6. Playing in Time: Caged Bird

On 15 January 1941 a crowd of prisoners assembled in Stalag VIII-A, a POW camp south of Görlitz.[1] The occasion was a concert. Music had been provided by a fellow prisoner for those instruments available, an unusual combination of clarinet, violin, cello, and piano. On piano was the composer himself, a young man serving in the French army as a medical auxiliary, Olivier Messiaen. Messiaen called his piece *Quatuor pour la fin du Temps*.[2] The title might seem appropriately apocalyptic, but this was not Messiaen's intention. Rather, 'the end of Time' proclaims the ending of conceptions of *durational* time: 'the end of notions of past and of future', in Messiaen's words.[3] That includes the ending of conventions of *musical* time; Messiaen's call was radical.

Quatuor pour la fin du Temps is a monument of twentieth-century art. The quartet's iconic status is assured and deserved but, as with all legends, it is prone to exaggeration; and, to compound matters, coupled with Messiaen's often poetic choice of words, it is particularly susceptible to misinterpretation. Messiaen's words should be read sensitively and with humour; this is something to bear in mind particularly with regards to his thoughts on philosophy and religion, but it is also an issue encountered almost immediately in the attempt to establish the circumstances of the quartet. For example, compare Messiaen's narration of the first performance of *Quatuor* with that of Étienne Pasquier (the cellist, and Messiaen's superior in the medical corps):[4] Messiaen's audience is twenty times the size, the cello is missing a string, and the piano keys are sticking.[5] 'You know I had four strings', Pasquier clarified some twenty years later.[6] Between the two of them one imagines quite different events. However, such discrepancies are tolerable because the accounts converge on the most important fact: that there was a performance of *Quatuor pour la fin du Temps* in Stalag VIII-A is remarkable in itself. It is remarkable because it is almost inconceivable that Messiaen could present something so radically new as *Quatuor* in such circumstances removed to the point of absurdity from the familiar contemporary scene of the Parisian elite. Moreover, as well as being remarkably new, *Quatuor* is incredibly complex—*complex*, not *complicated*, something that would be especially superficial and awkward in the circumstances. Messiaen takes little for granted: *Quatuor pour la fin du Temps* is new and complex, but it is also direct. 'Never', recalled Messiaen, 'have I been heard with such attention and understanding'.[7]

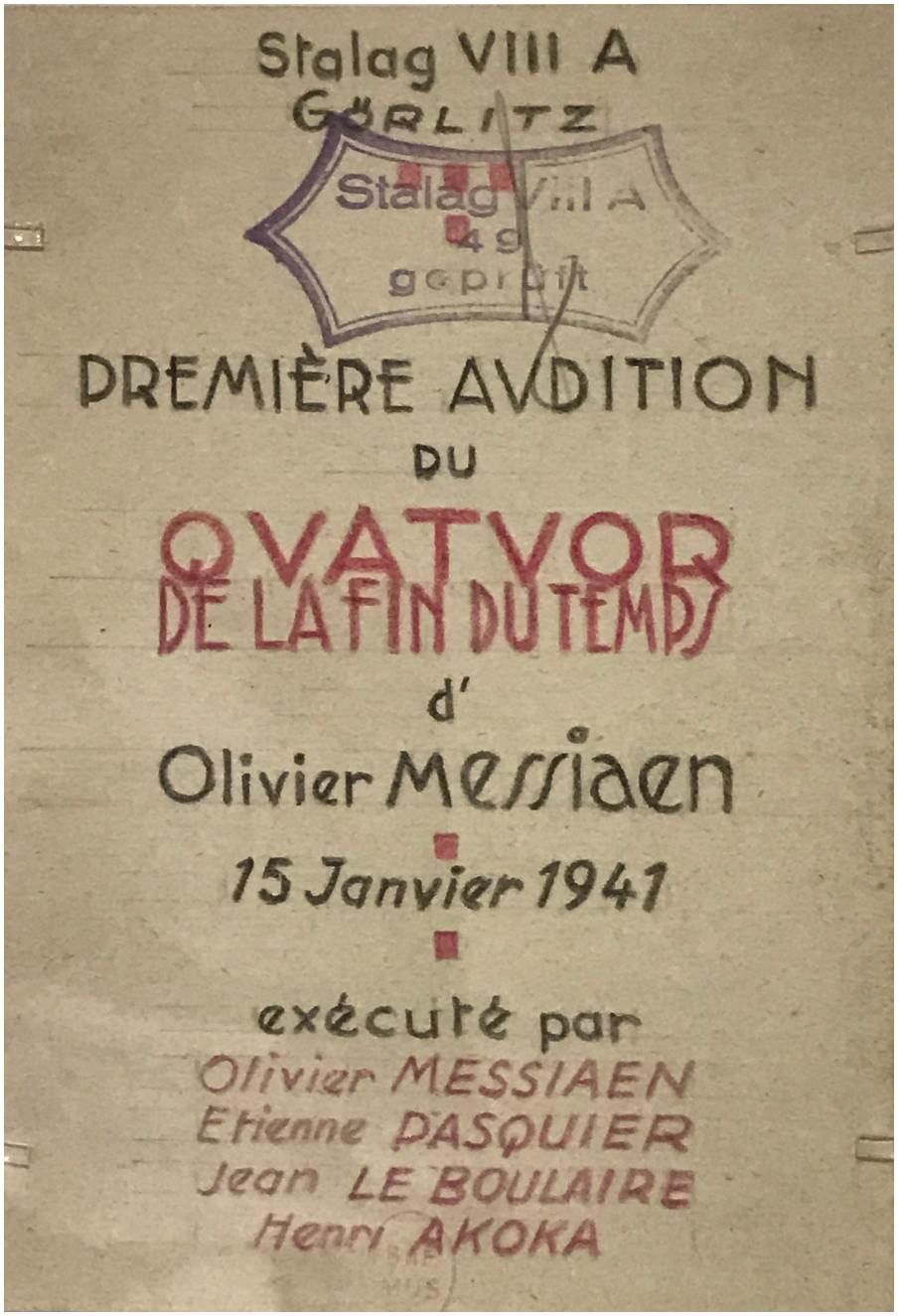


Fig. 6.i. An invitation to the premiere of Messiaen's *Quatuor*, drawn by a guard, and bearing a stamp of Stalag VIII-A.

6. Playing in Time

The quartet spans eight movements, over which Messiaen draws on the available instrumentational variety: there is a movement for solo clarinet, duos for each of the strings with piano, a trio for the three instrumentalists, and the remaining four movements are written for the complete ensemble (see fig. 6.ii), a balance of six movements for each player. Together, the eight movements of *Quatuor* constitute a varied and cohesive structure.

