22	23	24	25
O	P	Q	R	S	T	U	V	W	X	Y	Z

Bach = 14

J. S. Bach = 41

J. S. B. = 29

Johann Sebastian Bach = 158

number 14 (2 + 1 + 3 + 8). The rather pleasing fact that J. S. Bach adds up to a palindromic 41 may not be down to pure chance: the middle name of his first wife (and cousin) Maria Barbara Bach also adds up to 41, and their first two sons W. F. Bach and C. P. I. Bach (spelled Immanuel at his christening) produce the same number, which may indicate a family tradition. In turn the initials J.S.B., W.F.B. and C.P.I.B. each add up to 29 (Tatlow).

By happy chance, Bach had the good luck to be born on 21 March 1685 (according to the Julian calendar – Protestant Germany didn't adopt the Gregorian calendar until 1700). The first four numbers of that date neatly line up with the letters of his name: 2-1-3-8 = B A C H.

Bach's name and birthdate also embody another concept – that of mathematical perfection. Perfect numbers are positive integers that are the sum of their positive divisors. Just three perfect numbers were known in Bach's time. 1+2+3 equals the first perfect number, 6, while the second, 28, is the sum of 1, 2, 4, 7 and … 14.

Lastly, a vigorous musical debate of the time centred on whether music, in order to be perfect, required a deeper but unheard structural symmetry, or whether it could be judged purely by what the listener perceived. The clearest way of calculating that symmetry was, of course, by calculating bar counts or note values numerically. Given J. S. Bach's propitious numerical inheritance it is no surprise that he came down on the side of the symmetrists. For Bach, music and numerology were always deeply entwined.

The Goldberg Variations

Bach's Aria with diverse variations, published in 1741, had two notable antecedents: *La Capricciosa* by his mentor and teacher, Dietrich Buxtehude, and Handel's *Chaconne and 62 Variations*. Using a simple eight-bar harmonic sequence, Buxtehude created 32 partitas of remarkable variety and brilliance. The same cannot be said, unfortunately, of Handel's variations. While the theme, also eight bars long, that he used is perhaps more interesting harmonically, the resulting variations are decidedly lacklustre.

Bach and Handel were born within a month of each other and just 80 miles apart. Remarkably, they never met as established composers, although it is possible they crossed paths as young men. In late 1705 Bach made an extended visit to Lübeck where Buxtehude resided, wishing 'to comprehend one thing and another about his art'. Buxtehude, the pre-eminent organ virtuoso of his time, held regular *Abendmusiken*, lavish Sunday evening concerts in the period before Christmas, which were so popular the Lübeck police were employed to maintain order during performances. The concerts drew on professional musicians from nearby Hamburg where the young Handel, then a rising star as a violinist and composer, had already seen two of his operas performed at the opera house. Bach attended these concerts, where it is likely that Handel would have been one of the performers.

There is no record of a meeting, and in later years Handel appeared determined to avoid his contemporary. In 1719 Bach, by then in Köthen, heard that Handel was visiting Halle. Bach, who deeply admired Handel, sent a message and made the 20-mile journey, only to find that Handel had left shortly before he arrived. Ten years later, Handel declined Bach's invitation to visit him in Leipzig. For Bach, known to be sensitive to personal slights, this rebuff must have been genuinely wounding.

Handel published his *Chaconne and 62 Variations* HWV 442 in 1733, just four years after that second rejected invitation. According to Professor Christoph Wolff, the unfulfilled potential of Handel's set may have inspired Bach to turn his hand to the variation form using the same

theme. Bach uses the identical harmonic sequence for the opening eight bars, but then, crucially, extends it by a further 24 bars – introducing a far richer harmonic palette with which to work.

Bach's 30 variations with a da capo aria are arranged in 10 groups of three. Every third variation with the exception of the final one is a canon, each of which ascends a single step of the scale as the sequence progresses. The first variation of each group often has elements of a dance (1 – polacca, 4 – passepied, 7 – giga, 10 – bourrée, 13 – sarabande, 19 – minuet, 22 – gavotte) or is a miniature (10 – fugetta, 16 – French overture). The second of each group is a duet, which Bach often uses as an opportunity for virtuosic display.

