

10. John Cage

Sonatas and Interludes for Prepared Piano: Sonatas I–III

(For Unit 6: Further Musical Understanding)

Background information and performance circumstances

John Cage (1912–92) is now recognised as one of the most influential figures in twentieth-century music, although in his own time he was widely maligned and misunderstood, almost inevitably as he questioned so many of the fundamentals of western music.

His principal achievements were to:

- develop the use of percussion
- exploit elements of chance and indeterminacy in performance
- explore new sound sources (including the prepared piano)
- use new forms of graphic notation
- be open to the influence of eastern philosophy on western art, both in his music and in his extensive writings.

During the late 1930s, Cage moved towards composing music for percussion instruments. He considered rhythmic duration to be the most significant of the musical elements. Consequently, the system that Cage developed for giving rhythmic structure to music depended on using mathematical proportions to govern both the large-scale and small-scale dimensions of a work. Cage described his technique of rhythmic structure as ‘micro-macrocosmic’; it was first used significantly in the *First Construction (in Metal)*, and then it dominated his compositions up to and beyond the *Sonatas and Interludes*.

Composition for percussion and for modern dance led to the invention of the prepared piano. From the late 1930s, Cage was the musical director for a number of dance companies, eventually leading him to work for Merce Cunningham, who required him to write music to a predetermined number of beats, not necessarily organised or regular in terms of metrical schemes.

In 1940, he was asked to compose music for a new dance, *Bacchanale*, evocative of African culture, by Syvilla Fort. Finding that there was no room for a percussion ensemble, Cage turned to the piano as his sound source. He had encountered plucked and strummed sounds in the music of Henry Cowell, but here he extended the idea by placing bolts, screws and fibrous weather stripping between the strings. Cage subsequently wrote many works for prepared piano, exploring the effects of different materials, different placements, use of pedals, changing of pitch and timbre and the combination of effects.

Sonatas and interludes

The *Sonatas and Interludes* (1946–48) were the culmination of Cage’s early work and brought together many aspects of music and philosophy that were preoccupying him up to the end of the 1940s. The ordered conception and the variety of technique, mood and colour that it presents are reminiscent in some ways of Bach’s *Well-Tempered Clavier* or Chopin’s

24 Preludes, and it is certainly as important to Cage's output as these other works are to their composers. As such, it seems to owe a significant debt to tradition, but at the same time it is a masterpiece of the unconventional in the twentieth century.

Work was interrupted in 1947 by the composition of the ballet *The Seasons*, but finally completed early in 1948. Cage referred to the *Sonatas and Interludes* as 'intentionally expressive compositions', because they have an extra-musical inspiration, depicting the spiritual and emotional states described in Ananda Coomaraswamy's work *The Transformation of Nature in Art: The Dance of Shiva*. The content refers to the permanent emotions of Indian aesthetics: heroic, erotic, wonder, rejoicing, anxiety, fear, anger, loathing and the tendency of all of these emotions to resolve towards one other emotion, a state of tranquillity. Cage did not specify how he had represented these emotions, but it has been suggested that each movement represents a single emotion and that towards the end of the cycle the movements become increasingly calm and tranquil.

When Cage first developed the prepared piano he expected the sounds he was devising to be able to be repeated in successive performances. As time went by, he came to realise that not only pianists, but pianos as well, are unique and that every performance would have its own characteristics; he appreciated that he would be unable to 'possess' the sounds he had created. This acceptance fell in line with his interest in Zen philosophy and his later view that life is not intended to consist of repetitive actions and experiences and that things are to be enjoyed as they happen. This attitude led to the adoption of indeterminacy in his compositions.

Performing forces and their handling

With the development of the prepared piano, Cage had created a percussion ensemble capable of being performed by one player. It had the potential for sounding like an orchestra of highly original sounds, but with an extraordinarily subtle range of dynamic and timbral nuances. What was particularly fascinating was the possibility of combining new and old sounds, and that the instrument was capable of a richly colourful spectrum of sounds which could be melodic as well as percussive.

In a 1949 interview, Cage outlined four ways in which preparing the piano affects the sound.

- It quietens it.
- It changes its timbre.
- It splits it into two or three sounds.
- It shortens its duration.

