

This is a repository copy of *Time and Ensemble Dynamics in Indeterminacy: John Cage's Concert for Piano and Orchestra*.

White Rose Research Online URL for this paper: https://eprints.whiterose.ac.uk/176380/

Version: Published Version

Book Section:

Payne, E orcid.org/0000-0003-2109-8126 (2021) Time and Ensemble Dynamics in Indeterminacy: John Cage's Concert for Piano and Orchestra. In: Doffman, M, Payne, E and Young, T, (eds.) The Oxford Handbook of Time in Music. Oxford Handbooks . Oxford University Press , pp. 506-526. ISBN 9780190947279

https://doi.org/10.1093/oxfordhb/9780190947279.013.17

© Oxford University Press 2022. Reproduced in accordance with the publisher's self-archiving policy.

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



The Oxford Handbook of Time in Music

Mark Doffman (ed.) et al.

No cover image available

https://doi.org/10.1093/oxfordhb/9780190947279.001.0001

Published: 2021 **Online ISBN:** 9780190947309 **Print ISBN:** 9780190947279

CHAPTER

24 Time and Ensemble Dynamics in Indeterminacy: John Cage's Concert for Piano and Orchestra •

Emily Payne

https://doi.org/10.1093/oxfordhb/9780190947279.013.17 Pages 505-C24.P109

Published: 08 December 2021

Abstract

This chapter examines ensemble dynamics and time consciousness in indeterminate music, using John Cage's *Concert for Piano and Orchestra* (1957–8) as a case study. Drawing on interviews and observational studies undertaken with the experimental music ensemble Apartment House, I examine the role of temporal indeterminacy in the socio-musical interactions that characterize performance, and its implications for the musicians' experiences. In doing so, the chapter makes a broader contribution in its consideration of the ways in which issues of authorship and authority are negotiated in such temporal interactions, and how the dynamics of these negotiations present a sociality based on a 'separate togetherness', whereby performers play together (out of time) with one another.

Keywords: John Cage, conductor, indeterminacy, time, temporality, ensemble dynamics, sociality

Subject: Philosophy of Music, Music Theory and Analysis, Music

Series: Oxford Handbooks

Collection: Oxford Handbooks Online

Introduction

PERFORMING together in an ensemble is typically associated with principles of communication and intersubjectivity—a coming together in a shared experience as musical events unfold over time. Of all ensemble formats, the orchestra in particular has frequently been used as a metaphor for sociality, in which musicians work together to create a coordinated performance. Orchestral practice has been described by Robert Faulkner (1973) as representing 'an exemplary process of collective action–making' (p. 147); writing more recently, Melissa Dobson and Helena Gaunt (2015) characterize orchestral musicians' actions as being 'formed as a result of adapting and synchronizing to any number of their colleagues' (p. 31). While the individual and collective experiences of orchestral musicians are clearly made up of a complex constellation of behaviours, decisions, feelings, and so on (Cottrell 2017; Ponchione–Bailey 2016), there is a general consensus that most orchestral musicians attend to the 'prime directive' (Ponchione–Bailey 2016) of playing together in a coordinated and cohesive manner, guided by a unified group intention. But what happens when that unity does not exist, whether through chance, or deliberate resistance?

This chapter explores how time and temporality are experienced in the performance of indeterminate music, using John Cage's *Concert for Piano and Orchestra* (1957–8) as a case study. Cage's interest in time has been well documented (Campana 2001; Pritchett 1993; Valkenburg 2010), and his concern to explore the organizational structure of the orchestra is evident in a number of other works throughout his compositional output. Each performance of the *Concert* exhibits multiple temporal strata that reconfigure musical time on several levels: by introducing indeterminacies to musical structure, at the level of the page, system, and event; by removing conventional systems of metric time; and by providing a performance part for conductor, who functions as, in Cage's words, 'a chronometer of variable speed' (Cage et al. 1992b[1958]) by altering the pace of the performance in unpredictable ways. Drawing on interviews and observational studies undertaken with the experimental music ensemble Apartment House, I examine the role of temporal indeterminacy in the socio-musical interactions that characterize performance, and its implications for the musicians' experiences. In doing so, the chapter makes a broader contribution in its consideration of the ways in which issues of authorship and authority are negotiated in such interactions, and how the dynamics of such negotiations present a sociality based on a 'separate togetherness' (Iddon and Thomas 2020: 190), whereby performers are invited to play (out of time) with one another.

Ensemble Dynamics and Time Consciousness in Musical Performance

A key question—perhaps a deceptively simple one—that underpins this chapter is: 'What do musicians experience during performance?' Discussions of attention and awareness in performance often turn to the phenomenon of 'flow' (Csíkszentmihályi 1996)—a term used to describe a heightened state of consciousness that occurs during peak experiences whereby the practitioner is fully absorbed in the task at hand. This apparent effortless automation is not fixed, however. It is borne out of a dynamic interplay of body, instrument, and skill, the outcome of an optimal relationship between challenge and capacity that enables performers to anticipate and deal with ambiguity and resistance in the moment. In his research on group creativity, Keith Sawyer (2003) argues that while 'intersubjectivity is fundamentally social and collective' it must be 'negotiated' (p. 24). Invoking Mihály Csíkszentmihályi's work, Sawyer proposes the phenomenon of 'group flow'—that is, the shared attentional awareness of a group of musicians that can occur when they become collectively attuned, whereby 'everything seems to come naturally' and 'the performers are in interactional synchrony' (Sawyer 2003: 44). Group flow, Sawyer argues, occurs when a group achieves a balance between the unpredictability of their improvised actions and the coherence of their shared knowledge and skills. Although participants might experience their own flow states simultaneously, this is not a prerequisite for group flow: it is an emergent and irreducible phenomenon of a performing ensemble that can only occur when equal contributions are made by each participant (see also Sawyer 2014: 273).

While Sawyer is primarily concerned with jazz improvisation, Frederick Seddon and colleagues (Seddon 2004; Seddon and Biasutti 2009; see also Waddington 2017) identify a similar mode of communication in both jazz and classical performance, defined as 'empathetic attunement': the phenomenon of musicians engaging with one another during performance. Empathetic attunement holds that musicians must 'decentre' (that is, shift their focus away from themselves and onto their co-performers) in order to have shared common goals and to 'see things from other musicians' musical points of view' (Seddon and Biasutti, 2009: 120). This fundamental intersubjectivity of music-making lies at the heart of Nicholas Cook's conception of music as performance (Cook 2007[2004]). Cook draws on the sociologist Alfred Schütz's (1951) concept of 'inner time' to argue that all performance is a matter of social interaction, a 'mutual tuning-in' (Schütz 1951: 79) of performers that leads to 'a shared, communal temporality' (Cook 2007 [2004]:15). That is to say, all musical performance affords a collective communality; an argument that Cook uses to critique ontological understandings of composition, performance, and improvisation.