But the provenances of the musical materials that constitute the eight movements of *Quatuor* are less than cohesive. Simply put, the notion that Messiaen composed *Quatuor pour la fin du Temps* in its entirety while detained in Stalag VIII-A is false. Furthermore, the extent to which *Quatuor* was conceived in Stalag VIII-A is a matter of contention. For example, Messiaen met clarinetist Henri Akoka while stationed in Verdun; before long they were forced to flee (a consequence of Hitler's Western Offensive), but in the process they were apprehended by German forces. Now captive, they were made to endure a lengthy march in the direction of Nancy.[8] Near Nancy they were held in a field, a kind of transit camp which preceded their transportation to Stalag VIII-A. It was in this field that Messiaen listened to Akoka sightread some music; this would become the third movement, 'Abîme des oiseaux'.[9] This is a simple example that illustrates a conception and composition of the music of *Quatuor* existing beyond the confines of Stalag VIII-A. However, it was after his arrival in Stalag VIII-A that Messiaen met violinist Jean le Boulaire; and, later still was there access to a piano.[10] So it is the case that the ultimate conception of the work as a quartet for violin, clarinet, cello, and piano grew in Stalag VIII-A.

It might seem to follow, then, that the development of the work, and its eventual manifestation as the quartet that materialised in Stalag VIII-A can be plotted as a chronological series of meetings from Pasquier, through Akoka and le Boulaire. It is impossible to say how true this is; and Messiaen's own recollections seem to contradict various evidence.[11] What is true, though, is that the *composition* of the quartet's musical material is not linear like this: the story of the notes themselves is complicated. For instance, the haunting cello solo of 'Louange à l'Éternité de Jésus', the fifth movement, is found in *Fête des belles eaux* ('Oraison'), an unusual work for six *ondes Martenots* commissioned for the 1937 Paris Exhibition; or, further back still, 'Louange à l'Immortalité de Jésus', the eighth movement, was refashioned for violin and piano from *Diptyque* (1930), an early organ work. These examples evidence material found in *Quatuor* yet written years before the quartet was conceived.

Movement	Instrumentation			
	vln.	cl.	vc.	pn.
i	x	x	x	x
ii	x	x	x	x
iii		x		
iv	x	x	x	
v			x	x
vi	x	x	x	x
vii	x	x	x	x
viii	x			x

Fig. 6.ii. Table displaying instrumentation of each movement of *Quatuor*.

The composed materials which predate Messiaen's detention in Stalag VIII-A represent different instruments, different audiences, and different periods in Messiaen's life. Notwithstanding, these examples share in common their manifestation as solo movements, generally speaking, a constitution more readily adaptable for other purposes, and more easily sharable. But there is at least one further instance of musical material predating the conception of the work as a quartet: and it is a significant anomaly. I refer to 'Liturgie de cristal', the opening movement. (It is also the case that this movement is the principle analytical focus of this chapter, so it will be beneficial to examine its provenance, and unite these two strands of scholarship.) Firstly, that 'Liturgie de cristal' has an earlier existence might seem surprising since it features all four instruments, a fact previously used to support the argument for the movement's conception in Stalag VIII-A.[12] But new evidence suggests to the contrary. The release of Messiaen's personal archives into the French national collections has brought to light various documents relating to his detention in Stalag VIII-A: seventy-eight pages, all bearing the Stalag stamp.[13] In short, they evidence material of 'Liturgie de cristal' scored for flute, celeste, xylophone, and piano. A thorough examination of these papers has been promised for some time, and we can hope it reaches publication soon; for now, let it suffice to read that 'Liturgie de cristal', too, has a provenance beyond Stalag VIII-A.

So, there is evidence of significant musical materials which predate Messiaen's detention in Stalag VIII-A; and, new evidence offers fresh ground for future scholarship in this area. At the same time, the history of the music as it manifested as *Quatuor pour la fin du Temps*, and culminated in a performance in the freezing cold to an audience of hundreds of prisoners-of-war on 15 January 1941 in Stalag VIII-A, is so visceral and compelling that the quartet is bound to a kind of legendary status; and it's because of this legendary status that the quartet is undetachable from its history in spite any new evidence of old influences. Such seeming contradictions between old and new find at least some resolution in Messiaen's 'end of notions of past and of future'.

Now, a philosophical reading of 'la fin du Temps' conveys a reaction to the restrictions imposed by conceptions of *linear, durational* time (like Messiaen's "end of past and future"). But the title offers more still: as mentioned at the very start of this chapter, 'the end of Time' is also a call for the end of conventions of *musical* time, a reading of the title Messiaen would later admit.[14] It is a radical ambition. At its simplest, consider a bar in three. Here, conventions of musical time determine the first beat be strongest, then the second, and lastly the third, the upbeat which anticipates a strong beat at the start of the following bar. This order is interwoven with harmonic conventions. Take dissonance, for example: dissonance is prepared on a weak beat, sounded on a strong beat, and resolved on another weak beat. In three there is only one strong beat so dissonance sounds on the first beat of the bar; notationally, it is the barline that identifies the strong beat at the start of the bar. So, conventions of musical time provide a framework for the expression of dissonance; and, this expression is codified notationally. Thus Messiaen's call constitutes a reconsideration of the relationship between time and sound, and how it is represented notationally.

Now, dissonance exists only in relation to consonance; in other words, the identification of dissonance is possible only within an ordered system, and dissonance constitutes a kind of disorder within this. In this sense, the expression of disorder relies on a conception of order; thus disorder itself expresses also order. What I am getting at is the intrinsic relation between musical expression and the conception of order: that disorder *is* expression, and that the composition of expression is codified by the conception of order, which is itself represented notationally. So, 'the end of Time' represents not only the relationship between time and sound, but also the relationship between time and conceptions of order. Essentially, *Quatuor pour la fin du Temps* manifests a reframing of what constitutes order, and how order is expressed in time. Broadly speaking, such conceptions and conventions of order are a product of the

rationalisation of the early Enlightenment: they are conventions eternalised in the music of Bach, and codified by a Germanic praxis of Haydn, Mozart, Beethoven, Schumann, Brahms… Messiaen's call for the end of time was indeed radical: *Quatuor* represents, as it were, an ordering of order itself.

My intent now is to demonstrate the ways the music of *Quatuor* fulfils such a bold proclamation. As mentioned, my principal interest is 'Liturgie de cristal', the first movement. The third part to this chapter examines the early existence of the music, engaging with new evidence available recently from the French national archives; in the second part, close analysis offers a proof for Messiaen's 'end of Time', and I propose two new presentations of Messiaen's musical material; for now, I will introduce the movement.

