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NOTATION, TIME AND
THE PERFORMER'S RELATIONSHIP TO
THE SCORE IN CONTEMPORARY MUSIC

Ian Pace

To Mark Knoop

I.
THE PERFORMER'S READING
OF GRAND NARRATIVES

There is a certain narrative construction of Western musical history, concerning development of the composer-performer relationship and the concomitant evolution of musical notation, which is familiar and at least tacitly accepted by many. This narrative goes roughly as follows: in the Middle Ages and to a lesser extent to the Renaissance, musical scores provided only a bare outline of the music, with much to be filled in by the performer or performers, who freely improvising within conventions which were for the most part communicated verbally and were highly specific to region or locality. By the Baroque Era, composers had become more specific in terms of their requirements for pitch, rhythm and articulation, though it was still common for performers to apply embellishments and diminutions to the notated scores; during the Classical Period a greater range of notational specificity was introduced for dynamics and accentuation. All of these developments reflected an increasing internationalisation of music-making, with composers and performers travelling more widely around Europe, whilst developments in printing technology and its efficiency enabled scores to be more widely distributed throughout the continent. This process necessitated a greater degree of notational clarity, as performers could no longer be relied upon to be cognisant of the performance conventions in the locality in which a work was conceived and/or first performed.

With Beethoven comes a new conception of the role of the composer, less a servant composing to occasion at the behest of his fea-

dal masters, more a freelance entrepreneur following his own desires and convictions, and writing works designed as much for posterity as immediate accessibility and success. This conception bequeaths us the notion of the master-work, which is considered to exist as an autonomous entity over and above its various manifestations in performance, at least to a greater extent than hitherto, and which speaks to us universally, transcending the horizons of the era in which it was created¹. An even greater degree of notational exactitude is required of such a work, with a view to performances in not just a different locality but also a different historical moment. One obvious manifestation of this is found in indications of tempo, where generic Italianate conventions are both rendered in the composer's native language and finely nuanced by qualifying clauses and adjectives. Through the course of the nineteenth century, tempo modifications are also entered more frequently into scores, and with the advent of a greater emphasis on timbre, scores gradually become more specific in terms of the precise details of instrumentation.

As the score came to be treated more reverentially, performers phased out the use of embellishment and ornamentation. In the twentieth century, this process was extended much further, with the finest nuances of inflection, rubato and rhythmic modification receiving precise indication in the score. By the time of the music of Brian Ferneyhough, to take one of the most extreme examples, all the most minute details of every parameter are etched into the notation, and the performer's task is simply to try and execute these as precisely as he or she can (the furthest extension of Igor Stravinsky's ideal of the performer as executor rather than interpreter², an attitude that is widely adhered to by performers of contemporary music).

Now, there is of course much truth in this narrative, or else it would surely never have attained the degree of acceptance that it

1 See Lydia Goehr, *The Imaginary Museum of Musical Works*, Oxford 1992, for more on this type of 'work concept'. The view of Beethoven I present here is highly indebted to that of Theodor Adorno, as presented in the posthumously collected *Beethoven: The Philosophy of Music*, translated Edmund Jephcott, Cambridge 1998.

2 See Igor Stravinsky, 'The Performance of Music', in *Poetics of Music: In the Form of Six Lessons*, translated Arthur Knodel and Ingolf Dahl, with a preface by George Seferis, Cambridge, MA 1970, pp. 121–135.

has, at least in some quarters. But in some ways it remains simplistic and dogmatically teleological. Whilst I do not write from the position of an expert in the performance of early music, I am keenly aware that the extent to which performers in early times freely improvised and embellished, or simply adhered to fixed conventions that may have been no less rigid than those which in later centuries would have been written, is at the very least ambiguous. Such issues remain debated at least up until the Classical Period and also beyond; the degree of freedom which was available to or expected of performers varied significantly, depending upon whose music they played³. The nineteenth century saw parallel and opposing tendencies, with the simultaneous cultivation of both the 'star' composer and the 'star' performer, each of whom demanded their own degree of autonomous freedom from the other⁴. It is by no means conclusively established whether late-nineteenth or early-twentieth century performers necessarily took fewer liberties with the score than their early-nineteenth century counterparts⁵, nor for that matter whether commonality of this type, delineated according to particular historical periods, is more

3 For example, Chopin in general was relatively strict with students concerning the performance of his own music (see Jean-Jacques Eigeldinger, *Chopin: Pianist and Teacher as seen by his Pupils*, edited Roy Howat, translated Naomi Shohet, with Krystia Osostowicz and Roy Howat, Cambridge 1986, in particular pp. 11–13, whereas Liszt, at least during his early 'virtuoso' period, was known for taking major liberties with the printed text (see Alan Walker, *Franz Liszt: The Virtuoso Years 1811–1847*, London 1983, pp. 316–318), and told his student Valérie Boissier in 1832 that he did 'not approve of polishing pieces meticulously', that 'Passions must be impetuous', and that 'One should express only what one feels' (see John Rink, 'Liszt and the Boissiers: Notes on a Musical Education', in *The Liszt Society Journal*, Vol. 31 (2006), p. 44). Boissier also noted his modifications to scores of Hummel and Weber (ibid. pp. 46, 52), and it may be possible to surmise from this and other evidence that he would not have been averse to other pianists taking some comparable liberties with his own music (I am not aware of any source from this period in his life in which he explicitly forbade or warned against such a thing).

4 For more on this subject, see Ian Pace, 'Instrumental Performance in the Nineteenth Century', in *The Cambridge History of Musical Performance*, ed. Colin Lawson and Robin Stowell, Cambridge, forthcoming.

5 Robert Philip, in his extensive investigation into early recordings, finds both areas of stylistic consistency and wild idiosyncrasies in approaches to vibrato, demonstrating if nothing else a plurality of approach in the early twentieth-century. See Philip, 'Tempo Rubato', in *Early Recordings and Musical Style*, Cambridge 1992, pp. 37–69.

striking than that which might be common to a region over a wider period of time.

But in many respects, it is the model of twentieth-century developments in both notation and composer-performer relationships that is the most inadequate⁶. Most obviously, developments in terms of notational detail have been paralleled by the exploration of graphic and other forms of indeterminate scores, and varying employments of performer choice and improvisation whose nature differs markedly from practices in earlier eras. I do not plan to deal with those types of works in this article; rather I wish to consider music with highly detailed notation to examine its relationship to performance and the possibilities it engenders.

II. THE PERFORMER'S ENCOUNTER WITH NOTATION AS CRITICAL ALTERNATIVE

I first wish to offer an alternative model of musical notation itself which will inform much of the rest of the article. The whole historical construct I outlined above is, to my mind, founded upon an essentially *positivistic* view of the role of notation. By this I mean the notion that the score tells the performer in essence *what* to do, around which he can elaborate (through use of varying micro-dynamics, rubato, tempo modifications, etc.) depending upon the degree of notational exactitude. The alternative model I wish to propose draws upon structuralist thinking about language⁷; instead of

6 This conception seems intrinsic to much of the thinking about so-called 'modernist' performance as conceived in Richard Taruskin's *Text and Act*, Oxford 1995.

7 The literature on this subject is too vast to summarise here, but core texts are Ferdinand de Saussure, *Course in General Linguistics*, edited Charles Bally and Albert Sechehaye in collaboration with Albert Riedlinger, translated with introduction and notes Wade Baskin, New York, Toronto and London 1966, and Roman Jakobson and Morris Halle, *Fundamentals of Language*, fourth edition, The Hague 1980. A standard overview of the development of structuralist ideas is Jonathan Culler, *Structuralist Poetics: Structuralism, Linguistics and the Study of Literature*, London 1975. It is beyond the scope of this article to elaborate on the difference between structuralist and post-structuralist ideas; suffice it to say that the conceptions I derive from the former are also informed by knowledge of the latter.

seeing the score in a *prescriptive* sense, telling the performer *what* to do, I would suggest that instead it delineates the range of possible performance activities by telling the performer what *not* to do.