The above characterizations of ensemble relations view the experiences of performers through a lens focused primarily on principles of convergent coordination, an approach that is predicated on collective attunement. In his phenomenological account of absorption in musical performance, Simon Høffding (2019) has questioned the idea that players need to attend to each other's states of consciousness during performance. Through detailed ethnographic work with the Danish String Quartet, Høffding shows how a performance might be achieved with players occupied by, or oblivious to, all manner of different considerations (both musical and non-musical), and not necessarily attuned to how their colleagues are feeling, or what they are experiencing or attending to. Instead, he suggests that, while performers might have rehearsed and learned a particular interpretive approach, how that performance is realized through playing might fluctuate (even if imperceptibly) in unpredictable ways, with each musician's sense of agency in the unfolding music shifting in various ways. For example, he categorizes performers' experiences as oscillating between moments of 'standard absorption' (when a player's expectation and execution are perceived to be equitable), mind-wandering, 'frustrated playing' (on encountering a particular obstacle), 'intense absorption' resulting in a perceived loss of self, and 'ex-static' absorption (a form of reflective consciousness accompanied by a heightened state of agency) (Høffding 2019: ch. 4). Høffding's view of ensemble performance is therefore emergent and interactive, but not predicated on unified or collective

experience. This argument thus accounts for a more differentiated and dynamic view of co-performer interaction—one which does not rely on shared subjectivity, whether that interaction takes place between members of a string quartet or a symphony orchestra.

p. 508

Rather than occupying a continuously shared 'inner time' then (pace Schütz), there might be several entangled streams of sensations and perceptions at play in a performance as players negotiate and move between different kinds of interactions. The sociality of performance is therefore not unmediated or neutral, but is culturally shaped and experienced. Mark Doffman (2019) makes precisely this argument in a discussion of the 4 ways in which musicians inhabit time in the moment of performance—i.e. their attention to, and awareness of, the when in performance. Doffman describes time consciousness as an 'outward-facing, [...] socially-oriented practice that takes account of others' actions and which musicians both inhabit and act upon', in a way that incorporates 'the complex of awarenesses and their transformation within music' (p. 184). Using the Greek division of time into chronos ('processual') and kairos ('event'), Doffman argues that performance requires a combination of both kinds of temporal awareness. Akin to Schütz's 'inner time', processual time consciousness describes a musician's tacit and encultured awareness of the temporal character (i.e. the metre, rhythm, and tempo) of a particular style or genre of music, and thus what it means to play in time in that music. Event consciousness is the awareness of timely or opportune moments during a performance, the sense of when something should occur (in a rhetorical sense) that often occurs at pivotal moments in performance (Doffman cites the ending of a jazz improvisation or the punchline of a joke as particularly apt examples of event consciousness). However, in contrast to Schütz's model, processual time is not uniform or unmediated. Time consciousness, Doffman argues, operates at different, but interrelated, scales of engagement which are located both 'inside' and 'outside' the room. At the narrowest, micro level, a performer might be immediately aware of what they are doing in the moment of a performance (whether in relation to their own playing and/or in relation to their colleagues); at a broader, meso level, a performer's time consciousness is shaped by their enculturation within a tradition or community of practice (Wenger 1998); and at the broadest, macro level, a musician's time consciousness must adapt to paradigm-shifting changes within a domain (e.g. innovations such as the invention of the metronome or click track). During performance, players' momentary awareness of time (or, as Doffman puts it, their practical time consciousness), is shaped by particular discursive practices which operate from the micro to the macro level.

If the preceding discussion seems to suggest that spontaneity and contingency are inherent to all ensembles (even in the most ostensibly 'mechanistic' musical situations such as musical theatre pit bands), rather than being a unique aspect of indeterminate music, on one level this is true: Høffding's characterization of absorption certainly resists a view of performance as being any more or less determined by a score. But it is important also to take into account the particular performance practices associated with Cage's music, and the *Concert* specifically (and thus attend to the meso and macro level influences). The following section sets out some of those practices in more detail.

"...a Solo or a Part in an Ensemble, Symphony, or Concerto"

The somewhat ambiguous 'concert' of the piece's title, ⁵ as well as its instructions for each instrumental part to be conceived of as 'a solo or a part in an ensemble, symphony, or ¹4 concerto' (1960 [1958]), hint at Cage's reframing of a conventional ensemble situation. This is also suggested by the performance materials: the piano part, also known as the *Solo for Piano*, comprises 84 notations spread across 63 large unbound pages, which can be played in any combination and any order. The orchestral musicians play from separate parts (without a score), and, working within a predetermined length of time, each performer can choose to play any number of pages of their part (including none). Moreover, the *Concert*'s formal instructions state that the parts themselves can be played in any combination, including with other pieces, offering seemingly endless performance possibilities. ⁶

The notations and instructions of each part follow more or less similar principles, particularly with regard to timing. The length of each system (or stave) is unspecified, and all sounds are indicated using either a small, medium, or large note head. Cage's instructions state that these three sizes determine either the amplitude or the duration of a particular pitch (i.e. a small note head can be of either a quiet dynamic, short duration, or both, and so on). While no direction is provided for how to decide the placement of notes across a system, in the programme notes for the *Concert*'s premiere Cage specified that 'each part is written in detail in a notation where the space is relative to time determined by the performer and later altered by a conductor' (Cage and Kostelanetz 2000[1993]: 57). The player must therefore negotiate the spatiotemporality of each system relative to the potential duration of each sound.

Performances of the *Concert* do not necessarily require a conductor—the instructions suggest that the musicians could use a stopwatch or similar device (although this would result in quite a different, less flexible performance); if a conductor is involved, however, they work from their own part too, which provides a list of timings to (in Cage's words) change 'clock time to effective time' (see Figure 24.1).⁸

During performance the conductor uses both arms to imitate the hands of a clock. What this means in practice is that, standing in front of the orchestra in the usual position, the conductor begins with their left arm stretched up above the top of their head at the 12 o'clock position. Their arm moves around in an anticlockwise (from the conductor's perspective) motion like the second hand of a clock; when it reaches the bottom (6 o'clock) point, their right arm continues on the same trajectory to return to the top (12 o'clock) position, completing one full rotation for one minute of 'effective' time. The pace of these movements fluctuates according to the conversions specified in the conductor's part, anywhere from eight times slower to two times faster than normal 'clock' time. The orchestra musicians must follow the timings set by the conductor, moving faster or slower accordingly, with conventional performance practice holding that the pianist ignores the conductor's actions. In addition, the conductor does not necessarily need to start from the first row of the part, and so the actual sequence of timings might be quite different from one performance to another. In the Apartment House performance discussed in this chapter, the musicians prepared 39 minutes of material to correspond to 39 revolutions of the conductor's arms, which—with the fluctuations in speed of the revolutions in the actual performance—lasted just over 53 minutes.⁹ L

Figure 24.1

CONDUCTOR

Using a stop-watch, the conductor changes clock-time to effective time. Standing where he may be seen by all the players, he represents to them the movement of a second-hand, but counter-clockwise (beginning each minute with the left arm high and descending to the left. At effective 30° the right arm continues to the right and up to effective 60°. When a change in speed is approaching he indicates this with his free hand, an upwards motion announcing a faster speed, a descending one announcing a slower one. Throughout the final minute he keeps the free arm at 0, the end being indicated by the touching of the two palms.