'Liturgie de cristal' is the opening movement of the quartet; it is written for all four instruments. Messiaen describes the movement in his preface to the score:[15]

> 1) "Liturgie de cristal". Between 3 and 4 in the morning, the awakening of birds: a blackbird or a nightingale improvise alone, surrounded by sonorous dust, by a halo of trills lost very high in the trees. Transpose this on the religious plane: you will have the harmonic silence of heaven.

Turning to the score, the first thing to observe is the distinction between the writing for violin and clarinet on the one hand, and cello and piano on the other. This is a result of compositional process: Messiaen composes isorhythms for cello and piano.[16] Simply, it is a compositional technique which combines a series of notes, a *color*, with a series of durations, a *talea*, only the length of the series differ (ie. three notes, four durations). Therefore, when *color* and *talea* sound together one series will present fully before the other (ie. the three notes of the *color* sound but one duration remains of the *talea*); this series repeats while the other continues. The isorhythm can continue indefinitely, an economical way to create varied material. In most cases there will be a point during the isorhythm whereby the beginning of the *color* and *talea* realign. We could call this a point of resynchronisation (in this example it would take four repetitions of the *color* or three of the *talea* to resynchronise).

In 'Liturgie de cristal' both cello and piano play independent isorhythms. They are more complicated than the above example. The cello plays an isorhythm based on a *color* of five and a *talea* of fifteen. Since five is a factor of fifteen, the isorhythm contains three repetitions of the *color* to one of the *talea*; this simple division is unusual. The

piano isorhythm is based on a *color* of twenty-nine and a *talea* of seventeen. Since these are both prime numbers they share no common factors; therefore, it would take seventeen repetitions of the extensive *color* or twenty-nine of the *talea* to resynchronisation. In practice, the time it would take for the piano isorhythm to resynchronise would exceed significantly the temporal scope of the two-minute movement. If we were to imagine a shared point of resynchronisation between cello and piano isorhythms (I am describing a kind of double resynchronisation), its location in time would be beyond the mathematical comprehension of the author. This has several consequences. The first is that we are presented with a snapshot of this compositional procedure: the isorhythms are familiar but ever-changing, and the prospect of resynchronisation permits reflection but is ultimately too complex to comprehend. In this sense, Messiaen's composition of isorhythms provides a simple metaphor for notions of the eternal, an elegant representation of the "end of past and future". As it is, the third chord of the fourth iteration of the piano *color* is mysteriously absent. Messiaen was obviously aware of this though I suspect it is a result of a copying error rather than a deliberate omission. In any case, this disruption of the isorhythm results rather elegantly in the impossibility of resynchronisation, strictly speaking.

The second consequence relates to the notation of musical time (it is more complex and will be important later on). For, an isorhythm is an independent procedure; an isorhythm plays out irrespective to other material or to how musical time is notated and segmented. In other words, the fabric of *color* and *talea* remain consistent regardless of what may be playing elsewhere, or where the barlines are situated: ultimately, an isorhythm manifests independent to conventions of musical time. The point I am making is that the way Messiaen composes this material is a realising of the 'end of Time'.[17] Indeed, on closer inspection we find that the way Messiaen's harmony expresses subverts its conventional relationship with musical time. There are a number of steps to prove my point, one of which is to distinguish what constitutes dissonance in the first instance; you will find this analysis in the second part to this chapter.

Turning to the other two instruments, the compositional techniques that underlie the writing for clarinet and violin are different. This material is liberated from such predetermined procedures as isorhythm. Quite apart from this, the clarinet and violin are instructed to play 'like a bird'; and, the construction of this material is expectedly free, corresponding to the 'halo of trills lost very high in the trees' which Messiaen describes in his preface.[18] The distinction between structured isorhythm and

seemingly unstructured birdsong is the basis for my identification of a duality in this movement.

Quatuor dates before birdsong imparted such a strong influence on Messiaen's work as it would start to in the early 1950s, so, relatively speaking, the presence of birdsong in *Quatuor* is modest. Nevertheless, context to Messiaen's composition of birdsong is worth developing because 'Liturgie de cristal' provides the first instance in which the species of bird is identified: the description of the movement in the quartet's preface names 'a blackbird or a nightingale'. Of course this is realised by the clarinet and violin, whose music is to be expressed 'like a bird'. Furthermore it is possible to recognise the blackbird in the clarinet, and the nightingale in the violin, but this is far from strict quotation (later compositions notate birdsong more precisely).[19] Indeed, this material that characterises the clarinet and violin is poetic, like a kind of improvisation woven from various distinctive figurations. The violin is very quiet, very high, and plays few motives within a small register. The clarinet is more expressive: its figurations are less distinct, and have great rhythmic variety, often emerging from the texture in moments of sudden dynamic contrast. Exceeding even the piano, and spanning nearly three octaves, the clarinet part has the greatest pitch range of all.

Here, then, is our duality: one part rigid compositional structures, predetermined, highly ordered; the other improvisatory. Next to the isorhythms, the birdsong represents a kind of disorder, but of a different kind than described earlier.

So, the duality manifests a relationship between compositional order and disorder. But—and this leads to the most complex point of the argument—on the page, the notated life of this material articulates the inverse relationship with order, though it might seem to be counterintuitive. As discussed already, Messiaen's composition of isorhythm materialises a particular aspect of the 'end of Time', evident in the way the isorhythms operate independently to conventional systems of conceiving and notating musical time and how it is articulated in practice (the segmentation of staves into bars by barlines, and the grouping of notes therein to articulate the beats of a particular time signature *etc.*). This is proved later in the chapter, but, in short, this material transcends these conventions. However, the birdsong relates to these same conventions differently. The distinction I am trying to make is that, taken as a whole, the birdsong is composed within a temporal framework, segmented and definite, unlike the isorhythm, whose composition precedes such temporal conception. In other words, the birdsong materialises on the page *among* the bars, barlines, and isorhythms, the "sonorous dust" that "surrounds" it. This is a simple but important observation because it articulates a

key distinction between the two sides of the duality. And what we can draw from this is that the isorhythm, precomposed and highly ordered, *transcends* a notational framework, whereas the birdsong, improvisatory and seemingly disordered, is *influenced by* the same notational framework, which imposes upon it conventional order. That is, the birdsong is composed in accordance with the notated structures on the page—the isorhythms, and the bars which contain it. It is also the case that the location in musical time of particular birdsong figurations tends to articulate these notational structures. Ultimately, the notational framework, which the isorhythm transcends, cages the birdsong.