The variations are also divided into two halves, which are symmetrical not only in that they contain exactly equal numbers of bars, but in other ways such as the distribution of the 14 movements in ¾ time, seven in each half (Tatlow).

Those 14 movements are a typical example of how Bach interpolated one of 'his' numbers into the variations (clear to see on paper, but likely to go unrecognised by the listener). There are numerous other instances of those Bach numbers.

Variation 1 begins with a 41-note flurry in the right hand underpinned by a seven-note figure repeated four times (4 x 7 = 2 x 14 [BACH] = 28 [second perfect number]).
(See Walter Schenkman, *Tatlow's Bach and Bach's Signatures in the Goldberg Variations.*)

Variation 1

This is mirrored in the final half of **Variation 30**, the Quodlibet, where a bass line of exactly 41 notes is brought to a close by a two-bar treble line of 14 notes. The first bar of Variation 13 (the 14th movement) contains 14 notes, another of many examples of 14 being used in Bach's usual subtle way (Schenkman).

But there are moments where, uncharacteristically, Bach used his signature numbers in a more overt way. **Variation 14** is a display of almost explosive virtuosity with the composer's BACH motif alluded to in the penultimate bar.

Variation 14

If this can be interpreted as Bach immodestly asserting his brilliance, it is almost understated in comparison with Variation 29 (J S B = 9 + 18 + 2 = 29), in which bombastic opening fanfares give way to cascades of dashing triplets before finishing with the most resounding of cadences.

After this, **Variation 30**, the Quodlibet (literally 'as you please'), is a musical joke in which Bach combined two popular songs both laced with double entendre. Depending on the listener's viewpoint, it could be taken two ways. The first song is about absence: *Ich bin so lang nicht bey dir g'west* (It's been so long since I've been together with you). The second, *Kraut und Rüben haben mich vertrieben* (Cabbages and beets have driven me away), suggests a possible cause of this separation! *Kraut und Rüben* is the theme of Buxtehude's *La Capricciosa*, and it is pleasing to think that had he been alive to hear the Goldbergs, he would have been amused and flattered.

Variation 30 Quodlibet

Kraut un Rü - ben haben mich ver - trie - ben

Ich bin so lang nicht bei dir g'west ruck her, ruck her, ruck her.

However, the pianist Jeremy Denk has pointed out that this good-natured tribute to a revered mentor might, in fact, contain another message for Bach's great contemporary. One can imagine Handel turning the page after 29 variations of unsurpassed imagination, wit and sophistication (not only on his theme but emphatically surpassing his set!), only to discover the grand finale was about a windbag who ran away.

If the art of counterpoint is the combination and management of contrasting voices, Bach's Quodlibet, perhaps the most contrapuntally sophisticated variation of all, shows that his mastery of parallel meanings extended to more than just notes.

David Juritz, January 2021
www.davidjuritz.com

References
Ruth Tatlow, *Bach's Numbers*, Cambridge University Press (2015)
Walter Schenkman, *Tatlow's Bach and Bach's Signatures in the Goldberg Variations* (2003)
www.jstor.org

David Juritz violin

South African born violinist, David Juritz, studied at the Royal College of Music with Hugh Bean and Jaroslav Vanecek as an Associated Board scholar. During his studies he won all the college's major prizes for violin, including the Tagore Gold Medal.

From 1991 to 2010 he was leader of the London Mozart Players. He made many solo appearances with the LMP, including his debut at the 2006 BBC Promenade Concerts.

He has appeared as soloist and director with orchestras around the world including the English Chamber Orchestra, Royal Philharmonic Concert Orchestra, Mozart Festival Orchestra and Zurich Chamber Orchestra. In 2019 he was invited to direct the English Chamber Orchestra for their debut at the Elbphilharmonie in Hamburg. His recording of the Vivaldi Four Seasons with the LMP is regarded as one of the finest interpretations of that much-recorded work, while other recordings include Bach's Sonatas and Partitas for Violin Solo and the Brandenburg Concertos, as well as numerous chamber music recordings of works by Schubert, Szymanowski, Coleridge-Taylor and Bacewicz. His film credits as orchestra leader include the soundtracks of Mandela: Long Walk to Freedom, The Theory of Everything and The Merchant of Venice.