He also emphasised that the alteration to the sound must be complete, otherwise, 'like a well-known person appearing in costume, there's something clownish about it'. Despite such detailed instructions, Cage also suggested that there is no absolutely strict plan to adhere to: 'if you enjoy playing the *Sonatas and Interludes* then do it so that it seems right to you'.

Texture

The prepared piano is an intimate instrument which demands music that is introspective and sensitive. In *Sonatas and Interludes* Cage explored a subtly coloured world in which space played a vital part in allowing the timbres of his instrument to tell. Musical textures relate to

the number of musical lines sounding, but are affected by other elements of music including rhythm, tempo and timbre. Here, Cage carefully manages his lightweight textures in order that the delicate colours of his instrument are heard to their best. One of the most skilful features is his handling of silence. The result is a fragile world in which the spaces between gestures are just as important as the gestures themselves.

The textures in these sonatas are often sparse. Some types of texture are as follows:

- Homophonic chords (Sonata I, bar 1)
- monophony (Sonata II, bar 1)
- two-part homorhythm (Sonata II, bar 10)
- treble movement over static accompaniment such as ostinato or pedal note (Sonata II, bar 17; Sonata III, bar 1)
- layered textures (Sonata II, bar 30).

Structure

The twenty movements forming *Sonatas and Interludes* were not composed in sequence but were later organised symmetrically; every group of four sonatas is separated by an interlude, with the centre marked by two interludes. The term 'sonata' refers back to Baroque sonatas such as those composed by Scarlatti, consisting of a single movement in binary form. Most, but not all, of the Sonatas are in binary form (including Sonatas I-III), with some having ternary or four-part structures or else being through-composed.

The micro-macrocosmic rhythmic structure depends on relationships between numbers which then govern every aspect of the duration of the music. It produced a perfect symmetry which related the large-scale to the small and the small-scale to the large, in the same way as fractals do in mathematics, nature and art; fractals occur when a large shape can be broken down into fragments that have exactly the same shape (as in snow crystals and ferns) as the large shape. Cage found this a particularly satisfying way of structuring his music because in doing so his art was reflecting nature – a key feature of Coomaraswamy's teaching.

In practice, this meant that for each movement Cage would select a different number as a basic unit and divide it into several varied proportions (for example, in Sonata III the basic unit is $8\frac{1}{2}$ and this is divided into 1, 1, $3\frac{1}{4}$, $3\frac{1}{4}$). These figures would then govern the length of the whole movement, its sections and phrases, and therefore each level of duration related to all the others. Such a system was first used in *First Construction (in Metal)* in 1939, and subsequently became an essential ingredient of many of Cage's compositions. In *Sonatas and Interludes* he used fractions and irregular proportions for the first time, giving rise to some complex durations.

Other aspects of the structure are less easy to define as there is little thematic or motivic repetition, neither is there much contrast within each movement.

Micro-macrostructure in Sonatas I-III

Note that all three sonatas work on identical principles, but with different basic units and structural proportions.

Sonata I

- The length of each of the component parts relates to the number 7.
- The Sonata uses seven-crotchet units in multiples of 4 1 3; 4 1 3; 4 2; 4 2.
- The internal structure is as follows:
 - Bars 1-7 4 x 7 crotchets
 - Bar 8 1 x 7 crotchets
 - Bars 9-12 3 x 7 crotchets [Repeated]
 - Bars 13-18 4 x 7 crotchets
 - Bars 20-26 2 x 7 crotchets [Repeated].
- So, overall, the binary structure is composed of 2 sections of 56 and 42 beats.
- Note that there is a missing quaver because of the 9/8 in bar 11. There is, however, a compensating ritardando.

Sonata II

- The length of each of the component parts relates to the number 31.
- The Sonata uses 31-crotchet units in multiples of 4,2; 4,2; 9½; 9½.
- The internal structure is as follows:
 - Bars 1-9 1 x 31 crotchets
 - Bars 10-14 ½ x 31 crotchets [Repeated]
 - Bars 15-23 1 X 31 crotchets
 - Bars 24-32 1 x 31 crotchets
 - Bars 33-37 1 x 11½ crotchets [Repeated].
- So, overall, the binary structure is composed of two sections of 46½ and 73½ beats.
- Note the frequent presence of 3/8 bars, many of them silent, which punctuate the phrases, and the departure from the underlying pattern at the close.