He may begin anywhere in the following table, provided clock and effective time are accompanied with an omission number (in this case provided for a twenty minute program), continuing sequentially.

| CLOCK TIME | EFFECTIVE TIME | OMIT | CLOCK TIME | EFFECTIVE TIME | OMIT |
|---------------|--------------------|---------|------------|----------------|------|
| 1'30" | 15" | 30" | 30" | 45" | 00 # |
| 1'30" | 1'30" | 15* | 2100 | 1'15" | 00# |
| 1'15" | 2100# | 00* | 1'15" | 1'15" | 15* |
| 1'15" | 1'45" | 00# | 1'30" | 30" | |
| 30" | 30* | 15" | 30** | 30" | |
| 1'30" | 15" | 15" | 30** | 15" | |
| 15" | 15" | 00# | 1'45" | 45* | |
| 30" | 45** | 1'30" | 30" | 45" | |
| 15** | 15" | 45" | 1'30" | 30* | |
| 45* | 1'30" | 30** | 1'45" | 45* | |
| 1'15" | 1'45" | 00# | 15" | 30° | |
| 1'15" | 1'30" | 00# | 1'15" | 1'45" | |
| 1'30" | 15* | 00" | 1'00" | 1'00" | |
| 1'45" | 15" | 00* | 1'15" | 45* | |
| 1'45" | 30* | 30° | 1'15" | 1'00" | |
| 2100 | 15" | 00" | 45** | 1'30" | |
| 1'00" | 15 ⁿ | 00* | 15# | 15" | |
| 1'30" | 1'45" | 15" | 30" | 45** | |
| 30" | 15" | 00# | 2100# | 15" | |
| 1'00" | 1,00 | 00* | 45m | 30" | |
| 15** | 30" | 15* | 2100 | 45" | |
| 1'15" | 1'15" | 1'15" | 30** | 30** | |
| COPYRIGHT (C) | 1960 BY HENMAR PRI | ESS INC | | | |
| | | | | | |

0 1 10 100

John Cage: Concert for Piano and Orchestra (1957–8), Conductor's part, p. 1. Edition Peters No. 6705. © 1957 by Henmar Press Inc., New York.

Reproduced by permission of Peters Edition Limited, London.

p. 511 Cage described the role of the conductor in the *Concert* as being 'Not of a conductor or a leader, but of a utility!' (Cage and Charles 1981[1976]: 109). On the one hand, the *Concert* reduces the conductor's role to a single function: controlling time. Yet, on the other, their authority becomes more absolute, since the relationship between conductor and ensemble is not reciprocal. The performers must respond to the conductor's actions, but the conductor does not visibly react to the musicians or indeed to any aspect of the music as it unfolds. In one sense, then, the conductor 'directs' the ensemble in a one-directional manner, with the pianist working alongside, yet independent from the events on stage. At the same time, the conductor exercises a sort of authority 'by proxy' since the authority is not their own: they must adhere to the strictures of the conductor's part.

This approach to indeterminacy in performance is summed up by Cage as the 'practicality of anarchy' (1972, cited in Kostelanetz 2003[1987]: 67), and is operationalized in the *Concert* on a number of levels. The first is by disrupting the performers' embodied relationships to their instruments. Instruments are dismantled, detuned, and destabilized, and within the parts themselves techniques are often stretched or combined to

the point of complete breakdown. Second, and perhaps most profoundly, indeterminacy unsettles the temporal relationships between the ensemble members. Each instrumentalist has a sense of what is going to happen in terms of the order of events on their individual part, but they have been denied information about when it is going to happen, as well as what is going on with the rest of the ensemble, i.e. the unfolding sound world around them. They do not need to maintain an agreed tempo or attend to metre, but they do need to watch the conductor and be sensitive to fluctuations in effective time in order to gauge the placement of events, and to adjust the durations of sounds accordingly. Conversely, the conductor can anticipate the overall duration of a performance and any fluctuations in speed, but the *what* and the *when* of musical events is completely unknown. What sets this temporal landscape apart from the stretching and placement required during a more 'conventional' concert hall situation is that there is no mutual relationship between the players, through either the existence of a shared pulse or a collective sense of architecture.

In considering how a performance of the *Concert* might differ from a performance of a piece of Western (classical) music, G. Douglas Barrett's (2016) description of the score as 'less a blueprint that mandates a preconstructed musical object and more a prompt that produces a series of contingent consequences in its realization' (pp. 48–49) is apt here. In the case of the *Concert*, the performer's intimacy with their material is undermined by the contingencies of the performance situation which deny them certain information. The performer can work closely with the material of their part so that the various events and actions (including often quite complex techniques) become thoroughly ingrained within their practice. However, while the performer might have a comprehensive understanding of the timings of their individual part, during the performance itself their expectations might be frustrated by the unpredictable and unstable shifts in speed brought about by the conductor's actions. Iddon and Thomas (2020) have characterized these conditions as resulting in a defamiliarization of the performer's habitual actions, whereby:

the conducted changes of pace demand shifts in energy or movement [which] might be more-or-less nebulously felt, but wholly tangible would be the different ways in which some actions must be articulated at an unexpectedly faster or slower pace or, equally, the way in which, should a sudden, unexpected *accelerando* take place the way in which a particular, well-known musical event might need to be dropped entirely or, in the case of an equally unexpected *ritardando*, an event perhaps not seemingly amenable to extension has to be somehow stretched or otherwise drawn out. (p. 98)

p. 512

That is to say, the temporal indeterminacy of the *Concert* has perceptual consequences for each musician's 'object of expectation' (Huron 2006: 6), and thus disrupts their potential immersion in the flow of performance in more or less discernible ways. While it would be problematic to take an overly deterministic view of these circumstances, such that the performers are entirely constrained by Cage's notation, it could be argued that the performance situation places selective pressures on the musicians that must be dealt with through playing. Another way of characterizing this situation might be to view it as an instance of 'improvisation impromptu' (Goehr 2016), which describes the phenomenon of grappling with unexpected resistances in the moment of performance, ¹⁰ since the musicians must adapt their playing 'on the fly' to abrupt changes in the music, including adjustments to speed such as those discussed above. In this way, the performers' embodied knowledge of the music must be sufficiently malleable to adjust to unanticipated constraints in the moment of performance.

Clearly, the phenomenon of musicians having to 'think on their feet' through playing is not the preserve of indeterminate music. Accounts from performers show that a sense of risk and spontaneity can be experienced in even the most apparently 'determinate' performance situations, such that 'just about anything can happen', to quote violist and member of the Guarneri String Quartet, Michael Tree (cited in Blum 1986: 20). Moreover, ensembles routinely adapt their playing to maintain and restore synchrony during performance (Weeks 1990; 1996). The difference lies in the way that, in the context of the *Concert*,

disruption and flux are, if not actively pursued, then at least accepted aesthetic ideals, rather than breaks in continuity that must be resolved. A corollary of these circumstances is that, as William Brooks (2002) has argued, the performer's 'responsibility is to themselves and to their own actions, not to an imagined totality' (p. 222). It is also possible, of course, that the conductor could share with the other musicians the changes of speed in advance of a performance of the *Concert*, and that the performance itself could be thoroughly rehearsed to the point of relative predictability. It is arguable that such an approach would have deviated so far from indeterminacy's aesthetic of celebrating difference and contingency as to be contrary to the spirit of the performance tradition. Moreover, aside from the fact that it would be quite an impractical method to execute, given that Cage could have specified instructions for such a practice, it seems telling that he chose not to. Nevertheless, this is precisely the approach taken by the pianist and first performer of the *Concert*, David Tudor, whose meticulous yet sometimes idiosyncratic realizations of Cage's scores effectively ossified them into 4 'determinate' pieces, and yet whose performance practice Cage celebrated (Iddon 2013; Pritchett 2004). This paradox illustrates one of the inherent tensions between theory and practice in understandings of indeterminacy (Cline 2019), while also emphasizing that the case study discussed in this chapter presents just one of several possible interpretations of Cage's music.