In 2007 he busked around the world for charity. Starting with an empty wallet he supported his 60,000 mile journey through 50 cities on six continents by playing Bach on the streets. Musequality, the charity he founded, raised over £400,000 to support life-changing music projects for disadvantaged children in developing countries.

He is the Artistic Director of the Burton Bradstock Festival and violinist of the London Tango Quintet with guitarist Craig Ogden, accordionist Miloš Milivojević, pianist David Gordon and the bass player, Richard Pryce. In 2018, together with his regular duo partner, pianist Sarah Beth Briggs and cellist/conductor, Ken Woods, he formed the Briggs Trio. Their debut recording of trios by Gal and Shostakovich received glowing reviews on both sides of the Atlantic.

David plays on a violin made by J.B. Guadagnini in Piacenza in 1748.

Craig Ogden guitar

Described by *BBC Music Magazine* as 'A worthy successor to Julian Bream', the Australian-born guitarist Craig Ogden is one of the most exciting artists of his generation. He studied guitar from the age of seven and percussion from the age of thirteen. In 2004, he became the youngest instrumentalist to receive a Fellowship Award from the Royal Northern College of Music in Manchester.

One of the UK's most recorded guitarists, his recordings for Virgin/EMI, Chandos, Nimbus, Hyperion, Sony and Classic FM have received wide acclaim.

Craig Ogden has performed concertos with many of the world's leading orchestras including the Hallé, BBC Concert Orchestra, Orquesta Sinfónica de Navarra, RTÉ Concert Orchestra, London Philharmonic Orchestra, Ulster Orchestra, Spanish Symphony Orchestra, Orchestra of Opera North, Royal Northern Sinfonia and the Royal Liverpool Philharmonic. Numerous composers have written works for him and in 2017 Craig gave the world premiere of Andy Scott's guitar concerto with the Northern Chamber Orchestra followed by the Australian premiere in Perth. He gave the world premiere of 'Il Filo', a double concerto for guitar and accordion by David Gordon with Miloš Milivojević in Summer 2019 and will be giving the world premiere of a concerto by David Knotts with the BBC Concert Orchestra.

Craig regularly appears as soloist and chamber musician at major venues, collaborating with many of the UK's top artists and ensembles such as the Nash Ensemble, Carducci Quartet and the London Tango Quintet, of which he is a regular member. He performed in the Michael Tippett concert series at the Wigmore Hall and gave several concerts at the Australian Chamber Music Festival. Craig frequently records for film and has presented programmes for BBC Radio 3, BBC Northern Ireland and ABC Classic FM (Australia).

Craig Ogden is Director of Guitar at the Royal Northern College of Music, Adjunct Fellow of the University of Western Australia, Associate Artist and Curator of Craig Ogden's Guitar Weekend at The Bridgewater Hall in Manchester and Visiting Musician at Oriel College, University of Oxford. Craig Ogden plays a 2011 Greg Smallman guitar and strings made by D'Addario.

Tim Hugh cello

Tim Hugh is recognised as one of the finest cellists of his generation. After winning two medals, including the Bach Prize, at the Tchaikovsky Competition in Moscow, he has appeared with many of Europe's leading orchestras and worked with conductors including Boulez, Haitink, Rostropovich, Menuhin, Pappano, Previn, Sir Georg Solti, Sir Colin Davis and Sir Andrew Davis. He has toured extensively and also appeared in the Aldeburgh Festival and the BBC Proms in London.

After a year at Yale, studying the cello with Aldo Parisot, he gained his MA at Cambridge reading Medicine. Throughout this period he continued his cello studies with William Pleeth and Jacqueline du Pré. In 1995 he was appointed Principal Cellist of the London Symphony Orchestra (LSO), with whom he immediately appeared as soloist with Pierre Boulez, standing in for Rostropovich.