So, bars and barlines constitute notational structures by which musical time is ordered, and Messiaen renounces these conventions, conventions codified by a historically Germanic musicological praxis. Taken together, is it not the case that *Quatuor* is a representation of Messiaen himself, behind literal German bars? A twentieth-century poet, Maya Angelou, who may never have known the quartet wrote of a caged bird: 'His wings are clipped and his feet are tied / So he opens his throat to sing'.[20] Given time and space to compose, 'in the midst of three hundred thousand prisoners,' Messiaen recalled, 'I was probably the only not to be one'.[21]

Or take Messiaen's physical circumstance, whose architecture offers a remarkably similar analysis. Figure 6.iii is an arial view of Stalag VIII-A. Notice the distinction between natural and unnatural: the constructed camp and surrounding countryside, a distinction we perceive due to the order of certain structures. Of course, I am prompting comparison to the musical duality identified previously, the ordered isorhythm and improvisatory birdsong. Pressing further still, take the isorhythm, which transcends notational structures, alongside the birdsong, which is influenced by these structures. It is a similar relationship to that Messiaen experienced in Stalag VIII-A: within the structure of the camp Messiaen describes freedom; outside this structure his fate lay in certain capture.[22]

The coexistence of differing relationships with musical time and its notation effects an unusual phenomenon in performance. As it were, the playing together of multiple temporal interpretations dramatises relationships between sound, order, and time. Messiaen composes an exceptionally ambitious social dynamic: performance of 'Liturgie de cristal' necessitates the active negotiation of what it means to play in time.

And it isn't easy. Of course, it would be possible to perform every note of 'Liturgie de cristal' in strict accordance with conventions of musical time, but this would constitute a sad misinterpretation. Moreover, the task to maintain a dialogue is compounded by simultaneously having to navigate Messiaen's intricate composition of

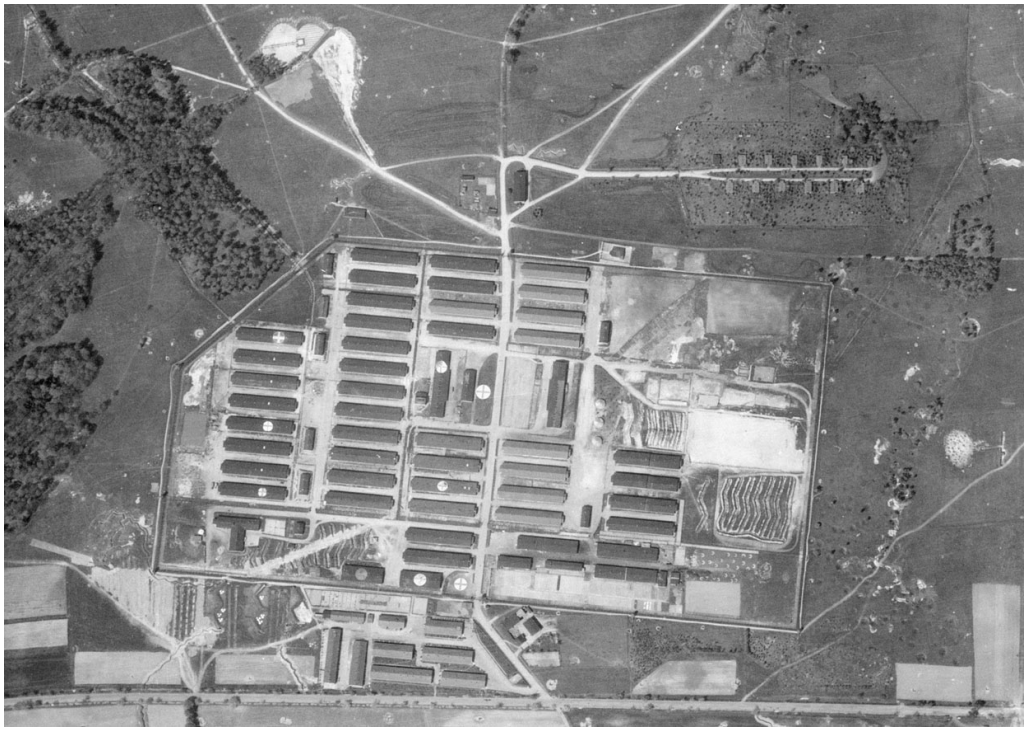


Fig. 6.iii. Arial view of Stalag VIII-A taken by the US army (1945). Image provided courtesy of Luftbild Datenbank.

rhythms. In this it is easy to be overwhelmed by Messiaen's detail, and, so to speak, to become imprisoned by the notation, foregoing balancing this complex negotiation.[23] Messiaen understood this was a possibility, to the extent that, in the preface, he advises against the procedure of counting semiquavers, which, while helpful in early acquaintance with the music, 'could weigh down annoyingly the performance in public'.[24] What's more, Messiaen counsels against absolute precision at the expense of the whole: 'Let them not fear exaggerated nuances, rushes, slowdowns, all of which renders an interpretation lively and sensitive.'[25] This is a remarkable statement because it actually names physical effects of the active negotiation between concurrent conceptions of musical time. Messiaen describes a performance that is lively *because* it "rushes and slowdowns", a social dynamic which is convincing *because* it is not constrained to the strict delineation of durational time. In place of strict linear time, Messiaen favours sensitivity to the other parts, accepting inevitable fluctuations in this time. This is what I mean when I refer to the active negotiation of what it means to play in time: a

convincing performance of *Quatuor pour la fin du Temps* requires the musicians play together, that they be chamber musicians. A recording exists featuring Messiaen at the piano (1956, rereleased Accord, 2001): it is astoundingly beautiful. It is also an example of Messiaen's "lively and sensitive" performance—that is, the notes aren't aligned vertically in the way strict linear time would effect.