Let me give a very simple example. A score indicates a group of three quavers played as a triplet. From a positivistic point of view, this would imply three notes each played for a duration of exactly one-third of a crotchet beat (that is literally *what* the score tells the player to do). Any deviation from this would represent some form of rubato. Now, in light of the fact that I believe that a metrically regular approach to triplets may be the exception rather than the rule in terms of historical (and even to some extent contemporary) practices, I find this sort of definition inadequate. Instead, this triplet should be viewed as being defined by what it *excludes*. There are a great many ways of playing the triplets in Example 1:

The image shows two systems of musical notation for a triplet of eighth notes. The first system is marked 'Vivace' and 'Op. 51'. It shows a treble clef with a key signature of two flats and a 3/8 time signature. The triplet consists of three eighth notes. The second system shows the same triplet with various rhythmic markings and dynamics, including 'p' and 'f' markings, and a '3' indicating the triplet. The notes are marked with fingerings (1, 2, 3, 4, 5) and there are asterisks below the notes in the second system.

Example 1. Chopin *Impromptu* in G-flat, Op. 51.

Almost all of the melodic or accompanying figurations here are triplets, but they can be played with a variety of rhythmic inflections, reflecting other aspects of the melody, harmony and rhythm. A small tenuto can be placed at the beginning of the first and second bars to place some stress on the strongest beat and quasi-accentuate the dominant seventh harmony provided by the C-flat at the beginning of the second bar (as an alternative to the

use of a regular accent, which might make the line unnecessarily jagged and also diminish the effect of the peak of the crescendo arriving between the second and third crotchet beats). The first notes on the first and third beats in the subsequent bars could be played similarly to enable a correspondence to be established between the melody and the two-crotchet duration groupings in the accompaniment. The more chromatic or dissonant melodic groups (for example the last crotchet of bar 2 and first crotchet of bar 3) could be expanded somewhat for added emphasis and 'breathing space'. Equally, the more diatonic or consonant groups (for example the second and fourth crotchets of bar 3) could be slightly accelerated. At the same time, the left hand figures could be played more regularly, leading to a de-synchronisation between the hands⁸. And, perhaps most crucially, the 'basic' triplet group could be played slightly unevenly (with the first note slightly longer than the other two, or perhaps more unusually, which the first and second shorter and the third marginally longer—of course there are many subtle variations of degree by which the performer can individuate their approach in this respect). All of these examples need not be considered as deviations but, instead, as some amongst the many possibilities for interpreting (in the sense of 'understanding') what the notational symbols used here can signify. However, if the basic pattern could be heard metrically as a semiquaver-quaver-semiquaver figure (which of course itself can be played in many different ways), then I would suggest that the performer is *not* playing triplets in any meaningful sense, as opposed to the above (and other) options.

So whilst in a sense it may be difficult to establish with any degree of certitude what a triplet *is*, we may be able identify what it is *not*. Similarly, there is an infinite number of different ways of playing *mezzoforte*, but a *mezzopiano* (let alone a *piano* or a *pianissimo*) such as would correspond closely to other occurrences of the latter symbol within the same piece or passage, would be strictly wrong—at least as the dominant dynamic for the passage marked as such. On discretely-pitched keyboard instruments, notation of

8 Numerous accounts of Chopin's playing and teaching emphasise his preferences in this respect: see Eigeldinger, *Chopin: Pianist and Teacher*, pp. 49–51.

pitch does indeed work in a positivistic sense (there is only one pitch that constitutes an A-flat within a particular octave, for example⁹). But on a stringed instrument, say, such a pitch could be played in various marginally different tunings, depending on factors such as the tuning system involved, whether the pitch is a leading note and thus to be sharpened or not, considerations of expressive intonation or other inflection relating to its harmonic function (or the tuning of other players with whom one is playing), and so on. So here an A-flat is not exactly a specific pitch, rather a range of possibilities that can be demarcated by considering what is excluded—an A natural, a G, or maybe an A-quarter-flat or three-quarters-flat as well, for example.

So, if a performer thinks of notation in this way, the task becomes less one of playing something 'right' as playing it 'not wrong' (which should not be taken to imply the relativist position that all 'not wrong' solutions are equally valid, only that they are not specifically excluded by the notation¹⁰). This may seem a contrived way of conceptualising notation, but it is one which I

9 However, whether this is notated as an A-flat or a G# can affect other aspects of how it is played, as I will explore later in this article in the context of the music of Morton Feldman.

10 The composer Howard Skempton has been known to remark in private that 'A piece of music is only as good as its worst performance' (my thanks to Mark R. Taylor for relaying this remark to me), by which I presume he means that 'worst' means 'worst but not excluded by the notation'. This is a very hard-line position to take on notation and interpretation (but one that seems particularly vivid and noteworthy in the context of Skempton's own often sparsely notated work) which I would not wish wholly to subscribe to. Skempton may have also been indirectly alluding to the problems Feldman encountered with his own early works involving indeterminate notation in this respect (Feldman commented that in his early graphic scores that the 'performers sounded bad ... because I was still involved with passages and continuity that allowed their presence to be felt' ('Autobiography', in Walter Zimmermann (ed), *Morton Feldman Essays*, Kerten 1985, p. 38, later published as 'Liner Notes', in B.H. Friedman (ed), *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, Cambridge, MA 2000, p. 6). It is also worth noting Feldman specifically refused permission for Cornelius Cardew to mount a performance of one of the *Projections* series using instruments different to those in the score ('Unpublished Writings', in Friedman (ed), *Give My Regards to Eighth Street*, pp. 206–207). This was one possibility that the score definitively excluded. Frank O'Hara's conceptualisation of how 'the performer must create the experience within the limits of the notation' in *Piece for Four Pianos* (1957), 'New Directions in Music: Morton Feldman', *ibid.* p. 215, corresponds very closely to the model of notation I am outlining).

believe has positive benefits in ways I hope to demonstrate in the context of contemporary music. I chose an example from Chopin deliberately because his music begs these questions as much as any from the standard piano repertoire. In reports of his playing of various mazurkas, for example, the three beats in a bar were so stylised that some believed it was written in four¹¹. That might seem to reveal a weak point in my model of notation (according to which something in four would be strictly wrong¹²); but I believe, bearing in mind the poetic licence which may apply in such a report, that most sensitive listeners would nonetheless perceive the difference between a highly stylised mazurka rhythm performed in the manner described and something that is actually being played (and, more importantly, read) as if it is in a time signature of four.

III. CONTEMPORARY MUSIC, NOTATION AND PERFORMANCE: AN ELLIOTT CARTER CASE STUDY

To look at what is at stake in the interpretation of notation in contemporary music, I should like to begin with a reasonably standard example, well-known to many pianists who play new music, Elliott Carter's short piece *90+* (1994). The work seems extremely precisely notated in terms of pitch, rhythm, dynamics, articulation, and so on. But there are nonetheless a huge number of questions which the performer must answer for him- or herself. Example 2 shows the opening of the piece.

For the first two lines or so, there is a continuous chordal progression, each chord consisting of three or four notes from a six-note chord. Around this, in his characteristic fashion, Carter pre-

11 As remarked by Sir Charles Hallé, who said that Chopin's performances of his Mazurkas 'appeared to be written, not in 3/4, but in 4/4 time, the result of his dwelling so much longer on the first note in the bar' (Eigeldinger, *Chopin: Pianist and Teacher*, p. 72).

12 It should be borne in mind that this is a very particular idiomatic use of rhythm for which an expanded concept of what 'three in a bar' means may be required.

Example 2. Elliott Carter, *90+*

sents various types of 'punctuation' which first take the form of single pitches from the same six-note chord at varying dynamics and articulations. Then, with the introduction of the G-flat and D at the end of bar 6, the pitch gamut widens; furthermore, in bar 4 the hairpin dynamics indicate that the 'punctuation' pitches begin to form into lines. The tempo direction consists solely of a metronome mark, crotchet = 96, with no other expressive indication. As this marking will, on the next page, undergo a metrical modulation to crotchet = 120, one can fairly assume that, at least when that modulation approaches, the original tempo is to be maintained in some fashion. But in the intervening bars, is the pulse to be kept quite strict, or is there room for some local deviation for 'expressive' purposes? I will demonstrate in a moment examples of how some might wish to do this, but first let us examine other basic questions that arise from the very outset.

The opening chord consists of four pitches all marked *piano*.

But how is one to voice this? If one plays all the notes literally at the same dynamic, there will be a slight imbalance as the lower notes sound stronger — this aspect becomes more pronounced in more widely-spaced chords. Followers of certain schools of playing might wish to ‘top voice’ the chord slightly; whilst there is nothing in the score specifically to indicate this, there is nothing to forbid it either. Bearing in mind that Carter frequently works with performers trained at American music colleges, where the top-voicing, all-purpose *cantabile*, approach is sometimes standard practice¹³ (especially amongst those who have studied with expatriate Russian teachers or within the schools they bequeathed), he would presumably be aware of this. However, later, in bar 37, Carter writes ‘bring out upper line, *cantando*’ in a passage of a similar nature; from this we can fairly assume that the later passage is thus to be differentiated from the opening (or else he would surely have written such an indication there as well).