Performing the 'Practicality of Anarchy'

A conventional view of a Cageian performance practice associated with his music from the 1950s onwards is one characterized by individualism and isolation, requiring performers to work independently from one another, and to have the self-discipline to refrain from making decisions based on personal choice. Such an approach is suggested by Cage in a letter concerning *Variations III* (1962–3), where he advocated a 'disciplined' mode of performance, i.e. 'a way not constrained by [the musician's] likes and dislikes', and that rehearsals should 'be in solitude, not together with any of the other musicians' so that '[n]o one is to constrain or be constrained by another' (Cage, personal communication to Charles Boone, 21 March 1968). A similar view is articulated in Cage's recollection of his response to an invitation to play with the Joseph Jarman Quartet in 1965, in which he 'advised them not to listen to each other, and asked each one to play as a soloist, as if he were the only one in the world', appealing to the musicians that they should not respond to one another's dynamic levels; rather, 'they should be independent, no matter what happened' (Cage and Charles 1981[1976]: 171; see also Kim 2012). Cage's suggestions here are focused on resisting intersubjectivity and the tuning-in commonly ascribed to ensemble performance.

One method of facilitating autonomous performer behaviour, according to Cage, was through the physical separation of the musicians in the performance space. Cage spoke about this in some detail in his lecture 'Indeterminacy', delivered in Darmstadt in the same year as he finished composing the *Concert*. He argued that the spatialization of seating in this way would allow for 'the independent action of each performer' since '[t]here is the possibility when people are crowded together that they will act like sheep rather than nobly' (Cage 1961b[c.1959]: 39). Cage's statement here is concerned with the 'chronic', or processual time consciousness, the coordinative impulse to play together, an impulse that his comments suggest should be repressed. Separating the musicians from one another brings the performer's taken-for-granted, flock-like awareness into focus, and affords an 'interpenetration' rather than a 'harmonious fusion' (p. 40) of sounds. Writing from a performer's perspective, Petr Kotík, the conductor and director of the S.E.M. Ensemble, who has performed Cage's music widely, places a similar emphasis on self-discipline—understood here, like Cage, to mean an aesthetic that emphasizes individual responsibility—in this example in relation to the *Concert* L. itself. Performance choices, Kotík argues, 'must not be made merely according to the performer's preferences' so as to 'remove value judgments from the decision-making process'. He sums up decisively, 'One should never put one's own ego between the music and the performance!' (Kotík 1993).

In order to distance their choices from relying on habit or musical training, musicians might employ chance procedures as part of their preparation process, such as tossing a coin, using a random number generator, deriving operations from the I Ching, and so on. But in terms of how musicians respond to one another in the moment of performance, the question remains about the extent to which it is practically possible to 'switch off' one's awareness from one's co-performers. The situation of performing the *Concert* is certainly less clear-cut than Cage's or Kotík's comments suggest, with its contingencies resulting in (from the performer's perspective) certain thresholds being shifted from those of conventional 'concert' music. This relates to its emphasis on performers as individuals, through the use of separate performance parts (and the eschewing of a 'master' score), and through the physical dispersal of the players within the performance space. On the one hand, the ensemble could be understood as comprising a collective of soloists rather than a unified group, with each player operating independently of one another: there is no need for any player to respond to, or communicate with, their colleagues. On the other hand, the presence of a conductor invites a 'mutual tuning in', both symbolically, in creating a more conventional, almost parodic, version of a concert hall situation, and in practical terms: the conductor provides the musicians with a shared point of reference both visually and temporally. As Iddon and Thomas (2020) put it:

[T]he conductor reintroduces—if transformed—one of the usual strictures of large ensemble music: with a conductor, the ensemble is no longer simply a group of co-existing soloists, but an assemblage of intersecting individuals who exist in collective temporal space. (p. 206, emphasis original)

These conditions lead to performers inhabiting a 'separate togetherness' (190), whereby at a group level performers must operate quasi-collectively to respond to the changes in speed set by the conductor, while at an individual level they operate independently.

A performance of the *Concert* thus treads a line between presenting a collection of instrumentalists who are apparently hermetically sealed off from one another and mimicking a typical orchestral situation. But how does this tension play out in practice? The conduct of the musicians during the first performance of the *Concert* at New York Town Hall on 15 May 1958 forms part of a colourful narrative surrounding the piece, and does not need to be repeated here; suffice to say that early performances were characterized by the allegedly disruptive behaviour of the orchestral musicians, and similarly playful—or, in some cases, rowdy—responses from the audience. Despite this infamous reception history, however, there are few first-hand accounts from the musicians themselves about what it was like to perform the *Concert*. The extent to which a typical Cageian Laperformance ideology relates to the actual experiences of musicians working within the practical constraints of performance is the focus of the subsequent case study.

Case Study: Apartment House

The case study addressed in this chapter is based on a performance by Apartment House conducted by Jack Sheen with Philip Thomas playing the piano part, which took place on 1 July 2017 at the University of Leeds and resulted in a CD recording (Apartment House 2017). A rehearsal on the day of the performance and the performance itself were filmed. Semi-structured interviews were undertaken with the musicians throughout the project, both before and after the performance.

At the macro-social level, the *Concert* offers two paradigm shifts in orchestral performance practice. The first is its rejection of a metric temporality which would usually facilitate rhythmic perception and action. The music requires the elimination of the metric measuring of time, where musical events unfold in seconds and minutes rather than beats and bars. In practice, this means that players do not need to tune in to a shared pulse. Indeed, the main challenge that Sheen identified during performance was being able to orient

himself within the music without relying on listening to the ensemble's sounds, commenting during interview:

You're totally divorced from the players' music, however they are in some way connected to you. [...] Like all musicians, we're trained to tune in to sounds, and this was a piece where if I did that I knew I'd get lost in my own counting and what I was doing, which bears no relationship to the sounds in a way that I need to be aware of. ¹⁶

Sheen's shift in focus had an impact on his recollection of certain details of the performance. He described the experience of performing as being 'like a very broken up piece of music, but each section of that requires a lot of attention. It kind of erases your overall sense of architecture, and actually the piece flies by because of that.\(^{17}\) For cellist Anton Lukoszevieze, the experience of playing with others in a state of metric dislocation disrupted his ability to concentrate on his own part, and he strove to avoid listening to the other players so as not to have his attention diverted from his playing. As with Sheen, this had an effect on his perception of the passage of time, and he described the experience as 'quite disorientating [...] it's actually quite exhausting just sitting there waiting to play, because you don't want to be distracted and you really just have to prepare yourself in your mind about what you have to do that's coming up.\(^{18}\) As a consequence, some players decided to predetermine the details of their parts as part of their preparation process, leaving little to 'chance' in performance. Violist Reiad Chibah, for example, asserted that it was important to prepare a relatively fixed realization, in order \(^{18}\) to suppress his 'instinct to respond to sounds going on around' him,\(^{19}\) and thus to facilitate a sense of separation from his colleagues.

The second paradigm shift manifest in the *Concert* is its reconfiguration of the role of the conductor, and the consequences of this for (1) the musical interactions of the musicians (since the passing of the seconds and minutes is disrupted by the conductor's actions) and (2) their social interactions in the unsettling of the conductor—orchestra relationship. At the meso level, each performer's sense of timekeeping and timeliness was influenced by their personal experiences, training, and knowledge of the experimental music tradition that form part of Apartment House's collective aesthetic and conduct, as well as the ensemble's experiences of rehearsing and performing together. For example, other than discussing their own personal performance strategies with the research team during interviews, the group chose not to consider potential preparation or performance strategies collectively. Moreover, as I will show, while all of the musicians demonstrated careful attention to performing their parts, they each placed a different emphasis on Cage's instructions. Some brought an understanding of Cageian performance practice to bear on what they did, but there were inevitable differences in what a 'Cageian' performance practice was understood to mean, how that might sit alongside other performance priorities, and, perhaps somewhat inevitably, how those priorities played out in the moment of performance.