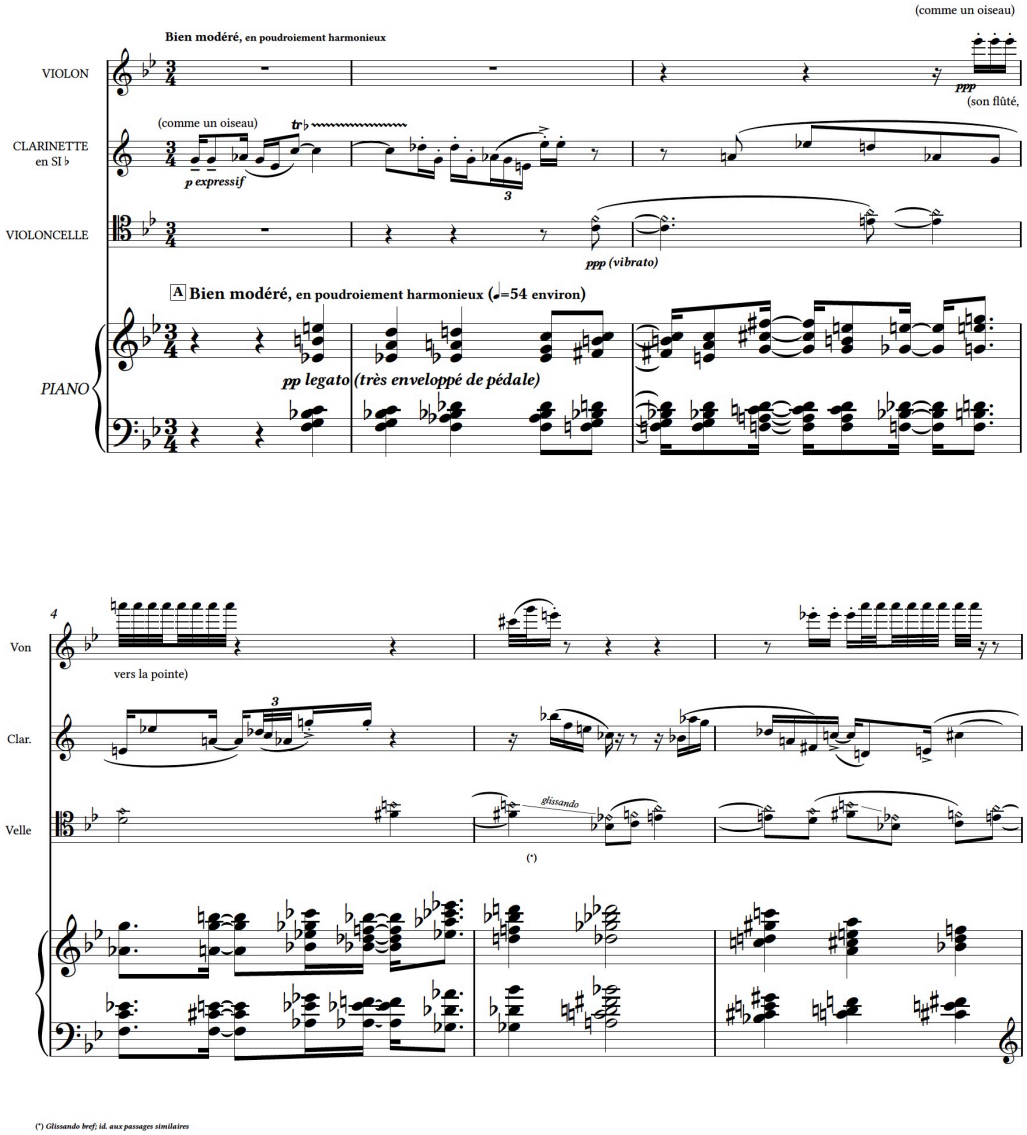
And, engaging with this dialogue between transcendent time and conventional time it is possible to lose a sense of real Time: *Quatuor* is music through which one can relinquish a sense of being "here", of being "in time".[26] The music is an invitation to suspend oneself in a gap between past and future. This remarkable state is the result of a radically new order of musical technique. Put simply, there is no development of material in conventional ways. In fact, by taking as an example simply the movement's opening eight bars, one can demonstrate the operation of essentially all aspects of 'Liturgie de cristal'. This is a highly unusual statement with respect to musical analysis in general, and a reflection of Messiaen's particular conception of Time which draws heavily on Augustine:[27]

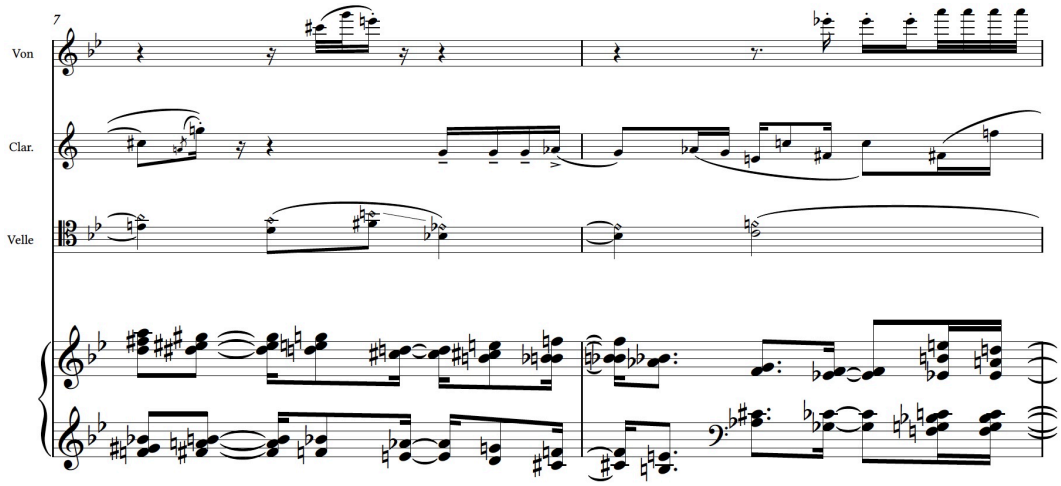
> if nothing were passing, there would be no past time: and if nothing were coming, there should be no time to come: and if nothing were, there should be no present time. Those two times therefore, past and to come, in what sort are they, seeing the past is now no longer, and that to come is not yet? As for the present, should it always be present and never pass into times past, verily it should not be time but eternity.

Indeed, Messiaen dedicates the quartet to 'the Angel of the Apocalypse, who raises a hand to heaven saying: "There will be no more Time"'.[28]

II

Fig. 6.iv. 'Liturgie de cristal', bars 1-8.





I have chosen the opening eight bars because they contain all the necessary information for the construction of the movement's two isorhythms. In other words, from these bars one could theoretically continue the piano and cello parts *ad infinitum*.[29]

The twenty-nine chords that constitute the piano *color* occupy just under eight bars, repeating in the final quaver of bar 8; the piano *talea* repeats at the end of bar 6; the cello *color* repeats numerous times in this extract, firstly on the fourth quaver of bar 4; the cello *talea* first repeats on the second crotchet of bar 8 (this is also an isorhythm resynchronisation since the fifteen durations of the *talea* are divisible by the five of the *color*).