If one plays the chord with a very subtle voicing so that each note is very slightly louder as one goes from bottom to top, it is possible to create an *audible* equality between the pitches, rather than a *literal* one as mentioned before. None of these possibilities is necessarily ‘right’, in the sense of implying others are ‘wrong’, but nor is any of them clearly ‘wrong’ according to the notation. There are other possibilities as well; one might wish to bring out the presence of an E-flat triad within the opening chord by playing the F slightly softer than the other pitches. This could make the ‘contradiction’ of the tonality provided by the following E-natural more pronounced, if that is what one wishes. And other distinct voicings designed to foreground certain harmonic properties of later chords are equally possible. Peter Hill writes of how Messiaen was enthusiastic about the many possibilities in this respect in the *Catalogue d’Oiseaux*¹⁴, in which questions of voicing are even more complicated by virtue of the presence of various dynamics within chords, which can themselves be interpreted in a

13 This convention has sometimes invoked the wrath of composers, notably Debussy, who according to Marguerite Long said ‘The fifth finger of virtuosi, what a pest it is!’ (Long, *At the Piano with Debussy*, translated Olive Senior-Ellis, London 1972, p. 13). See also note 14 for Messiaen’s similar sentiments.

variety of ways; the issue is further exacerbated by the dynamically complex chords in the first two of Stockhausen’s *Klavierstücke*¹⁵.

So, let us now consider the dynamics and articulation of the ‘punctuation’. The first note in the bass, E-natural, is indicated *mf* with an accent and a tenuto marking. Leaving other dynamics to one side for a moment, consider how one interprets and executes this accent. It might be seen to imply that the note is slightly louder than the basic level one determines to be *mf*, or it might be read as to imply a certain sort of attack. I would play the B-flat and G with the second and third fingers, and then use a slight rotary throwing motion on the fifth¹⁶ to aid the approach on the E, absorbing the reaction from the key with a certain resilience in the joints and wrist. For reasons which are beyond the scope of this article to explicate in depth, such a mode of touch, from a clear distance above the key, will produce a degree of ‘key noise’ (the sound of the finger striking the key), which merges to the ear with the sound produced by the hammer hitting the string, so as to give a slightly sharper-edged beginning to the note¹⁷. But this is only one possibility; the E could be played from closer to the key so as to minimise the possibility of such key noise; once again, those of certain schools of playing would frequently favour such an approach, as a note with a sharper-edged attack is often con-

14 See Peter Hill, ‘Messiaen on his own music’, in Hill (ed), *The Messiaen Companion*, London 1995, pp. 275–277. Hill also points out that Messiaen ‘detested the gratuitous bringing-out of the top note’ (p. 275).

15 In Ronald Stevenson’s *Western Music: an introduction*, New York 1971, a book which exhibits that combination of scepticism towards modernism and neo-romantic idealisation of ‘world music’ that is a common feature of a certain school of British musical discourse, he argues that one of these chords, with four different dynamics in one hand, is ‘simply unplayable by a human hand, whether the person attached to it is called Smith or Horowitz’ (p. 188) and goes on to suggest that this was what led Stockhausen to electronics. However, numerous performers (for example Aloys Kontarsky, David Tudor, Herbert Henck, Bernard Wambach or Ellen Corver) have clearly disproved Stevenson’s claim.

16 By this I mean a motion whereby the forearm rotates on its axis in the direction of the held notes, so as to provide extra distance from which the finger(s) can be thrown towards the keys. This is a technique derived from the method provided in György Sándor, *On Piano Playing*, New York 1982.

17 To those who would deny that ‘key noise’ is ever audible, I would recommend listening to Sylvano Bussotti’s *Pour Clavier* (1961), which includes a (highly audible) section played mostly just on the surface of the keys.

sidered by them to be harsh and unacceptable. Then there is the question of how the note is to be released; I could raise the finger briskly from the key (after holding it for its full duration) with a further rotary motion, causing the damper to fall rapidly and produce an abrupt end to the note. Alternatively, I could slow the release of the finger, and thus cause the damper to hit the string less abruptly, by the use of an upward wrist motion whilst releasing.

The right-hand B-natural is marked staccato and *mezzo piano*. Again I can use a throwing motion to play this if I so desire or play from closer to the key followed by a quick release (this approach would however be likely to be somewhat less abrupt than that produced by the 'bounce-back' of the throwing motion).

These are all, of course, minute details, but in combination can quite significantly affect the nature of the audible result and how it might be perceived. The question of attack for the punctuation (or, for that matter for the chords, for which similar questions arise), is especially important: the extent to which one differentiates the two groups of attacks (for punctuation and chords) will affect the extent to which the different layers of musical information are perceived as being stratified.

At the risk of over-generalisation, I would argue that a less-stratified approach accords more closely with many interpretative aesthetics associated with those who concentrate primarily on the standard repertoire and come from relatively traditional and well-established schools of teaching¹⁸, whereas the more-stratified one might be seen as a more 'modernist' approach. This is not at this stage to imply any dogmatic value judgement as regards these different approaches (and all the other possibilities), though I do observe that the former seems very much more in fashion at the time of writing. I will return to this point later.

Carter indicates in the score that the pedal is to be used solely to join one chord to another. But this can be done in different ways, depending on the exact point at which it is released, and the man-

18 At least in the twentieth century; there is ample evidence to suggest quite different approaches to this were common in the nineteenth, especially in certain French, Germanic and Hungarian schools of piano playing, though this is too large a subject to investigate in the context of this article.

ner of doing so. A quick release exactly on the attack of the new chord causes a clear progression in which the chords are connected, indeed seamlessly, but form a line in an essentially accumulative manner. A slower release, or a release very marginally after the attack, blurs the overlap somewhat, creating a sense of a particular manifestation of line as something over and above the simple sequence, even as a type of 'aura' which further exacerbates the difference from the punctuation¹⁹.

When the punctuations start to form themselves into lines, there are various ways in which one can use small tempo modifications to heighten this feature if so desired. The end of bar 4 contains a written out *accelerando*, but a slightly quickening of the pulse *on top of this* might make the relationship sound less obviously 'metrical' or mechanistic. Similar principles could also be applied in bars 6 and 7.

The passage at the end of bar 7 and beginning of bar 8 could be played as if the E-flat is an appoggiatura, thus helping to consolidate a sense of a temporary tonality of B-flat in the left hand. This can be done by playing the E-flat slightly louder than the notes on either side of it, whilst maintaining a basic dynamic of *mezzo forte*. In order to further heighten this sense of tonality, one could play the B-flat slightly later than indicated, and the D slightly earlier, so as to marginally compress the figure.

These are just some of the various decisions for performers, even in these eight bars alone (I have not talked about, for example, how one gauges both absolute and relative dynamics, which is another important issue). If one tried to rethink these questions anew with every single note, it is unlikely the piece could be played without spending a huge amount of time learning just a single page (this may be a desirable option, but hardly practical at least for performers of contemporary music, who are generally expected to continually learn and maintain a very large repertoire). Many performers will have simply established a set of con-

19 Charles Rosen points out that Moritz Rosenthal told him that this type of 'syncopated' pedalling was purely a product of the nineteenth century, though Rosen himself doubts this (Rosen, *Piano Notes*, New York 2002, p. 210). See also Kenneth Hamilton, *After the Golden Age: Romantic Pianism and Modern Performance*, Oxford 2008, pp. 170-174, for more on the issue (Hamilton is more sceptical about Rosenthal's claims and suggests various possible motivations for them).

This passage, from bar 63 onwards, uses a notational strategy common in many of Kagel's later works²¹. Were the dynamics, phrasing and articulation left free, one might be inclined to play the melody line somewhat like in Example 4:



Example 4. Kagel, melody from *Passé Composé*, bars 63–67, a possible phrasing based upon the inherent melodic properties of the line.