Within the ensemble there was a tendency for the performers to experience surprise at the different sounds that they encountered as they heard the *Concert* take shape as a collective performance for the first time. In direct contravention of Cage's comments, some performers described feeling drawn to respond to the sounds of their colleagues and thus adapting their choices in the moment of performance. This might mean extending a quiet sound for longer so that it could be heard in the midst of particularly noisy activity, or holding back from a loud and intrusive entry during an otherwise quiet episode. Other players enjoyed the feeling of their playing suddenly being more prominent in the collective sound world. For Chibah, for example, this experience was heightened by the layout of the performance space, with the separation of musicians creating a 'transparency' in the sound world that let each player present 'points of interest' within moments of silence in a way that he had not experienced in other performances.

A 'Non-musician'

The *Concert*'s shift in time consciousness at a broad, macro-social level is exemplified in Sheen's reflections on the unconventional nature of his role, one which he described in interview as 'very "unmusical" '. ²¹ Indeed, from the conductor's point of view, there is no 'music' as such to learn: the conductor's part only indicates how effective time and clock time relate to one another. A telling point is that Sheen did not listen to a recording of the *Concert* or look at any of the instrumental parts before the performance. The ensemble's brief rehearsal was used to perform a sound check and to make sure that all members of the ensemble understood how the rotations worked, and how the piece would begin and 'hend, but even at this point the piece was not performed in its entirety. Sheen described his function as essentially one of 'time management', ²² a description reinforced by violinist Ruth Ehrlich. She contrasted Sheen's function in the *Concert* with the expected function of a conductor: '[W]hat he was doing in this performance was certainly not beating time. He was just indicating the passage of blocks of time.' ²³ In addition to recalling Cage's assertion that '[b]eating time is not necessary. All that is necessary is a slight suggestion of time' (Cage 1961b[c.1959]: 40), Ehrlich's comment underlines the expectation that a conductor would usually actively participate in the orchestra's shared 'prime directive' by communicating the musical beats to the ensemble.

At the meso level, Sheen's approach to his role was also influenced by his understanding of the experimental tradition and the performance history of the *Concert*. In addition to emphasizing the conductor's functionality, Sheen saw his role as highly theatrical, influenced in part by his knowledge that the dancer and choreographer Merce Cunningham conducted the *Concert* at its premiere, and that it was sometimes used to accompany Cunningham's choreography for the dance *Antic Meet* (1958). Consequently, his preparation for the performance was focused on learning what he described as a 'choreography'—i.e. 'a series of physical gestures and adopting a certain physical presence on the stage, which in my opinion, substitutes for the musicality that a conductor would often give to an ensemble and therefore give to an audience'.²⁴ Gestural communication is clearly an integral part of all conducting technique, but in this role, Sheen's approach to gesture, eye contact, and so on was designed to resist communicating with the ensemble. He described feeling conscious to not 'look at players and give them a sense of expectation or imply anything. It's kind of removing myself from as much of it as possible.²⁵ In this way, Sheen exercised the role of a quasi-performer, with his attention directed primarily towards the physical aspects of his own individual performance and how they were conveyed to the audience, rather than to the ensemble.

For several players, the absence of the conventional communicative cues and gestures that would be usually expected from a conductor resulted in confusion, demonstrating the consequences of this shift in time consciousness for the narrower, micro-social aspects of performance. For example, violinist Hilary Sturt reflected in interview:

[I]t's the non-involvement, because as soon as somebody stands in the middle of an ensemble, as a 'conductor', I know we shouldn't, but we pay attention to them, and we expect information from them as to how to behave. But in fact [Sheen] was the reverse. He was a non-information, he was a non-musician, which is a huge inversion of roles. And normally you'd expect a conductor to conduct: to give gestures, and movements, and eye-contact, and to change balance. But nothing of that was there. It was a beautiful reversal.²⁷

other—particularly unrehearsed—orchestral situation, but that here those conditions are deliberately pursued, rather than being symptomatic of a lack of performance preparation or experience.

An Agonistic Sociality

Some of the performers' experiences of performing the *Concert* were suggestive of the aforementioned agonistic mode of improvisation impromptu put forward by Goehr (2016), in that the changes in pace of the 'conductor minutes' introduced additional constraints to work within in real time. Clarinettist Vicky Wright reflected on the disruptive impact that the sometimes abrupt shifts in speed had on her performance, forcing her to adapt her material in the moment:

Sometimes the minutes were elongated, so what was a minute would have more than doubled, and other times they went quickly, and it really made me re-evaluate my material. I found myself sometimes missing out things I didn't have time to get through. And I found myself extending things that previously I had not given that much time for.²⁸

Other musicians, such as tubaist Melvyn Poore, echoed Wright's observations, commenting on having to extend sounds for as long as possible until running out of breath and having to abandon them completely, and expressing acceptance about the fact that these outcomes were simply out of his control.

Despite these tensions being exercised 'behind the scenes' of the performance, neither the conductor nor the ensemble responded to one another in any observable way during performance. ²⁹ Sheen described experiencing a playful sort of 'being in the know' in his anticipation of changes in speed and how they would impact on the players' actions:

I'm in a privileged position because I know how fast the rotations are about to go, and the players don't. [...] [T]here were some great moments where certain members of the group would start playing a sound that had a particular character to it, i.e., it was loud or long or it was particularly unusual, and I knew when they started making that, that most likely without them realising it, they'd have to sustain that for a very long time, but I was in on it and they weren't. And that's so interesting, and that's really satisfying, because you're aware of the impact that your physical gestures are having.³⁰

While violist Bridget Carey also noted that the *Concert*'s temporal indeterminacy led to moments of feeling unsettled during the performance, she was somewhat cautious about overstating the impact of the *Concert*'s temporal instability on her as a performer in relation to other music. In the following comment she describes experiencing a sense of playful awareness in encountering and adapting to unforeseen obstacles in the moment of performance:

Composers mess with time in all sorts of ways. This is a radical example of that, but it's not a counterintuitive thing for a musician to do. And to read the score graphically, over this notion of changing time is in some ways quite liberating. There were moments when I started to play a note, and I realized I was going to have to play that note for a very, very long time! And sometimes it's not necessarily the most comfortable thing in the world. But also it was quite good fun from that

point of view. 'Oh right! OK! This is the game now! This is the problem that I need to solve at this point in the performance.' And that's not an unusual thing for a musician to do either. That's what musicians do: they solve the problem in relation to the score in the course of a performance. That's a bit of a job description.³¹

Carey's comments parallel those of Sheen in describing the effect of the *Concert*'s severing of the reciprocal relationship between conductor and ensemble, leading to a grappling or playing with authority in performance, as evidenced by their internalized interactions with one another. The dynamic becomes something of a benign struggle, with neither musician quite sure how (or if) events will resolve. Carey and Sheen's temporal experiences show that there is a pleasure to be had in the heightened awarenesses arising from resistance in performance, as well as letting go and being transported in its flow (cf. Doffman 2019: 184).