Messiaen described the cello *talea* as dividing into two non-retrogradable rhythms, the longer of which consists of two phrases, reflections of one another which overlap over the quavers (fig. 6.v(a)).[30] In 'A Religion of Cycles', I demonstrated how the *talea* can be rewritten to form a single non-retrogradable rhythm (fig. 6.v(b)); arranged like this, when mapped onto the movement, the first six durations fit precisely into the rests before the cello entry at the end of the second bar (fig. 6.v(c)).[31] There are two principal consequences to this reconfiguration. The first is that, seen this way, the cello effectively begins *in medias res*, a apt realisation of Messiaen's "silence harmonieux"; moreover, without a beginning the isorhythm becomes truly eternal. The second consequence is that the *color* in fact begins on B♭, not C. Obviously this correlates with the key signature, but the significance of this perhaps unclear since the existence of a

key signature at all in 'Liturgie de cristal' raises questions. Indeed, Messiaen's notation of accidentals indicates the key signature is, in practice, unnecessary. The piano *color* sheds light on this feature which has been essentially disregarded in scholarship. I believe Messiaen's notation of a key signature has a specific meaning.

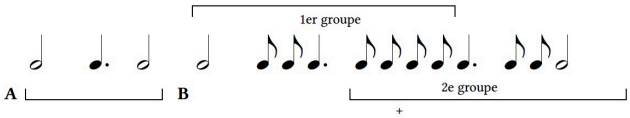


Fig. 6.v(a). Messiaen's notation of the cello *talea*.

Fig. 6.v(b). Cello *talea* as a single non-retrogradable rhythm.

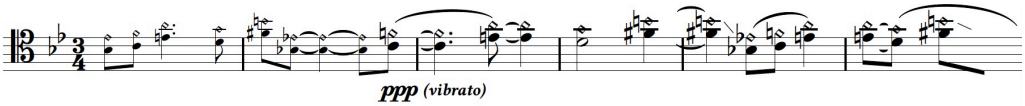


Fig. 6.v(c). "Harmonious silence" of the cello isorhythm.

In 'A Religion of Cycles', I proposed that the piano *color* is a cyclical structure, featuring an underlying F-G♭-F relation which centres on chord 15, the central chord of the *color* and also the largest chord of the *color* (I mean the greatest interval from top to bottom).[32] A complication here is that this structure actually consists of a variety of processes: some are sophisticated, others are as simple as shifting everything down a tone, as is the case with chords 14-15, for instance, where 15 is a rearrangement of this basic transposition (fig. 6.vi); it is no coincidence of voice-leading that this central chord is the most expansive of the *color* (piano *color* extracted in fig. 6.vii).

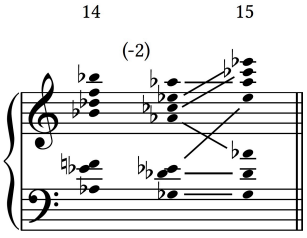


Fig. 6.vi. Rearranged transposition of chords 14-15.

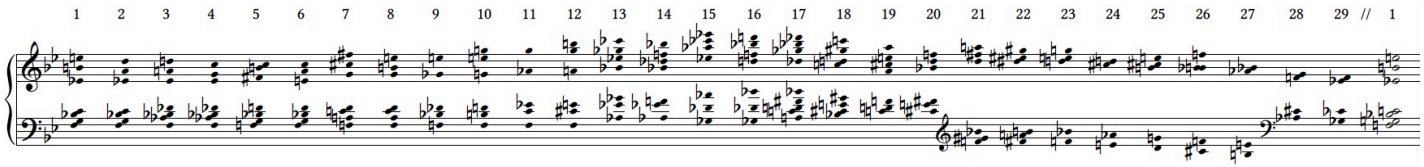


Fig. 6.vii. Piano *color*.

I wish to focus on chords 1-8, which are the most elegantly constructed of the *color*. These chords are the product of a single process, essentially the elaboration of a single chord or, rather, a set of intervals. The chord in question is what Messiaen referred to in his *Technique de mon langage musical* as the "chord on the dominant" ("accord sur dominante").[33] Messiaen's example of the chord is reproduced in figure 6.viii(a). The chord on the dominant contains all the notes of a major scale, over the dominant of which they can be rearranged into a stack of thirds—hence the name (fig. 6.viii(b)). On the same page, Messiaen illustrates an appoggiatura resolving to the chord on the dominant (reproduced fig. 6.viii(c)). This figure transposed down a tone constitutes exactly chords 1-2 of the piano *color* (fig. 6.viii(d)). In particular, notice the accent Messiaen composes on the appoggiatura: this is a dissonance, and Messiaen has expressed it as such.

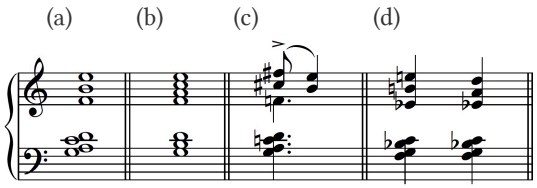


Fig. 6.viii(a-d). (a) Chord on the dominant; (b) chord on the dominant arranged into thirds; (c) appoggiatura resolving to the chord on the dominant; (d) chords 1-2 of the piano *color*.

As I demonstrated in 'A Religion of Cycles', chords 1-8 are based on a series of intervallic rotations derived from the chord on the dominant, an appropriately cyclical technique given its context. It works as follows (fig. 6.ix(a)): first, identify the internal intervals of the chord; next, building upon the same bass note, construct a chord using the same intervals but starting one along—here, 2-3-2-3-2 becomes 3-2-3-2-2, for instance. For a chord with five notes, this process can be followed five times, after which the pattern repeats itself.[34]

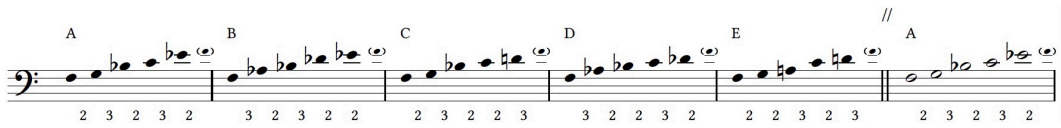


Fig. 6.ix(a). Intervallic rotation of the chord on the dominant.

We can add to these five chords appoggiaturas and resolutions in the same manner as in Messiaen's *Technique*; this creates a chain of dissonances and their resolutions (fig. 6.ix(b)). This is almost exactly chords 1-8 of the piano *color*, save for a few details, the most obvious of which is that a chord is missing (the others are octave transpositions—the C in chord 5, and the G in 7-8 are raised, as well as the appoggiaturas in 7-8 which prevent them invading the register of the chord below, and also return to the register of the beginning of the sequence in a way that could create a closed cycle). With these alterations incorporated, the process resembles precisely chords 1-8 (fig.