Sonata III

- The length of each of the component parts relates to the number 34.
- The Sonata uses 34-crotchet units in multiples of 1; 1; 3¼; 3¼.
- The internal structure is as follows:
 - Bars 1-8 1 x 34 crotchets [Repeated]
 - Bars 9-32 3¼ x 34 crotchets [Repeated].
- So, overall, the binary structure is composed of two sections of 34 and 110½ beats.

Tonality

A major result of preparation is that the tonal relationships of scale or key are absent, and any preconceived notions of tonality formed on the basis of the notation alone are destroyed by the actual sounds produced.

Broadly, this means that because the prepared piano does not lend itself to conventional tonality the music cannot be expected to explore contrasts of key and modulation, nor necessarily to identify tonal centres. In practice, though, there are vestiges of tonality: passages repeat themselves, thereby giving emphasis to certain pitches, phrases approach cadence points with a sense of closure given by rhythm and stepwise movement, and the pitched notes that do exist often form pentatonic patterns that are exploited melodically and suggested a tonal centre. One feature of conventional tonality that is completely avoided, however, is the marking out of cadences by harmonic progression; in Sonatas I-III cadence points are definitely not articulated by chord progression.

Harmony

In 1946, Cage dismissed harmony as a 'tool of western commercialism', observing that it had become a device used in western music to make music impressive and grand, but noting that simple cultures avoided it, preferring to focus on the more natural elements of music: pitch, volume, timbre and duration.

The very nature of *Sonatas and Interludes* negates the value of harmony as a functional resource in the traditional sense. The idea of a continuous flow of harmonic progression moving between hierarchical chords, leading to modulation and creating tension and resolution is entirely foreign in an environment in which it is the colours of percussive sounds and their interaction that dominate the musical effect.

There are, however, some primarily 'harmonic' moments in Sonata I:

- G⁷ chords of opening
- parallel chords at bar 20.

Melody

Melody is one of the most significant features of Cage's style in *Sonatas and Interludes*. General features of melody include:

- some immediate repetition of patterns, but these are not usually recapitulated later
- short statements with defined shapes and phrases separated by rests
- arch-shaped melodies are common: see Sonata I, bars 15-16; Sonata II, bars 1-2
- limited number of pitches, sometimes suggesting pentatonicism: see Sonata II, bars 1-8
- Some chromatic movement in Sonata III bar 18
- a tendency to use conjunct movement: see Sonata III
- Decorative use of grace notes and rhythmic embellishment

- in Sonata III in particular motifs are treated with familiar melodic devices: such as repetition, sequence, inversion, augmentation.

Rhythm and metre

Durations have been discussed in the section on structure. This section concerns the more basic rhythmic features.

- Rhythmic ideas may repeat immediately but are not recapitulated as the music progresses.
- Patterns are placed unpredictably against the metre.
- Irregular groupings of rhythm are common and sometimes obscure the natural pulse.
- Off-beat effects can be seen eg. Sonata II bar 4.
- In each sonata there is a variety of types of rhythm pattern, from sustained or static to fast-moving and decorative.
- Expected stresses are often displaced, causing strong beats to be unclear and the metre to be vague. However Sonata III makes use of a more regular pulse.
- Metre changes frequently, usually prompted by the demands of structural rhythm.
- Irregular metres are used freely, again in order to satisfy the requirements of structural rhythm.
- Significant periods of silence punctuate each sonata.

Further reading

Richard Kostelanetz (ed.), *John Cage: Writer (Previously Uncollected Pieces)* (Limelight Editions, New York, 1993)

David Revill, *The Roaring Silence: John Cage: A Life* (London, 1992)

James Pritchett, *The Music of John Cage* (Cambridge, 1994)

James Pritchett, *Six Views of the Sonatas and Interludes* (New Jersey, 1995)

David Nicholls (ed.), *The Cambridge Companion to John Cage* (Cambridge, 2002)

Daniel Felsenfeld, *Sonatas and Interludes for Prepared Piano*,
(Andante website: <http://www.andante.com/article/article.cfm?id=10647eld> 2001)

Recordings

John Cage, *Sonatas and Interludes*, Markus Hinterhäuser, (col legno, 1996)

John Cage, *Sonatas and Interludes*, Maro Ajemian (NWCRI 2007)