Carey's perspective brings the discussion back to a fundamental question that underpins performing the *Concert*, and Cage's other works that adopt this approach: the extent to which it is possible to divorce one's attention from one's fellow musicians. This is a question that trumpeter Jonathan Impett considered during interview:

Now, to the best of my recollection it doesn't say in the instructions to the trumpet part, 'Don't listen to other people'. Now this may well be a Cageian ethos which is entirely appropriate and entirely substantiated by his various comments. I think what's interesting performing the piece is the degree to which it's very difficult to switch that off, and you find yourself playing with the urge to play with other people. [...] I think that challenges your listening, it challenges your musicianship, it challenges your experience and your understanding of what it is to play with other people. ³²

p. 520 Impett's statement identifies an important issue at the core of this chapter: there is a tension between the meso and the micro levels of time consciousness in a performance of the *Concert*, whereby an encultured understanding of Cageian performance practices might be at odds with the intuitive sense of ensemble that arises from sharing a space, time (in a broad, non-metrical sense), and bodily presence. Moreover, as discussed, Cage's instructions that each instrumental part can be conceived of as a 'solo or a part in an ensemble, symphony, or concerto' invite a reconsideration of the various different roles and responsibilities that the performer might take on within the group. Indeed, some of the performance, with the musicians' fields of attention intersecting one another in sometimes quite unpredictable ways.

Conclusions

While this case study focuses on only one of the almost limitless range of realization possibilities that the *Concert* affords, the Apartment House musicians' responses to Cage's notation were carefully considered, rich, and diverse, and evidence a variegated performance practice surrounding the *Concert* that contradicts the conventional view of what playing Cage's music might involve. What is more, the performers' experiences suggest that notions of a unified, intersubjective communality in ensemble performance are inadequate to account for the wide range of modes of consciousness exhibited during performance. And yet it is clear that if the *Concert* is evaluated on the basis of being able to isolate the players from one another, it is surely a failure. Perhaps a more interesting question, then, is not whether it is possible to 'truly' suppress the intersubjectivity of performance, but what the consequences of attempting to suppress it might be, both for the musicians' immediate experiences of performance and, more broadly, for the meaning and significance of playing (indeterminate) music.

As already touched on, and as has been identified by commentators for more than 50 years (see e.g. Adorno 1961), this case study exposes a tension between freedom and constraint operating at various levels in indeterminate music. Indeterminacy has been famously held up as a model of social democracy, emancipating the performer from the hegemonies of the Western classical tradition, and threatening the established hierarchy between composer, performer, and listener. For Donald Anderson (2011), it represents a mode of 'noisy' resistance that has the capacity to 'frustrate and scramble codes of oppression' within 'a network of power relations' (p. 20). Yet, discussions of indeterminacy have tended to focus on its essentially compositional aspects, rather than on how the music functions or is experienced in performance. Indeed, these various claimed freedoms have not necessarily played out in practice, with attitudes of performers and composers painting a somewhat more mixed picture. As Piekut (2011) has shown in his account of the resistance of orchestral musicians to Cage's *Atlas Eclipticalis*, and in the paradox of Cage's advocacy for Tudor's 'creative—even subversive—engagement with \(\to \) the score' (Thomas 2013: 111), performance both foregrounds and complicates notions of authority and agency in indeterminacy.

To pick up on Carey's comments, how does a performance of the *Concert* differ from that of any other concert hall situation? The difference lies in what 'playing together' means in the context of performing the *Concert*: the ensemble shares a performance space, a conductor, and (at a very basic level) the objective of starting and finishing at the same time. Yet the routes taken by the musicians to reach this goal are deliberately disrupted. The temporal indeterminacy of the *Concert* is instigated by Cage's notation, but it is not simply written into the score. Analysis of the micro-social dynamics of the Apartment House performance shows that it is inflected by various other factors, such as the musicians' individual performance choices, previous training and performance experiences, and their attitudes towards Cage's music, as well as the practical constraints of realizing the unstable techniques within the fluctuating effective time set by the conductor. The players' practical time consciousness is shaped at the meso level by their pursuit of a shared sense of aesthetic goal that requires deliberate resistance to rhythmic and temporal coherence at the micro level. At the macro level, these conditions reconfigure the social 'systems of influence' (Ponchione-Bailey 2016) within the orchestra—in terms both of the relationship between the conductor and musicians and of the internal relationships within the ensemble—resulting in an altered temporal sociality.

In light of this discussion, it might be assumed that a performance of the Concert would present an embodiment of anarchy, with no relationship between the conductors' gestures and musicians' actions. And yet, watching and listening to the film of the performance, the musicians' poker faces belie the separate togetherness being exercised through their playing. The music exhibits shifts in collective energy, particularly at points where there is a sudden change in speed and performers noticeably adjust their playing in response to the movements of Sheen's arms (see Iddon et al. 2019). Despite the apparent indeterminacy of Cage's notation, then, the performance outcome is not a static assemblage of isolated sounds: there remains a relationship between the conductor and ensemble's actions. The situation is complicated further by the pianist, who simply orbits this constellation of activity without apparently intersecting it.³³ The audience, too, is conspicuous in its absence in this discussion, which has focused largely on the production of indeterminacy rather than its reception. One perspective is put forward in a review of the concert by Oliver Thurley (2018), who identifies moments of 'building agitation' (p. 91) as the conductor's rotations accelerated. For Thurley, there is a cohesion in the 'collective chaos' of the performance, whereby 'delicate, sustained tones passed back and forth across the ensemble [...] even where individual interpretations run isolated or even contrary to each other' (p. 91). The interplay between performers and audience and its role in the construction of meaning in indeterminacy is an area that invites further scrutiny, and would surely bring further nuance to this discussion.

In sum, the role of the conductor in the *Concert for Piano and Orchestra* is much more than simply one of utility: on the one hand Sheen's function was purely chronometric and one of tyrannical 'time

Acknowledgements

This research was supported by the Arts and Humanities Research Council (Project Reference: AH/Moo8444/1). The project team's archival research at Northwestern University Library's John Cage Collection was funded by a John Cage Research Grant. I am grateful to the John Cage Trust, and to Laura Kuhn personally, for the use of Cage's unpublished correspondence. I wish to thank the musicians of Apartment House for their participation in this research, and to Angela Guyton for creating the films for the project. Finally, thanks are due to Laura Anderson, Eric Clarke, Mark Doffman, Martin Iddon, Philip Thomas, and Toby Young for their insightful comments on earlier versions of this chapter.

Notes

- 1. See e.g. *Atlas Eclipticalis* (1961–2), *Cheap Imitation* (1970–72), the later *Etcetera* (1973; 1985) pieces, and the 'Number Pieces' for orchestra such as *101* (1988) and *108* (1991), which develop more radically some of the themes expressed in the *Concert*, but which were beyond the scope of this chapter.
- This chapter is an output of the Arts and Humanities Research Council project, 'John Cage and the Concert for Piano and Orchestra', led by Philip Thomas and Martin Iddon, and based at the Universities of Huddersfield and Leeds (Project Reference: AH/M008444/1). The main project findings are published in Iddon and Thomas (2020) and on the project website: https://cageconcert.org/.
- 3. See Floris Schuiling's Ch. 25 in this volume for a reconsideration of Schütz (1951) and its consequences for Cook's work.
- 4. The 'inside/outside the room' dialectic and its role in creativity is set out in an earlier article by Clarke et al. (2016).
- 5. The etymology of the term 'concert' is varied: in perhaps its broadest sense, it can indicate an 'assembly' of musicians performing together (Weber 2001); in French, a *concert* denotes an instrumental work comprising separate *pièces* (Sadie 2001); the word also has links to the Italian *concertare* ('to arrange, agree, get together') and 'consort', the early English instrumental ensemble (Weber 2001).
- 6. Indeed, there are over 16,000 possible combinations of the instrumental parts alone (Iddon and Thomas 2020: 268).
- p. 523 7. Detailed comparisons of the instrumental parts can be found in Iddon and Thomas (2020: ch. 3).
 - 8. For detailed analyses of the conductor's part, see Iddon and Thomas (2020: ch. 5) and Iddon et al. (2019d).
 - 9. Other recordings of the *Concert* differ widely in length. The first performance (Cage et al. 1992a[1958]) has a duration of 23 minutes and 13 seconds, and most other recordings of the piece last between 20 and 30 minutes.
 - 10. This is not to suggest that the Concert could be described as improvisation as in Goehr's 'improvisation extempore' (i.e. whereby improvisation fulfils a solely creative function). Indeed, a year after the piece's premiere Cage seems to have explicitly rejected any connection between performing the Concert and improvisation, stating in a letter to Peter Yates that while 'naturally each performance is unique', 'no part is improvised. Each person simply does what he has to do and which