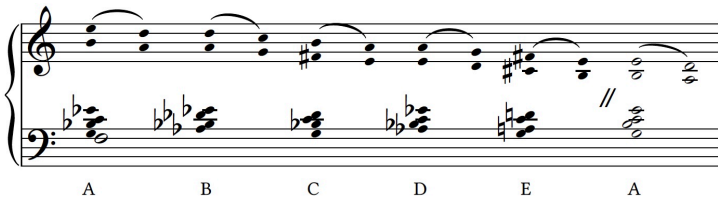


Fig. 6.ix(b). Chain of appoggiaturas over rotations of the chord on the dominant.

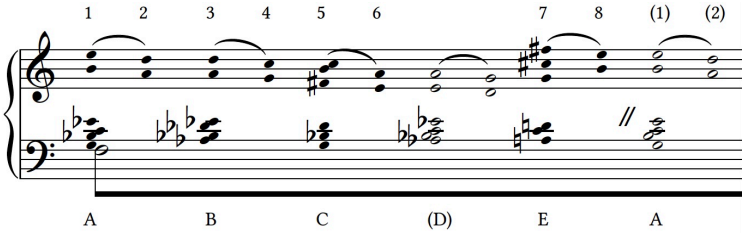


Fig. 6.ix(c). Minor adjustments create chords 1-8 of the *color*.

In 'The Caged Bird Sings', I demonstrated how this pattern of consonance and dissonance in the *color*, combined with the *talea* in isorhythm, when mapped onto a traditional time-signature of 3/4 as it is in 'Liturgie de cristal', is inevitably at odds with conventions of tactus.[35] The piano isorhythm doesn't simply subvert these conventions, it disregards them entirely: this is "the end of time" in harmonic terms. We can represent the fundamental movement of chords 1-8 like this:

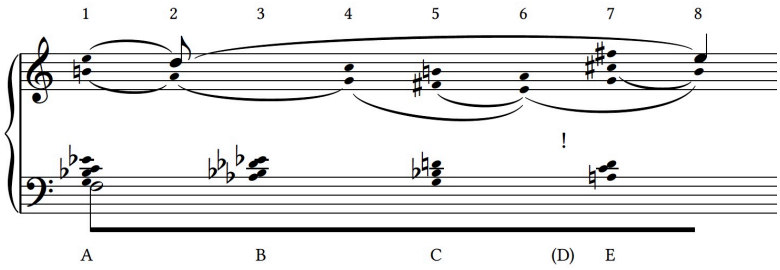


Fig. 6.ix(d). Reduction of chords 1-8.

The "missing" chord within the series of rotations puzzled me for some time; however, I now understand it is a deliberate and revealing omission. Owing to the nature of the intervals of the chord Messiaen composes, its manifest rotations can also be arranged as precise transpositions of one another (this is unusual). In other words, they are all chords on the dominant in their own right (see fig. 6.x). The omitted chord is the chord on the dominant built upon B♭, what would otherwise constitute a tonic relation to F. Chords 1-8 sound over an F pedal, but they are also part of a process of elaboration that stems from this dominant itself; the chord on B♭ risks undermining the effect of the procedure. In fact, as mentioned earlier, the piano *color* as a whole reinforces F as a structure. This is the meaning of the key signature, which intends to draw attention to this facet of the harmony. It is surely that case that Messiaen deliberately avoids structural resolution, that Messiaen suspends the harmonic fabric of 'Liturgie de cristal' in a kind of cyclic stasis. In 'A Religion of Cycles', I proposed that, in its cyclic synthesis of harmony, rhythm and religion, the movement fit the definition of a liturgy. Now, I see its crystal quality, too. The structures and processes of 'Liturgie de cristal' truly operate like light refracting through cut glass—a shifting image, seemingly distorted, suspended and untouchable, but quite real.

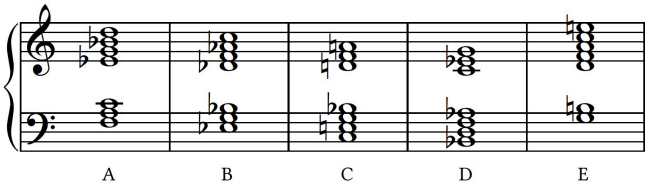


Fig. 6.x. Arrangement of the rotations into their respective chord on the dominant.

Notes to chapter 6

[1] Fig. 6.i reproduces an invitation to the premiere of 'QVATVOR DE LA FIN DU TEMPS', designed by a guard. It is the second of two existing versions. Note in particular the discrepancy in the title (instead of 'pour'), which is closer to the misinterpretation Messiaen later clarified in interview.

[2] O. Messiaen: *Quatuor pour la fin du Temps* (Paris: Durand, 1942).

[3] Messiaen relates in A. Goléa: *Rencontres avec Olivier Messiaen* (Paris: Slatkine, 1984), p. 64: 'ce quatuor était écrit pour la fin du temps, sans jeu de mots avec le temps de captivité, mais pour la fin des notions de passé et d'avenir, c'est-à-dire pour le commenecent de l'éternité, et ceci en m'appuyant sur ce magnifique texte de l'*Apocalypse*'. Translations from French my own.

[4] 'C'est moi qui devais distribuer les heures de garde, et donc j'étais souvent en contact avec Olivier.' É. Pasquier: 'Hommage à Olivier Messiaen', *Olivier Messiaen: homme de foi: Regard sur son oeuvre d'orgue* (Paris: Trinité Média Communication, 1995), p. 91.

[5] Messiaen describes 'un piano droit, très faux, dont les touches retombaient par intermittence [...] c'est sur ce piano donc que je jouai mon *Quatuor pour la fin du Temps*, devant un auditoire de cinq mille personnes'. Goléa: *Rencontres*, p. 63.

[6] É. Pasquier: Interview, 19 June 1995 in R. Rischin: *For the End of Time: The Story of the Messiaen Quartet* (Cornell University Press, 2003), p. 66. Rischin has compiled substantial anecdotal evidence.

[7] 'Jamais je n'ai été écouté avec autant d'attention et de compréhension.' Goléa: *Rencontres*, p. 63.

[8] Pasquier: Interview, 19 June 1995 in Rischin: *The Story*, p. 12.

[9] 'Je faisais le "pupitre",' Pasquier recollected, 'c'est à dire que je lui tenais la partition [...] "Jamais je n'y arriverai" disait-il. "Mais si, mais si, tu vas voir" répondait Messiaen'. Pasquier: 'Hommage', p. 91.

[10] Goléa: *Rencontres*, p. 62.