The phrasing and voicing in this manner (one of several possibilities) gently reinforces the contours of the melody; one might also balance the E-flats and D-flats in the bass (playing the former generally softer than the latter), so as to clearly imply a tonal centre of C# or D-flat minor. Whilst to some extent this latter key is indeed implied by the writing, there is no unequivocal resolution because of the particular dynamics and phrasing. In various senses, Kagel's dynamics in particular are quite radically counter-intuitive; for example, the final semiquaver of bar 65 is marked at a higher dynamic than the two notes on strong beats which surround it. The balance of voicing between the hands is also in a continual state of flux, neither ever clearly assuming the role of a *Hauptstimme*.

But this is not simply a type of belligerently anti-idiomatic writing on Kagel's part, 'different' for difference's sake. The first two-

21 Without the dynamic markings, this would be what Kagel elsewhere refers to (in the context of a passage from the stage work *La Trahison Orale/Der Mündliche Verrat*, which also occurs in the Piano Trio) as a 'seamless winding melody' (*pausenlos windende Melodie*—'.../1991: Ein Gespräch zwischen Mauricio Kagel und Werner Klüppelholz', in Klüppelholz (ed), *Kagel .../1991*, Cologne 1991, p. 51). Many of Kagel's later works feature melodies constructed from quite banal figurations, including descending diatonic, modal and chromatic scales. See Björn Heile, *The Music of Mauricio Kagel*, Aldershot 2006, esp. pp. 140–141, for more on this.

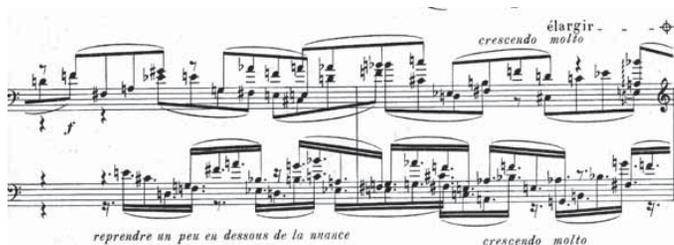
and-a-half bars in the right hand roughly correspond to what one might 'naturally' play; what alters things is the presence of the left simultaneously, whose dynamics serve to gradually reinforce (though never in a thoroughly affirmative manner) the sense of a D-flat pedal point, which on the third system of the page is revealed to be a dominant of G-flat. The right hand then seems to react to the ways through which its very identity is disoriented by the left, so that the final semiquaver of bar 65 sounds like an attempt to 'compete' with the latter, then 'corrected' with the next note which balances the voices. After this the right hand gains confidence, building to a sustained *forte*. This sort of highly distinctive interplay could only be achieved by such counter-intuitive notation as Kagel uses. There are numerous other comparable examples throughout the piece and elsewhere in his output.

When once rehearsing Kagel's *Piano Trio* with two string players, I remember comments from them about how Kagel supposedly did not understand how to write for their instruments, as the bowings they encountered seemed so unidiomatic. Despite my own expressed sentiments to the contrary, I was unable to persuade them not to rewrite them. By so doing, they were writing out a fundamental aspect of Kagel's music—the very fact of composing 'against the idiom' in order to forge extremely individuated modes of expression that run contrary to habitual expectations. Yet their very strangeness, at least at first, unfortunately tends to count against performers in the eyes (or rather ears) of many critics.

This process of 'performer recomposition' is common; during one student rehearsal session in London, the performers had similarly changed Kagel's markings in favour of something supposedly more idiomatic to the instruments. In rehearsal, he insisted that they did what he asked; alas, after the performance, I remember one critic in particular bemoaning the fact that the phrasing and articulation sounded 'unnatural', or words to that effect, blaming the performers for this. Such a critic, I believe, was looking for a musical expression that offered the comfort of the familiar; Kagel's music, and the forms of negation he employs though notation, work precisely to counteract such things.

V.
PIERRE BOULEZ, NOTATION AND RECORDED
PERFORMANCE

Let us look at an example which raises the issue of how one interprets notated beaming, and the implications in terms of metre.



Example 5. Pierre Boulez, *Second Sonata for Piano*, from second movement.

In this movement, a passage of rather complex counterpoint, built from manipulation and development of small cells, 'clarifies' in Example 5, as the music approaches a climax (arrived at via a long-range crescendo), by the use of regular periodic units in each hand: quavers in the right, dotted semiquavers in the left, so as to produce a 3:4 ratio. In the recording of the piece made by Maurizio Pollini²², I hear what amounts to a simple 3/8 metre (or 6/8, possibly); the music could have been notated in two parts with simple beaming in groups of three and four notes in either hand²³, as in Example 6.

Actually the right hand in Boulez's notation consists entirely of staggered groups of four quavers as indicated by the beaming²⁴; similarly the left hand consists of groups of four dotted semiquavers. This notational configuration acts as a negation of the wholly

22 Originally recorded in 1976, the pressing I refer to is on a CD together with works of Stravinsky, Prokofiev, and Webern, Deutsche Grammophon 419 202-2.

23 Charles Rosen comments on how Boulez employs a technique derived from Messiaen by which barlines appear to contain an extra beat, so as to avoid their signifying rhythmic regularity. See Rosen, 'The piano music', in William Glock (ed), *Pierre Boulez: A Symposium*, London 1986, p. 92.



Example 6. Re-notation of passage in Example 5.

regular pulse that would result from the version I wrote out, and which I hear in Pollini's performance. It demands some imagination from the performer to clarify this defamiliarisation of what would otherwise be a regular pattern (and would as such serve an overly cathartic function in the context of what is otherwise a high degree of metrical irregularity). One way to do this is to put a slight stress on the first of each beamed group of four, and play the last of such groups a little less than the other notes, combined with an ultra-legato touch in both hands to emphasise the connectedness of notes within a group.

But there is the further question of how to 'think' the pulse. By this I mean the designation of the metrical unit the performer thinks of as the pulse, playing the other part relative to this [just trying to avoid ending a sentence with a preposition]. The easiest possibility in this case is for the pianist to think in quavers; this is what I believe Pollini does, and which is clearly implied by Boulez's indication of 'repandre un peu en dessous de la nuance'. The passage clearly echoes a slightly earlier passage (Example 7) in which there are regular semiquavers in one hand combined with triplet quavers in the other (also with beaming in staggered groups of four in each hand). Here it is easier for the pianist to think in

24 On Boulez's wider use of four-note periodic cells in this sonata (especially in the first and last movements), see Thomas Bösch, 'Zu Deuxième Sonate (1946-1948) von Pierre Boulez', in Orm Finnendahl, *Kontexte: Beiträge zur zeitgenössischen Musik. α. Die Anfänge der seriellen Musik*, Berlin 1999, pp. 37-96 (especially pp. 76-78, 84-87) and more briefly in Gerald Bennett, 'The early works', in Glock (ed), *Pierre Boulez: A Symposium*, pp. 77-81.

terms of semiquavers or quavers as the basic pulse, though no clear reason why one should not equally think in terms of triplets. In either case, I have found that one's choices create audible hierarchies, but one should ask: why this is the case? One reason might be because of the by-product of a certain small, unconscious stylisation of whichever group is *not* the thought pulse, which is thus played somewhat less metrically rigidly.

Example 7. Boulez, *Second Sonata*, from second movement.

VI. MORTON FELDMAN AND NOTATIONAL 'SPELLING'

In Morton Feldman's extended piano piece *For Bunita Marcus* (1985), the 'spelling' of the notation (in the sense of the choice of accidentals) indicates a variety of things that are worth considering. The piece is notated at a single dynamic (*ppp*) throughout, with a pedal indication at the beginning and otherwise just two places where he marks no pedal for identical mini-flourishes, after which the pedal is retaken. There are also no slurs or articulation markings. In terms of how exactly to play the work within the

notated dynamic, in terms of subtle nuances and so on, we have only the beaming, barring, bar grouping with respect to repeats, and spelling to go on, combined with apprehension of other musical properties of the work. Most of the piece is taken up by interactions and dialogues between several categories of material, mostly consisting of just a few pitches which are permuted, rhythmically modified, shifted by the octave, or occasionally subject to pitch development. A passage roughly in the middle of the work makes much of a group of three pitches, C# an augmented octave above middle C, the E above that, the D# above that, and a high F a diminished 10th above that, always notated as a grace note. The minor third formed by the simultaneous resonance of the two lowest pitches clearly implies a C# minor tonality, the high F reinforcing this by acting somewhat in the manner of an appoggiatura. The passage in Example 8 starts from well within the reiteration and permutation of this pitch cell.