interpenetrates with all the other parts but not in a way which anyone has planned or must control' (Kuhn 2016: 205). However, he subsequently referred to jazz in describing the *Concert*'s sound world (see Cage 1961a[1958]: 31; Kuhn 2016: 249). Moreover, the piece's requirement for performers to respond in the moment to the unpredictable temporal shifts set by the conductor is suggestive of improvisatory behaviour, as is the idea that the piece is formed of a combination of solos rather than a cohesive ensemble such as an orchestra—an aspect compounded by the separation of the musicians in the performance space (see Kim 2012 for a detailed account of Cage employing a similar approach when working with jazz musicians).

- 11. Source: John Cage Collection, Northwestern University Music Library, box 9, folder 1. Quotation used by permission of the John Cage Trust.
- 12. The spatial distribution of musicians was a common feature of later performances of the *Concert* (see Iddon and Thomas 2020: ch. 5) and some of Cage's other works, the 'happenings' in particular (Kirby 1965).
- 13. Accounts of the Concert's riotous premiere almost wholly rely on reception history and are likely to be apocryphal, or at least exaggerated. Moreover, the fact that Cage continued to work with a number of the musicians who were the 'culprits' of the disruption suggests that his dissatisfaction with their playing was short-lived at most (see Iddon and Thomas 2020: ch. 3).
- 14. See Iddon et al. (2019b) for a film of the performance.
- 15. All interviews were conducted by the project team, filmed by Angela Guyton, and transcribed by Emily Payne. The members of Apartment House who participated in the project are Bridget Carey (Viola 1), Reiad Chibah (Viola 2), Andrew Digby (Trombone), Ruth Ehrlich (Violin 3), Christian Forshaw (Bassoon and Baritone Saxophone), Jonathan Heilbron (Double Bass), Jonathan Impett (Trumpet), Anton Lukoszevieze (Cello), Aisha Orazbayeva (Violin 1), Melvyn Poore (Tuba), Nancy Ruffer (Flute), Jack Sheen (Conductor), Hilary Sturt (Violin 2), Philip Thomas (Piano), and Vicky Wright (Clarinet). Video recordings of the interviews are available on the accompanying website
- 16. Interview with Jack Sheen, 3 July 2017.
- 17. Ibid.
- 18. Interview with Anton Lukoszevieze, 4 July 2017.
- 19. Interview with Reiad Chibah, 4 July 2017.
- 20. Ibid.
- 21. Interview with Jack Sheen, 21 May 2017.
- 22. Interview with Jack Sheen, 3 July 2017.
- p. 524 23. Interview with Ruth Erlich, 3 July 2017.
 - 24. Interview with Jack Sheen, 3 July 2017.
 - 25. Ibid.
 - 26. While it is arguably the case that all conductors will be aware of how their performance is perceived by the audience, it is likely that their primary focus would be their relationship to the musicians on stage.
 - 27. Interview with Hilary Sturt, 3 July 2017.
 - 28. Interview with Vicky Wright, 4 July 2017.
 - 29. The musicians' (apparent lack of) responses to one another contrast strikingly to their behaviour during the other piece in the concert programme, Christian Wolff's *Resistance* (2016–17), which can be viewed at Iddon et al. (2019a).
 - 30. Interview with Jack Sheen, 3 July 2017.
 - 31. Interview with Bridget Carey, 4 July 2017.

- 32. Interview with Jonathan Impett, 3 July 2017.
- 33. Thomas has discussed his approach to preparing and performing the *Solo for Piano* elsewhere. See Thomas (2013) and Iddon et al. (2019c).

References

Adorno, T. (1961). Vers une musique informelle. In *Quasi una fantasia: Essays on modern music*, 269–322. Verso.

Google Scholar Google Preview WorldCat COPAC

Anderson, D. (2011). *Power and indeterminacy: The noisy networks of Foucault, Cage, Burroughs, and Delaney.* Doctoral dissertation, University of Seattle.

Google Scholar Google Preview WorldCat COPAC

Apartment House (2017). Concert for Piano and Orchestra. On CC [CD]. Huddersfield Contemporary Records.

Google Scholar Google Preview WorldCat COPAC

Barrett, G. D. (2016). After sound: Toward a critical music. Bloomsbury.

Google Scholar Google Preview WorldCat COPAC

Blum, D. (1987). The art of quartet playing: The Guarneri Quartet in conversation with David Blum. Gollancz.

Google Scholar Google Preview WorldCat COPAC

Brooks, W. (2002). Music and society. In D. Nicholls (ed.), *The Cambridge companion to John Cage*, 214–226. Cambridge University Press.

Google Scholar Google Preview WorldCat COPAC

Cage, J. (1960[1958]). Concert for Piano and Orchestra. Peters Edition.

Google Scholar Google Preview WorldCat COPAC

Cage, J. (1961a[1958]). Composition as process: Changes. In *Silence: Lectures and writings*, 18–34. Wesleyan University.

Google Scholar Google Preview WorldCat COPAC

Cage, J. (1961b[c.1959]). Indeterminacy. In Silence: Lectures and writings, 35-40. Wesleyan University Press.

Google Scholar Google Preview WorldCat COPAC

Cage, J., et al. (1992a[1958]). Concert for Piano and Orchestra. The 25-year retrospective concert of the music of John Cage. CD. Wergo.

Cage, J., et al. (1992b[1958]). Liner notes. In The 25-year retrospective concert of the music of John Cage. CD. Wergo.

Cage, J., and Charles, D. (1981[1976]). For the birds (trans. R. Gardner, ed. T. Gora and J. Cage). Marion Boyars.

Google Scholar Google Preview WorldCat COPAC

Cage, J., and Kostelanetz, R. (eds) (2000[1993]). John Cage, writer: Selected texts (2nd edn). Cooper Square.

Google Scholar Google Preview WorldCat COPAC

Campana, D. (2001). As time passes. In D. Bernstein and C. Hatch (eds), *Writings through John Cage's music, poetry, and art*, 120–136. University of Chicago Press.

Google Scholar Google Preview WorldCat COPAC

p. 525 Clarke, E., Doffman, M., and Timmers, R. (2016). Creativity, collaboration and development in Jeremy Thurlow's *Ouija* for Peter Sheppard Skærved. *Journal of the Royal Musical Association* 141(1): 113–165.

Cline, D. (2019). Two concepts of indeterminacy in music. Musical Quarterly 102(1): 82-110.

Google Scholar WorldCat

Cook, N. (2007[2004]). Making music together, or improvisation and its others. In Music, performance, meaning: Selected essays,

321-341. Ashgate.