[11] Notwithstanding, Messiaen's recollections concur with the proposal that the ultimate conception of *Quatuor pour la fin du Temps* grew in Stalag VIII-A. 'Au Stalag se trouvaient avec moi un violoniste, un clarinettiste et le vionloncelliste Etienne Pasquier. J'écrivis tout de suite pour eux un petit trio sans prétention, qu'ils me jouèrent dans les lavabos [...] je gardai cette petite pièce sous le nom d'intermède et lui ajoutai progressivement les sept pièces qui l'entourent, portant ainsi à huit le nombre total des parties de mon *Quatuor pour la fin du temps*.' Messiaen refers to music that would become the fourth movement, 'Intermède'. *Idem.*

[12] See A. Pople: *Messiaen: Quatuor pour la fin du Temps* (Cambridge University Press, 1999), pp. 7-11. In spite new evidence, Pople's publication remains an invaluable resource on the quartet.

[13] For a description of those documents pertaining to *Quatuor* specifically see Y. Balmer: 'Repenser la genèse du *Quatuor pour la fin du Temps* d'Olivier Messiaen', *Créer, jouer, transmettre la musique de la Troisième République à nos jours*, eds. A. Piéjus and A. Laedrich (Abbeville: F. Paillart, 2019), pp. 159-168.

[14] 'il y en a un, possible, auquel j'ai souvent pensé moi-même, avec les temps égaux en durée de la musique classique. Dans presque toutes mes oeuvres, spécialment dans celle-là, mon premier souci a été d'éliminer les temps égaux'. Goléa: *Rencontres*, p. 65.

[15] '"Liturgie de cristal". Entre 3 et 4 heures du matin, le réveil des oiseaux : un merle ou un rossignol soliste improvise, entouré de poussières sonores, d'un halo de trilles perdus très haut dans les arbres. Transposez cela sur le plan religieux : vouz aurez le silence harmonieux du ciel.' Messiaen: *Quatuor*, p. I. This description is printed differently in Goléa: *Rencontres*, p. 71: 'Cinq heures du matin, le réveil des oiseaux : un merle soliste improvise, entouré de poussières sonores, d'un halo de trilles perdus très haut dans les arbres. Transposez cela sur le plan religieux : vous aurez le silence harmonieux du Ciel.'

[16] Isorhythms are traceable to thirteenth-century French motets, though Messiaen does not identify his technique with this name or history, instead describing isorhythm in *Quatuor* as 'un ostinato harmonico-rythmique'; in the previous sentence Messiaen refers to 'Guillaume de Machaut que je ne connaissais pas à l'époque'. *Ibid.*, p. 66.

[17] Messiaen acknowledges such capacity of isorhythm in Goléa: *Rencontres*, p. 66: 'les rythmes y sont dissociés de l'harmonie et de la mélodie'.

[18] '(comme un oiseau)'. Messiaen: *Quatuor*, p. 1.

[19] Despite this, in a parallel description of 'Liturgie de cristal' published several decades after the quartet, the blackbird is absent from the text (see n. 15). For more on Messiaen's birdsong in *Quatuor* see R. Sherlaw Johnson: 'Birdsong', *The Messiaen Companion*, ed. P. Hill (Faber and Faber, 1994), pp. 249-265.

[20] M. Angelou: *I Know Why the Caged Bird Sings* (Random House, 1969).

[21] 'au milieu de trois cent mille prisonniers, j'étais probablement le seul à ne pas l'être'. Goléa: *Rencontres*, p. 67.

[22] H. Akoka: Interview, 22 March 1995 in Rischin, *The Story*, p. 45. Akoka describes an escape attempt from Stalag VIII-A, Messiaen's refusal to join ('God has willed that I be here'), and his own subsequent recapture.

[23] 'Where Messiaen is right is where he says we're prisoners of rhythm [...] No longer having our little measure in 4/4 or 3/4 time, we were a little lost.' J. le Boulaire: Interview, 3 March 1995 in Rischin, *The Story*, p. 39.

[24] Messiaen refers to the process of playing unmeasured material (as found in the sixth movement, for instance); the isorhythms are comparable. 'Dans les morceaux non mesurés comme "Danse de la fureur, pour les sept trompettes", ils peuvent, pour s'aider, compter mentalement toutes les doubles croches, mais seulement au début de leur travail ; ce procédé pourrait alourdir fâcheusement l'exécution en public : ils devront alors conserver en eux le sentiment des valeurs, sans plus. Qu'ils ne craignent pas les nuances exagérés, les pressés, les ralentis, tout ce qui rend une interprétation vivante et sensible.' Messiaen: *Quatuor*, p. iv.

[25] Idem.

[26] 'And here I glimpse a sense of what it might be to play and listen at the end of time, where time runs out into something else, say, clear light.' P. de Bolla: *Art Matters*, 2nd ed. (First Harvard University Press, 2003), p. 83. In a chapter examining music "in time", de Bolla describes his experience listening to Gould's 1981 recording of Bach's *Goldberg Variations*; his "clear light at the end of time" is notably similar to Messiaen's "crystal liturgy for the end of time".

[27] Augustine: *Confessions*, Book XI, trans. W. Watts (Cambridge, MA: Harvard University Press, 1912), p. 239. For a philosophical context to Augustine refer to C. Pickstock: *Repetition and Identity* (Oxford University Press, 2013), for instance: 'the real present moment is the content of past and future, because the past is a present moment which has vanished, and which we look upon, and the future is a present moment yet to come. This holds true, as Augustine realized, despite the fact that every present moment skips into the past even before we can retrospectively consider it, or, alternatively, exists for us in the mode of anticipation of a future which, as future or even as present, will never arrive', p. 53.

[28] 'En homage à l'Ange de l'Apocalypse, qui lève la main vers le ciel en disant: « Il n'y aura plus de Temps ». Messiaen: dedication to *Quatuor*.

[29] Of course, this does not indicate how to end, nor would it be technically accurate since Messiaen omits the third chord of the piano *color* in bar 24, as previously mentioned.

[30] O. Messiaen: *Technique de mon langage musical*, 2 vols. (Paris: Alphonse Leduc, 1944); vol. 1, p. 18; vol. 2, p. 11.

[31] S. Crayton: 'A Religion of Cycles: 'Liturgie de cristal' from Messiaen's *Quatuor pour la fin du Temps*' (University of Cambridge, 2017), pp. 4-5.

[32] Ibid., pp. 5-11.

[33] Messiaen: *Technique*, vol. 1, p, 43; vol. 2, p. 37.

[34] Figs. 6.ix(a-d) are updated versions of figures first in 'A Religion of Cycles'.

[35] S. Crayton: 'The Caged Bird Sings' (University of Cambridge, 2018), pp. 7-8.