Feldman returns to another cell based upon F#, C#, D and E, which has already been extensively developed earlier in the piece, like a fading memory, before returning to the other pitch cell. But at the top of page 37, he does something remarkable, producing a moment quite unlike anything elsewhere in the piece. He sharpens the E to an E#, and lowers the high F to the A# below, thus creating a sense of modulation into the tonic major. This is very short-lived, as Feldman flattens the E# back to an E after this has been repeated once, then makes matters more murky by flattening the C# to a B#, and reintroducing the A#, so that the combination of E# and B# can be seen to resolve chromatically onto E and C#, giving the earlier seeming modulation into the major a retrospective context.

In light of what I am describing in terms of the harmonic progress (unusual within the piece because of the use of pitch development), one should consider the notation at the top of page 37. The large 2/2 silent bar in the middle of the group blurs any perceptible temporal relationship between the two bars containing notes; with the pedal depressed, they sound almost identical in terms of pulse (making the first bar with notes in the following group between repeat signs more striking for its rhythmic con-

Example 8. Morton Feldman, For Bunita Marcus, pp. 36-37.

trast). As the first E# heralds a quasi-modulation, should it be stressed very slightly, as one might do with a comparable process in a more traditional work? Or should one just let it emerge without any such heralding? Perhaps neither of these options is preferable, on account of the particular grouping of bars. This depends upon whether one interprets the use of repeated groups as being merely a notational convenience, or whether it signifies something

of greater musical consequence. I am inclined towards the latter explanation for the following reasons: both of the two preceding groups of bars (as delineated by repeat signs) begin with a C# followed by a D#, a quaver apart, as does this one. As such the other pairs of notes in each group might be interpreted as an extension and enrichment of the sonority, and might be played very marginally quieter, as 'weak bars' compared to the 'strong bars' at the beginning of the groups. Then the tonic major modulation can sound quite different, growing out of such enrichments, rather than necessarily heralding a major harmonic shift, and in this manner attaining a more melancholy than affirmative character.

The pitch cell most extensively used in the piece consists initially of A-flat below middle C, G a major seventh above, C above that, and B-flat above that, notated as two temporally staggered, arpeggiated dyads in either hand, as can be seen on page 31, second system, third bar (Example 9).

Example 9. Feldman, For Bunita Marcus, p. 31, second system.

This comes almost immediately after the second mini-flourish, which thus serves to herald the introduction of such material. Soon afterwards, all pitches are shifted up a semitone, and this becomes the basic unit. Example 10 gives one example of how this pitch cell is reiterated and temporally permuted.

I first got to know this work well from a recording which I owned for two years before I purchased a score. This material had always sounded like an axis of relative tonal stability, establishing the dominant key as that of A major, combining a minor seventh in the right hand with a major seventh in the left. And if I had transcribed the work from my recording, I would have notated it as A, G#, C# and B. But this is not how Feldman notates it; the inter-

The image displays a musical score for a piece by Michael Finnissy. It consists of five systems of music, each with a piano (piano) part on the left and a guitar part on the right. The piano part features complex chord voicings, including augmented sixths and diminished octaves, with various dynamics and articulations. The guitar part is written in a style that suggests specific voicings and techniques, with some notes marked with 'ba' and 'bA'. The score is in a key with one flat and a 16/8 time signature.

Example 10. *Feldman, For Bunita Marcus, from pp. 45–46.*

vals he presents are an augmented sixth in the right hand and a diminished octave in the left. If this were written for strings, it would be possible to make this clear by different tunings, but no such option exists on the piano. How to try and make Feldman's particular spellings manifest in sound is a major challenge in this

piece. After both performing it myself and hearing it played by others, I have come to believe that a certain unconscious tendency to think of this cell as being 'in A major' implies a certain type of voicing, in which the A and D-flat are very slightly more prominent than the B or A-flat. But this 'A major' feel can be somewhat deferred by a different approach, entailing the playing of the D-flat and A-flat at a very even dynamic so as to stress the interval of a perfect fourth. If the D-flat is slightly more than the B, then it is less likely to imply the interval of a minor seventh. But at the same time, the barring should be taken into account, over and above what might seem a 'natural' harmonic voicing. If the beginnings of each bar are stressed very slightly, the tonality is defamiliarised even more. At the same time, the pairs of pitches in the left hand can be played with the first A very slightly louder than the A-flat, so they sound like a dyad. This would thus make the low A the strongest pitch, followed by the A-flat and D-flat (both played equally), with the B the quietest; the latter modified in line with the barring.

This is of course one of various possible solutions; whichever one chooses, it is important to bear in mind and act upon the counter-intuitive notation, working *against* the assimilation of this music into a notion of 'tradition' (in terms of particular forms of tonally-derived models of tension and release), even if this makes the music less amenable to what might be called a 'chill-out' form of listening, a manner of appropriation I fear is all too frequent in Feldman performance today.

VIII. MICHAEL FINNISSY PRO AND CONTRA TRADITION

Many works by Michael Finnissy explicitly allude to different 'traditions', and as such raise the question of the relationships between Finnissy's pieces and their sources in performance. The first of these I would like to consider is from his first book of *Gershwin Arrangements* (1975–88), his setting of 'They're writing songs of love, but not for me'.

Quite slowly, sadly and tenderly

poco accel. ... a tempo

Example 11. Michael Finnissy, 'They're writing songs of love, but not for me', from Gershwin Arrangements.

Finnissy has a continually developing figuration in quavers in the left hand (itself an allusion to Liszt's *La Lugubre Gondola I*²⁵). In the second, fourth and some later bars, he adds a dot to the first quaver. Now, the means of interpreting this has always fascinated me. When I first asked him about the piece, I wondered if this was simply shorthand for a certain expressive holding back at these points, a slightly vague way of using notation in order to tell the performer to do precisely that. He said that this certainly was a notated rubato, but was precisely *that* rubato in the score. Now, thinking about the notation in this manner can significantly affect the result. If seen as a vague indication of a holding back, the natural tendency would be to slightly anticipate the dotted quaver with a minute elongation of the previous quaver, and do the same with the quaver that follows the dotted one, so as to ease smoothly

25 Finnissy would later return to this work in the chapter *My Parents' Generation thought War meant something* from his epic piano cycle *The History of Photography in Sound*, though here it is combined with a Soviet War Song. Finnissy pointed out to me the link between these two pieces (both preoccupied with death) alluding to the same Liszt piece.

into the expansion and back out again. Similarly, on the third system, the extra quaver rest at the end of the bar (breaking with the general pattern of groups of three quavers), could be interpreted simply as a comma or 'breath', and similarly anticipated by a small ritardando in the preceding group.

But this is not what I believe Finnissy intends. If the basic quaver pulse is kept reasonably steady (except where the *poco accel* is marked) then the dots, tempo modifications and rest produce a markedly different form of psychological expression. Instead of *expansions* of the pulse, the dots become *interruptions*, like heartbeats that are only half the length they should be. The *poco accel*, and the triplet group before the rest, if also played in such a context of an otherwise steady pulse, become moments of a certain nervous tension as the pulse is compressed, anticipated by the close chromatic harmony in the third bar of the third system. Then the rest becomes a momentary void, after which the music begins to 'try again', thus defamiliarising the cadence into G major.

This approach accords much less with a received 'musicality', but produces a more striking psychological complexity even within such a short passage, and to my mind, is integral to the work's modernity, presenting fragmented and unstable consciousness as an alternative to nostalgic refuge within models of organic wholeness. But one's decisions in this respect may reflect what type of piece one believes this to be, or more broadly, one's sense of Finnissy's cultural significance. Is this music a slightly more chromatic neo-tonal homage to an archaic idiom, or rather an attempt to reconfigure such an idiom in a manner that is wholly contemporary, or simply deeply personalised? The former may be likely to win more plaudits from certain critics for whom something called 'modernism' is essentially a dirty word and once again value music of the present to the extent to which it can be situated within the realms of that which they already know and with which they feel comfortable²⁶.

26 I suspect that this type of attitude has informed certain attempts to construct Finnissy primarily within a late-romantic pianistic tradition (which is undoubtedly a major influence) and play down ways in which his work might resonate with modernistic forms of fragmentation, discontinuity and defamiliarisation. For more on the construction of an anti-modernist critical aesthetic of performance in general, see Ian Pace, 'Verbal Discourse as Aesthetic Arbitrator', in Björn Heile (ed), *The Legacy of Modernism*, Aldershot 2008.