Google Scholar Google Preview WorldCat COPAC

Cottrell, S. (2017). The creative work of large ensembles. In J. Rink, H. Gaunt, and A. Williamon (eds), *Musicians in the making: Pathways to creative performance*, 186–205. Oxford University Press.

Google Scholar Google Preview WorldCat COPAC

Csíkszentmihályi, M. (1996). Creativity: Flow and the psychology of discovery and invention. HarperCollins.

Google Scholar Google Preview WorldCat COPAC

DeNora, T. (2011). Practical consciousness and social relation in MusEcological perspective. In D. Clarke and E. Clarke (eds), *Music and consciousness: Philosophical, psychological, and cultural perspective*, 309–325. Oxford University Press.

Google Scholar Google Preview WorldCat COPAC

Dobson, M. C., and Gaunt, H. F. (2015). Musical and social communication in expert orchestral performance. *Psychology of Music* 43(1): 24–42.

Google Scholar WorldCat

Doffman, M. (2019). Practical time consciousness in musical performance. In R. Herbert, D. Clarke, and E. Clarke (eds), *Music and consciousness* 2, 170–186. Oxford University Press.

Google Scholar Google Preview WorldCat COPAC

Faulkner, R. R. (1973). Orchestra interaction: Some features of communication and authority in an artistic organization. *Sociological Quarterly* 14(2): 147–157.

Google Scholar WorldCat

Goehr, L. (2016). Improvising impromptu, or, what to do with a broken string. In G. Lewis and B. Piekut (eds), *The Oxford handbook of critical improvisation studies*, vol. 1, 458–480. Oxford University Press.

Google Scholar Google Preview WorldCat COPAC

Høffding, S. (2019). A phenomenology of musical absorption. Palgrave Macmillan.

Google Scholar Google Preview WorldCat COPAC

Huron, D. (2006). Sweet anticipation. MIT Press.

Google Scholar Google Preview WorldCat COPAC

Iddon, M. (2013). *John Cage and David Tudor: Correspondence on interpretation and performance*. Cambridge University Press. Google Scholar Google Preview WorldCat COPAC

Iddon, M., Payne, E., Melen, C., and Thomas, P. (2019a). Apartment House performs Christian Wolff's *Resistance. John Cage and the Concert for Piano and Orchestra*. https://cageconcert.org/project/outputs-and-activities/apartment-house-perform-christian-wolffs-resistance/>.

WorldCat

Iddon, M., Payne, E., Melen, C., and Thomas, P. (2019b). Apartment House and Philip Thomas perform the *Concert for Piano and Orchestra*. John Cage and the Concert for Piano and Orchestra. https://cageconcert.org/performing-the-concert/apartment-house-and-philip-thomas-perform-the-concert-for-piano-and-orchestra/>.

WorldCat

Iddon, M., Payne, E., Melen, C., and Thomas, P. (2019c). Philip Thomas: Performing the *Solo for Piano. John Cage and the Concert for Piano and Orchestra*. https://cageconcert.org/performing-the-concert/solo-for-piano/>.

WorldCat

Iddon, M., Payne, E., Melen, C., and Thomas, P. (2019d). The conductor. *John Cage and the Concert for Piano and Orchestra*. https://cageconcert.org/performing-the-concert/the-conductor/>.

WorldCat

Iddon, M., Payne, E., and Thomas, P. (2019). Disruption and discipline: Approaches to performing John Cage's *Concert for Piano and Orchestra*. *Music* + *Practice* 5. https://www.musicandpractice.org/volume-5/disruption-and-discipline-approaches-to-performing-john-cages-concert-for-piano-and-orchestra/>.

WorldCat

Iddon, M., and Thomas, P. (2020). John Cage's Concert for Piano and Orchestra. Oxford University Press.

Google Scholar Google Preview WorldCat COPAC

p. 526 Kim, R. (2012). John Cage in separate togetherness with jazz. Contemporary Music Review 31(1): 63-89.

Google Scholar WorldCat

Kirby, M. (1965). The new theatre. Tulane Drama Review 10(2): 23-43.

Google Scholar WorldCat

Kostelanetz, R. (2003[1987]). Conversing with Cage (2nd edn). Routledge.

Google Scholar Google Preview WorldCat COPAC

Kotik, P. (1993). Liner notes. In: John Cage: Concert for Piano and Orchestra/Atlas Eclipticalis. CD. Wergo.

Google Scholar Google Preview WorldCat COPAC

Kuhn, L. (ed.). (2016). The selected letters of John Cage. Wesleyan University Press.

Google Scholar Google Preview WorldCat COPAC

Piekut, B. (2011). Experimentalism otherwise: The New York avant-garde and its limits. University of California Press.

Google Scholar Google Preview WorldCat COPAC

Ponchione-Bailey, C. (2016). *Tracking authorship and creativity in orchestral performance* Doctoral dissertation, University of Oxford.

Google Scholar Google Preview WorldCat COPAC

Pritchett, J. (1993). *The music of John Cage*. Cambridge University Press.

Google Scholar Google Preview WorldCat COPAC

Pritchett, J. (2004). David Tudor as composer/performer in Cage's Variations II. Leonardo Music Journal 14: 11–16.

Sadie, J. (2001). Concert (i). Grove Music Online.

https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000006239>.

Google Scholar Google Preview WorldCat COPAC

Sawyer, R. (2003). Group creativity: Music, theater, collaboration. Erlbaum.

Google Scholar Google Preview WorldCat COPAC

Sawyer, R. (2014). Musical performance as collaborative practice. In M. S. Barrett (ed.), *Collaborative creative thought and practice in music*, 271–286. Ashgate.

Google Scholar Google Preview WorldCat COPAC

Schütz, A. (1951). Making music together: A study in social relationship. Social Research 18(1): 76–97.

Google Scholar WorldCat

Seddon, F. (2004). Empathetic creativity: The product of empathetic attunement. In D. Miell and K. Littleton (eds), *Collaborative creativity: Contemporary perspectives*, 65–78. Free Association Books.

Google Scholar Google Preview WorldCat COPAC

Seddon, F., and Biasutti, M. (2009). Modes of communication between members of a string quartet. *Small Group Research* 40(2): 115–137.

Google Scholar WorldCat

Thomas, P. (2013). Understanding indeterminate music through performance: Cage's *Solo for Piano*. *Twentieth-Century Music* 10(1): 91–113.

Thurley, O. (2018). Apartment House: Wolff, Cage, 'Performing Indeterminacy'. *Tempo* 72(283): 90–92.

Google Scholar WorldCat

Valkenburg, J. (2010). From bars to inches (to seconds): Timekeeping in the music of John Cage. *Tijdschrift voor Muziektheorie* 15(1): 68–75.

Google Scholar WorldCat

Waddington, C. (2017). When it clicks: Co-performer empathy in expert ensemble playing. In E. King and C. Waddington (eds), *Music and empathy*, 230–247. Routledge.

Google Scholar Google Preview WorldCat COPAC

Weber, W. (2001). Concert (ii). Grove Music Online.

https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000006240>.

Google Scholar Google Preview WorldCat COPAC

Weeks, P. (1990). Musical time as a practical accomplishment: A change in tempo. *Human Studies* 13(4): 323–359.

Google Scholar WorldCat

Weeks, P. (1996). Synchrony lost, synchrony regained: The achievement of musical coordination. *Human Studies* 9(2): 199–228. Google Scholar WorldCat

Wenger, E. (1998). Communities of practice: Learning, meaning, and identity. Cambridge University Press.

Google Scholar Google Preview WorldCat COPAC