Tim Hugh's recordings include concertos by Bliss, Boccherini, C. P. E. Bach, Britten, Finzi, Hofmann, Holst and Walton, the last being shortlisted for a Gramophone Award. Other recordings include Bach's Suites, Britten's Suites, Beethoven's Sonatas, Tavener's Svyati, and Brahms's Double Concerto with Haitink and the LSO.

With Maestro Valery Gergiev, he gave the UK premiere of Tishchenko's Cello Concerto with the LSO at the Barbican, going on to premiere it at the Berlin Philharmonie and the Rotterdam Festival. In 2018 Tim took up the position of joint Principal Cello at the Royal Opera House, Covent Garden.

Notes on this transcription

I'm aware of my audacity in transcribing Bach's Goldberg Variations. In fact, soon after starting work I realised it was an impossible task. Nevertheless, having already offered it to a small but delightful concert series in Brightlingsea, the prospect of withdrawing was too embarrassing to contemplate, so I persevered.

The dilemma faced by any arranger of Bach is to stay true to the character of his music while knowing he would have been far bolder and more imaginative. For this version, I have attempted to remain within a sound-world that he would have found familiar.

I did, however, have two factors on my side: Bach's sublime and rigorous counterpoint and, in Craig Ogden, a virtuoso guitarist whose technical accomplishment is matched only by his Aussie ability to remain unruffled in the face of any challenge. I would also like to thank Colin Kirby-Green of Studio Music, Brightlingsea, for putting me on the spot, and Andrew Walton, a great friend and wonderful producer, for his support and encouragement in the making of this recording.

Lastly, a special thanks to my wife, Jane. As I sat at the kitchen table making this arrangement, we discovered that my work rate is considerably slower than Bach's must have been. I'd like to thank her for many months of indulgence and support.

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Goldberg Variations BWV 988
Aria mit verschiedenen Veränderungen
Arranged Juritz

David Juritz violin
Craig Ogden guitar
Tim Hugh cello

1.	Aria	04:27
2.	Variatio 1. a 1 Clav.	01:57
3.	Variatio 2. a 1 Clav.	01:44
4.	Variatio 3. Canone all' Unisuono. a 1 Clav.	02:07
5.	Variatio 4. a 1 Clav.	01:07
6.	Variatio 5. 1 ô vero 2 Clav.	01:43
7.	Variatio 6. Canone alla Seconda. a 1 Clav.	01:09
8.	Variatio 7. a 1 ô vero 2 Clav. al tempo di Giga	02:16
9.	Variatio 8. a 2 Clav.	02:11
10.	Variatio 9. Canone alla Terza. a 1 Clav.	01:47
11.	Variatio 10. Fugetta. a 1 Clav.	01:35
12.	Variatio 11. a 2 Clav.	01:52
13.	Variatio 12. Canone alla Quarta. a 1 Clav.	02:22
14.	Variatio 13. a 2 Clav.	07:03
15.	Variatio 14. a 2 Clav.	02:34
16.	Variatio 15. Canone alla Quinta. a 1 Clav. (in moto contrario) andante	04:13
17.	Variatio 16. Ouverture. a 1 Clav.	02:44
18.	Variatio 17. a 2 Clav.	02:10
19.	Variatio 18. Canone alla Sexta. a 1 Clav.	01:24
20.	Variatio 19. a 1 Clav.	01:12
21.	Variatio 20. a 2 Clav.	02:08
22.	Variatio 21. Canone alla Settima. a 1 Clav.	02:28
23.	Variatio 22. a 1 Clav. alla breve	01:21
24.	Variatio 23. a 2 Clav.	02:11
25.	Variatio 24. Canone all' Ottava. a 1 Clav.	02:39
26.	Variatio 25. a 2 Clav. adagio	08:15
27.	Variatio 26. a 2 Clav.	02:19
28.	Variatio 27. Canone alla Nona. a 2 Clav.	01:56
29.	Variatio 28. a 2 Clav.	02:19
30.	Variatio 29. a 1 ô vero 2 Clav.	02:30
31.	Variatio 30. Quodlibet. a 1 Clav.	01:38
32.	Aria da capo	02:19
	Total playing time	79:40