This issue is even more acute with the fifth piece in Book 1 of Finnissy's *Verdi Transcriptions* (1972–2005) (Example 12). This work has caused me no end of interpretive grief, and to this day I remain somewhat undecided on how best to play it. Finnissy takes the melody from the Septet with Chorus 'Vedi come il buon vegliardo...' from Part 1 of Verdi's *Ernani*, set in such a way that makes necessary (for simple practical reasons) a reading with tempos significantly slower than are common for performances of the Verdi original. He configures this with a certain degree of added chromatic harmony²⁷, though to such a degree as to subvert the clear tonality. However, the right hand consists of a two part atonal, very free, canon, seemingly independent of the left.

Example 12. Michael Finnissy, 'Vedi come il buon vegliardo...', from Verdi Transcriptions.

²⁷ As if a (mild) allusion to one of Leopold Godowsky's works for left hand, as Finnissy also does in various other works, notably the fourth of his *Yvaroperas*. See Ian Pace, 'The Piano Music', in Henrietta Brougham, Christopher Fox and Ian Pace (eds), *Uncommon Ground: The Piano Music of Michael Finnissy*, Aldershot 1998, [pages — will confirm] for more on this.

Finnissy clearly marks the hands *equilibrato*, and has often insisted on this to me, yet how to make this audibly meaningful in performance is by no means easy. The 'identity' of the left hand is much more obviously distinctive because of its tonal harmonic progression, whilst the right hand has no clear sense of linear direction. When simply played literally 'equally', the left hand still tends to occupy the foreground (also because it is in a stronger register; other comparable Finnissy pieces including others in the revised and expanded Verdi cycle, in which the tonal material is placed in the right hand, sound quite different in this respect). It is very easy to subdue those right hand notes which cause greatest dissonances with the bass, thus rendering them as passing notes and further consolidating the bass tonality; this heightens the cathartic function of this movement, in a way that all other pieces in this book seem to be heard relative to this one, acting in totality like a magnified 'tonal centre'.

In performances of this type (including some of my own in earlier years), I have heard listeners almost always identifying this piece as their personal favourite (save for a few hard-line avant-gardists who react negatively); I am confident that this is the result of its large amount of tonal material, more comforting either than Finnissy's more extensively mediated by-products, or than material so far removed from the original as to seem almost wholly new (such as the right hand, which in some distant sense is itself derived from the Verdi melody). To try and get away from encouraging this conception, I attempted various strategies. One was to accentuate the most dissonant notes in the right hand so as to attempt to destabilise the bass, but this approach seemed overdidactic. I realised better results could be achieved by thinking of the right hand as much in terms of rhythm and metre as pitch. So I would slightly accentuate the beginnings of beamed groups in the right hand (as suggested earlier in the context of Boulez), play them with a high degree of rhythmic exactitude, and make particularly clear those moments when the pulse shifts through tuplet groupings, rather than aiming for a more mellifluous approach. This would thus create a stronger sense of rhythmic presence, marked by discontinuities or at least shifts in pulse, enabling a more pronounced sense of the treble as a pair of *lines*, rather than

merely a constellation of pitches forming an essentially decorative function around the central melody.

IX.
COMPLEX MATTERS: KARLHEINZ
STOCKHAUSEN AND BRIAN FERNEYHOUGH
AND THE LEARNING EXPERIENCE

In my final two examples, I wish to look not only at the aesthetics of performance, especially with respect to duration, metre and rhythm, but also at what might be entailed in one's approach to the learning process itself. To put it another way, I want to consider not just what one *does* in performance, but also how one arrives at the situation which makes such things possible. The two things are linked and have deeper implications than might be realised, as I hope to demonstrate.

Much relatively 'complex' modern music (or indeed music of earlier eras as well) contains a large degree of information in terms of the range of possibilities that are directly implied by the score; no less significant are other knowledge and perspectives performers bring to bear upon it, concerning performance practice and conventions, perceptions regarding the a piece's nature, its relationships both to other music (including that which may accompany it in a programme) and a wider cultural sphere, the degree of audience familiarity (which of course depends on the audiences in question) and the real-time interaction between the performer and the audience at the moment of performance. The totality of all this information is more than any performer could possibly consciously control at all levels during a live performance. On the most basic level, one learns pitches, rhythms, dynamics, phrasing, articulation, tempo, tempo modifications, and so on, but can rarely devote equal attention to all of these when actually performing. For this reason, the performer engages in a process of *prioritisation*, both when learning the work and when performing it.

In a work with highly intricate notated information with respect to these parameters, one often learns it by concentrating upon different aspects of the music at different stages in the learning experience.

rience. This becomes an issue from the very first moment one takes a piece to the instrument. One might begin by loosely playing through the piece, paying less attention at first to the fine details whilst trying to gain some conception of the whole. In the process of learning, one then tries to focus in on the details and refine them, without losing sight of one's initial overall conception, though being prepared to modify this in light of what is learned during that process of small-scale focusing. Alternatively, one might begin by working on small details, refining these as best as one can before moving onto other passages, gradually building up speed, and so on.

These are the two extremes, and their very possibility is to some extent conditioned by such factors as the performer's ability to sight-read²⁸. They parallel what I have elsewhere²⁹ described as 'top down' and 'bottom up' approaches to composition: in the former case, the composer begins by working out the architectural and global aspects of a composition, then hones in on the details; in the latter case, he starts with small cells or gestures and develop these into a piece, deriving the architecture from these low-level materials' own immanent properties and implications. Both of these positions are of course vast simplifications; most composers simultaneously employ some degree of both; the potentially antagonistic consequences of their co-existence in the compositional process can serve to energise the whole work. There are few more disappointing pieces than those which seem to consist of a reasonably well-judged overall structure, but in which the small-scale material is little other than 'filling', or conversely those works that pedantically develop their material aimlessly, their composer never seeming to stand back and consider the macroscopic properties of the work, its architecture or drama.

This dichotomy can also be applied to performance. Many performers employ a combination of the two approaches when learning a piece. Nonetheless, I do not intend to infer from this that

28 Though, conversely, one's ability to sight read might be heightened by awareness of the possibility of the former approach.

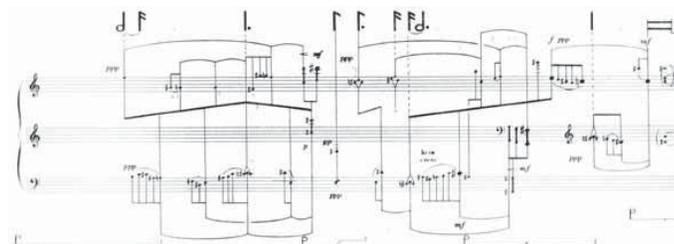
29 See Ian Pace, 'The Panorama of Michael Finnissy (I)', in *Tempo* No. 196 (April 1996), p. 25.

some 'happy medium' is the optimum way to learn any work; rather the particular degrees of emphasis, as manifested on various levels, are crucial in enabling one to learn the works at all, and should continually be re-evaluated when approaching each new work. Furthermore, the very sequence of learning, and the priorities applied during the different stages, affect and reflect both one's own perception of the work (itself sometimes in a state of relative flux) and how it is likely to be perceived by listeners.

A piece which raises these issues is Stockhausen's *Klavierstück X* (1954–55, rev. 1961). This work of a little over twenty minute's duration has become notorious as a result of several of its attributes. One is the use of glissandi in clusters, necessitating the pianist's wearing of fingerless gloves to diminish friction with the keys in the process of so doing (though alternative approaches have been tried, using talcum powder on the keys and so on). Another is the highly virtuosic and volatile continuous passage at the very beginning of the work, which is then set into relief for the remainder by virtue of the separation of passages with silences. Stockhausen composed it using a sophisticated system (detailed amply in Herbert Henck's book on the work³⁰), involving post-serial techniques of permutation for various parameters, so as to create a particular type of distribution of a range of fragments, between which there are a plethora of multi-layered correspondences achieved through other highly developed compositional techniques. On the most basic level, I hear the work as opening with a sharply characterised 'cosmic explosion' (itself with a high degree of inner variegation) which recedes a little so as to allow greater apprehension of the various categories of fragments (or atomic dust, if one likes) that emerge out of such an explosion. At least, that is my overall perception, derived first from hearing the work played by others, then modified and nuanced on the basis of learning and then performing (and re-learning) it on

30 Herbert Henck, *Karlheinz Stockhausen's Klavierstück X: A Contribution Toward Understanding Serial Technique*, second edition, translated Deborah Richards, Cologne 1980. For the most perceptive and well-researched of Stockhausen's early compositional aesthetics and techniques, including within the *Klavierstücke*, see Christoph von Blumröder, *Die Grundlegung der Musik Karlheinz Stockhausens*, Stuttgart 1993.

repeated occasions. Others might find different aspects of the work of greater interest, which will affect how they approach both learning and performing it. To be more specific, Stockhausen's use of pitch (including the pitches at which cluster glissandi both begin and end) is carefully controlled, generally exhibiting types of serially-informed distributions that mostly eschew anything with too obvious tonal implications or other forms of directional harmony (there are a few passages which are exceptions to this), including in those short sections which limit themselves to a restricted gamut of pitches. This necessitates care that one does not inadvertently play such wrong notes as might produce unwanted directional harmonic implications, but perhaps does not require such a high degree of attention to every pitch as would be required in a tonally or post-tonally organised work. Dynamics, on the other hand, are extremely carefully gauged, variable (but not to such an extent as produce a totally decentred experience of dynamics, as might be said of a work such as *Kreuzspiel*, in which every note in the piano has a different dynamic), and are intrinsic to articulating the drama of the work. In many passages, one encounters lines of pitches which form linear sub-strata of wider textures, indicated and manifested through the use of dynamics. One of these would be the passage on the second system of page 13 (Example 13). In this case such an effect is also produced by the contrast between grace notes and more sustained durations.



Example 13. Karlheinz Stockhausen, *Klavierstück X*, p. 13, second system.

If one looks at the succeeding fragment on the top system of page 14, it can be seen to grow out of the pitches made to sustain at the

end of the preceding passage, with the addition of a low B. Something akin to a conventionally lyrical line emerges out of a more diffuse and aperiodic texture.

But Stockhausen's scheme for notating duration (and thus, by implication, metre and rhythm) demands the closest attention in the context of this article, as well as in my opinion in the conception of the work as a whole. The score is divided piecemeal into consecutive short segments, notated continuously, each of which is assigned a duration relative to a basic unit. This is indicated through the use of standard durational units, quavers, crotchets, minims, etc. Every passage demarcated by such units is to be fitted into such a duration, relative to a basic pulse which is 'as fast as possible'. This takes some work on the part of the performer to execute satisfactorily, not least because the spatial distribution of the score by no means necessarily corresponds to the intended durations. If one looks, for example, at the second system of page 2 (Example 14), from the notated minim underneath the instruction about cluster glissandi onwards, one sees one group of units (beginning with a cluster glissandi starting at G-C) to be played within the duration of a minim, then another group within the duration of a semibreve tied to a quaver i.e. a total duration of nine quavers. However, the amount of horizontal space assigned to this latter group is somewhat less than two-and-a-quarter times that of the previous group (two-and-a-quarter being the ratio between the two durations). The sloping beams in the second group indicate free *accelerandi* and *ritardandi* (for upwards and downwards slopes respectively). The first group contains six equal units, which I thus play roughly as quaver triplets; the second group contains fifteen unequal units. The mean duration of these would thus be a unit of $9/15$ quavers, so $3/5$ of a quaver, very marginally less than $2/3$, which is the duration of a triplet quaver. The first units in the group need to start at a slower pace than this mean unit; yet, they are notated considerably closer together than those in the preceding group. If one also looks at the second group as a whole, one will see that the downward slope of the beam incorporates a few more chords than the upward one, suggesting a slightly longer duration to be employed on this downward slope, which can if one chooses be used to achieve a certain rhetorical

effect as the group approaches its conclusion (this effect is also produced by the particular dynamics and pitches employed).



Example 14. Stockhausen, *Klavierstück X*, p. 2, second system.

This particular approach to notating duration has various consequences. Perhaps the most significant of these is that which differentiates it from, say, Stockhausen's earlier *Klavierstück VI*, in which Stockhausen notates a sliding scale of pulse throughout (though this was a late addition to the score for publication³¹). That notational scheme, as with most of the other earlier *Klavierstücke*, derives duration, metre and rhythm in terms of a continually shifting *pulse*, even where this is not directly played (in the sense of there being periodic notes). In those pieces, the performer is presumably intended to think through the work, both when practising and performing it, in terms of these shifting pulses which are indicated through metronome marks. *Klavierstück X* is quite different; there is a singular pulse from which one conceives time units, *within* which groups are to be accommodated. A somewhat crude way of describing the distinction would be to say simply that the earlier pieces are predicated upon metre, and this is predicated upon duration. If I say that in *Klavierstück X* pulse is for the most part merely a highly localised

³¹ I am grateful to Pascal Decroupet for pointing this out to me. See also Decroupet, 'First sketches of reality. Fragmente zu Stockhausen («Klavierstück VI»)', in Finnendahl (ed), *Die Anfänge der seriellen Musik*, pp. 97–133, on Stockhausen's use of tempo and rhythm in this work and its different versions.

affair, compared to the earlier works, I do not simply mean that the latter contain more explicitly articulated pulses compared to this (actually in some ways the reverse may be true), but that in terms of the psychological consequences of the notation, pulse may become less central to the performer's experience when playing it. Of course the caveat must be that this depends on the particular strategies employed for learning and performing it; nonetheless, I believe this distinction to hold true.

This view perhaps reflects certain ideologies I bring to bear upon the work, which entail their own consequences, one of which I will try and demonstrate now. The passage on the top system of page 3 (Example 15) is highly demanding from a pianistic point of view.

Example 15. Stockhausen Klavierstück X, p. 3, first system.

In the group below the minim tied to a semiquaver, there are continuously shifting chords in quick succession; the same is true of the groups that succeed it. By virtue of the notated durations, several of the groups of individual chords come to have a duration of approximately a triplet semiquaver. This I conceive not so much in terms of a pulse as an estimation of the duration with which to start each group, allowing for some degree of flexibility for practical or other reasons. However, at the basic overall pulse that I choose for the work, these passages are likely to sound somewhat frantic, hurried, and may lose some clarity in the process. By virtue of the particular set of priorities I bring to bear upon the piece, I decided that this effect, including the slight loss of clarity,

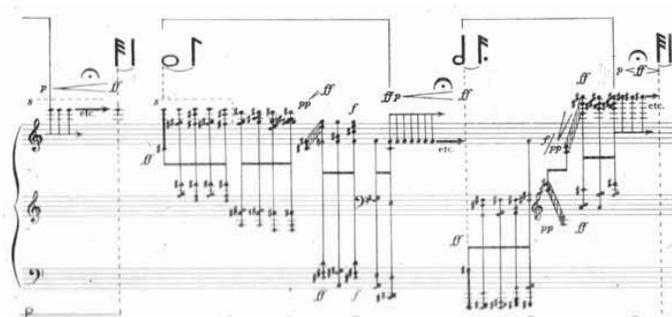
is one with which I am happy when it enables me to maintain the sense of drama that results from the rapid tempo. That decision itself results from other convictions concerning the relative importance of pitch, articulation, clarity of gesture, and so on. In the process of practising or re-practising this, I play these things slowly and with a certain fastidious attention to pitch accuracy on some occasions, to evenness of duration at others, or to clear distinctions between articulations or dynamics at others. At other times, my attention is directed more to the totality of the groups or their interrelationships, and to maintaining the speed; because of my own individual prioritisation, these aspects of the music are more at the forefront of my mind when performing it. For other parameters, to some extent the practice hopefully 'does its work'. My choice of prioritisation of *psychological focus* when performing in concert has further implications: it enables a degree of spontaneous interaction with respect to these aspects of music at that very moment of performance, which is less possible with other aspects. And for that reason, that spontaneous focus almost certainly manifests itself in a hierarchy of *projection* at that time.

Henck advocates that the performer should create his own tape loops with verbal countings of durations that delineate each group³². The performer can then practise the piece with these to ensure the durations are accurate. I considered doing this, but ultimately decided against it after finding that it was possible (with a reasonable amount of experience of learning very complex rhythmic patterns in other music) to attain the durations simply by counting; by this strategy I felt that, psychologically, the possibility of being able to maintain some intelligent sense of flexibility was more immediate, rather than feeling a little oppressed by the ominous sound of this click track haunting me even when it is not actually present. A click track, like a metronome, is inhuman in the sense that it derives from the process of exact and simple calculations, wholly avoiding the minute intricacies or even personal vulnerabilities that would in some sense inform a human attempt to produce or think such durations oneself, whether from a con-

32 Henck, *Stockhausen's Klavierstück X*, pp. 63–64.

ductor, following another player, or simply counting to oneself. It is for this reason I prefer the latter option, which leaves open the option of some degree of interaction between the counting and one's response to the actual material being played.

What I have just suggested about an ongoing interrelationship between counting and responding to the demands of the material could easily be misinterpreted: some could take it to mean that simply one should play 'what the material demands in and of itself' and adapt the mental counting around that. That perspective assumes an organic relationship between the durations and the material which I do not believe to be appropriate in this piece; rather, the durations sometimes constitute an external, inorganic imposition upon the material. To give another example of this: if one looks at the second system on page 29, there is a series of chords grouped by beamings, to be accommodated within a duration of a semibreve tied to a quaver i.e. a total duration of nine quavers. At a basic quaver pulse of somewhere between 96 and 120, these chords are relatively slow, indeed much slower than I have otherwise heard.



Example 16. Stockhausen Klavierstück X, p. 29, part of second system.

Now, some might feel that the chords, especially in terms of their resemblance to other passages or general material in the piece, imply a somewhat quicker duration. Within such a context, this reading might seem more 'natural' or familiar, regardless of the actual duration Stockhausen writes, and the slower tempo sounds

contrived. But I believe that a performer should at least consider the possibilities that a more contrived result could have been desired, intended, or at least allowed, or that there may be other way of creating musical sense out of such defamiliarised material.

The response of some to the raising of such questions might be to invoke the old cliché of the 'spirit' versus the 'letter' of the text³³. But this is a false dichotomy: how one conceives the 'spirit' affects how one interprets the 'letter', and conversely how one interprets the 'letter' affects how the 'spirit' is perceived, either by oneself or by a listener. The process of learning and performance entails a continuous two-way interaction between these poles, each one frequently modifying the other. In the case of the passage in Example 16, one's perception of the 'spirit', entailing a certain set of priorities, might suggest a particular tempo, possibly a quicker one. But conversely, one should be equally open to the possibility that close investigation of the letter of the text, specifically in this case the notated duration, might modify one's perception of the spirit of this particular passage and its relationship to the rest of the work. The text is not simply something to accommodate within one's *a priori* conception of 'what type of piece this is' (or, more broadly, 'what type of composer Stockhausen is' or even 'what music should be in general' It is surely fruitful to allow such a conception to be informed and nuanced, even perhaps significantly altered, both by one's close study of the details of the text, and other wider self-reflexive considerations concerning one's reasons for arriving at such *a priori* conceptions in the first place. And this parallels the processes that are experienced by many composers who begin work on a piece with a certain generalised conception of what they intend, but as they work in more detail upon both micro- and macroscopic elements, discover these to have immanent implications that exceed the boundaries of such an initial conception, which becomes enriched as a result.

My final example is the opening of Ferneyhough's piano piece *Opus Contra Naturam* (1999–2000), which I premiered. The first

33 In recent times, this dichotomy is invoked strongly by Richard Taruskin, in 'The Limits of Authenticity', in *Text and Act*, pp. 75–77

bar of the piece (Example 18) contains startlingly complex rhythms, with three or even four levels of nested tuplets.

The image shows a musical score for a piano piece. It is in 16/16 time, marked 'Penseroso, vacillando' and '♩ = 54'. The score consists of two staves, treble and bass clef. The music is highly complex, featuring multiple levels of nested tuplets. Brackets and lines above the notes indicate these groupings, with ratios like 11:7, 5:3, and 7:4. The dynamic marking 'pppp' is present at the beginning and end of the passage. The tempo is indicated as '♩ = 54'.

Example 18. Brian Ferneyhough, *Opus Contra Naturam*, opening.

An obvious immediate question is ‘can these rhythms possibly be played accurately?’ I believe this is the wrong question; rather we should ask ‘why has Ferneyhough notated them in this manner?’ It would be disingenuous to deny that there is any redundancy whatsoever in Ferneyhough’s notation from a performer’s point of view. Indeed, he has made clear that the score for him represents something of an ideal rather than simply a specific set of instructions³⁴; some of these may be the result of particular compositional procedures that could be notated differently or more simply with little perceptible difference in terms of the audible result, though I believe this situation to be very much the exception rather than the rule.

With the ‘structuralist’ model of notation that I mentioned at the beginning of this article in mind, we should look at this first bar as a means of channelling the performer away from what might be more habitual or familiar modes of interpretation. Take, for example, the first group: relative to the basic metronome mark of quaver = 54, we have first an 11:7 tuplet. An 11:7 quaver at this tempo would be at a rate of approximately MM 84.9. A further 5:3 modification produces MM 141.4, so a semiquaver within

³⁴ For Ferneyhough’s most extensive thoughts on notation, see ‘Interview with Philippe Albèra’, in James Boros and Richard Toop (eds.), *Time is Time: Temporal Signification in Music*

such a group would be at MM c. 283. Thus a group of three semi-quavers has a total duration of a single pulse at about MM 94.3. That provides duration for this group and a 3:2 relationship with the group that follows. Now, within this first group, there is a further 5:3, modified by yet another around the second to sixth semi-quavers. At this point, now that I have such a duration, I can execute a group of notes which in their total duration end a little before the duration is over, thus providing the rest, and at which the second to sixth notes are at an accelerated pace. This pace is not quite as fast as a doubling of the pulse would be, however (that would be a 6:3 relationship). Whether I would play this rhythm ‘accurately’ is perhaps not the point; I may not know if it is exactly ‘right’ in the sense of how a computer would play it, but I can detect certain results that are definitely wrong. It would be wrong if I played the group entirely evenly, if the second to sixth notes existed in a 2:1 metrical ratio to the first, or if the group took so long that the rest was imperceptible. And the durational relationships between the different groups can be gauged in a similar manner. Here I am employing a combination of both positivistic and structuralist approaches to interpreting the notation, which in this situation I find most fruitful, positivistic in the sense of calculating the metronomic durations down to the second level of nested tuplet, structuralist after then.

Some of Ferneyhough’s markings may be the result of strict application of compositional procedures, some more intuitively applied. Whichever, this approach is the result of a conviction, based in part on what Ferneyhough has written about his conception of notation, that the detailed markings are a way of negating habit, a way of creating figures that exceed the boundaries of the ‘already heard’, quite simply a ‘cultural’ rather than ‘natural’ approach to compositional production. All composers, except for the wholly derivative, do this to some extent, Ferneyhough simply more radically than most. Perhaps this should be considered in light of the fact that Ferneyhough does indeed employ a gestural vocabulary that frequently has clear late Romantic or Expressionist connotations, thus making more urgent the necessity of individuation.

Now, I could not think about all these things when actually performing the bar. But in the process of learning it, I try to pay

attention to these aspects, especially the need to avoid slipping into habit, until the results become 'second nature' when I can confidently execute them when relaxing a bit more, and thus pay more attention to other aspects of the music. It is from *that* perspective that it then becomes possible to introduce some other freedoms in the execution without hopefully reverting back to habit.

In many of the examples I have discussed, the aesthetic ideals I am aiming for resist the 'organic'; rather, they stress discontinuity, tension between co-existing parts that are not necessarily made to blend seamlessly, and above all, defamiliarisation. These ideals and their concomitant strategies can easily turn into a fetish of their own, becoming mannered and indeed 'familiar', thus negating their original function. I have certainly fallen into this trap myself on some occasions. Interpretative strategies need to be continually re-examined when learning a new piece or re-learning an old one. But at heart they represent a strategy of *resistance* in performance; resistance towards certain ideological assumptions that entail absorption of musical works into the culture industry. This absorption itself entails a harmonisation of the antinomic elements within such works, the smoothing out of such discontinuities as can produce psychological estrangement or simply cause fragmentations and incompleteness within the musical experience such as demands some active input from the listener if their listening experiences are to become coherent. If these are not papered over, then the musical work repudiates passive listening, much more so than when it is presented as an organic and hermetically-sealed whole. This type of musical aesthetic, whereby musical works exist in a critical and dialectical relationship to wider experiences and consciousness (and by implication to the world), is to my mind one of the most important ways in which music can become more than passive entertainment. Looking hard at the relationship between notation, metre and time, is one of the most powerful ways of enacting this in practice.