
Article:
Erwin, M orcid.org/0000-0002-3690-6942 (2021) Who Is Buried in Webern's Tomb? Orientations in the Reception of Serial Music from Messiaen to Stockhausen. Perspectives of New Music, 58 (2). pp. 93-128. ISSN 0031-6016

https://doi.org/10.1353/pnm.2020.0013

Who Is Buried in Webern's Tomb? Orientations in the Reception of Serial Music from Messiaen to Stockhausen

Abstract.

The category of 'post-Webern' music has recently undergone a significant critical re-evaluation, challenging both its applicability to composers associated with "citadels of the avant-garde" such as the Darmstadt summer courses and its coherency as a unifying aesthetic concept. Within this re-evaluation, the present study is a work of clarification. Through historical and structural analysis, it proposes a genealogy of Webern reception which, in its initial phase, extends from Olivier Messiaen, to Karel Goeyvaerts, Jean Barraqué, and Michel Fano, on to Karlheinz Stockhausen from 1949 to 1952, a musical practice fundamentally separate from preceding discourse on the Second Viennese School dominated by Theodor Adorno and René Leibowitz. It furthermore suggests that the assimilation of this practice into a linear (albeit dialectical) narrative of historical process resulted from, in part, the projection of Adornian formal categories onto an alien musical tradition.

Introduction: Webern's wake

In the programme for the 1959 Donaueschinger Musiktage, the Swiss composer Jacques Wildberger writes: "Tell me your attitude to Webern and I will tell you who you are."[1] By this date, this would hardly be the gauntlet toss that Wildberger might have thought: most composers of the so-called "Darmstadt School", for whom Anton Webern was purportedly the singular figure of their critical reception, had almost entirely ceased to demonstrate any sustained interest in Schoenberg's pupil. Less than a decade prior, Webern's musical practice was heralded by numerous cultural gatekeepers – festival organisers, radio producers, music critics, and the press – as the foremost exemplar of a universally valid musical language of the avant-garde, pointing the way to a generalized adoption of serial procedures to multiple individual parameters of composition. This image of Webern was bitterly contested by an established generation of composers, musicians, and philosophers, most prominently René Leibowitz and Theodor W. Adorno.[2] Their grievances were at once analytical and ideological, claiming that the newly

[1] Quoted in Walter Kolneder, *Anton Webern: An Introduction to His Works*, trans. Humphrey Searle (Berkeley: University of California, 1968), 12.

[2] The relevant polemics are, respectively, René Leibowitz, 'Sens et non-sens dans l'interprétation de la musique de Webern', in *Le compositeur et son double* (Paris: Gallimard, 1971), 273–278, and Theodor Adorno, 'Das Altern der Neuen Musik', in *Gesammelte Schriften,* ed. Rolf Tiedemann, XIV: *Dissonanzen: Einleitung in die Musiksoziologie* (Frankfurt am Main: Suhrkamp, 1973), 143–167. To a more modest extent, this position was also defended by Walter Kolneder (see op. cit., particularly 194–205), Friedrich Wildgans (*Anton Webern*, trans. Edith Temple Roberts and H. Searle (London: Calder and Boyars, 1966), particularly 13–15), Humphrey Searle (in his introductions to the translations of the two previous works), Armin Schibler (who had written and distributed a short polemic charging the Darmstadt composers with misappropriating Webern during the 1953 Darmstadt courses; for this incident see Martin Iddon, *New Music at Darmstadt: Nono, Stockhausen, Cage, and Boulez* (Cambridge: Cambridge University, 2013), 97–98; for the text itself, see Armin Schibler, 'Rundschreiben', in *Im Zenit der Moderne: Die Internationalen Ferienkurse für Neue Musik Darmstadt 1946–1966*, ed. Gianmario Borio and H. Danuser (Freiburg: Rombach, 1997), III, 66), and the loyal students of this tradition, such as Hans Werner Henze (see, among several others, *Bohemian Fifths: An Autobiography*, trans. Stewart Spencer (London: Faber & Faber, 1998), 133–134) and Wildberger.

christened Darmstadt School had fundamentally misunderstood both the musical content and the historical context of twelve tone music in general and Webern in particular. Yet despite this conflict, the Darmstadt School has been assimilated into a fundamentally Adornian avant-garde tradition, characterised by a socially hostile but historically necessary approach towards musical material, conditioned by "[t]he desperate antihumanism [*sic*] of the early atomic age".[3]

The endurance of such an ideology is evident even in scholarship that is highly critical of the narrative mythology of the period. As a result, while the creative horizons of individual composers are reassessed and the aesthetic justifications of their work are repositioned, the conceptual a priori of a common international avant-garde remains intact. More pointedly put, the Darmstadt School has disintegrated while the spectres of Webern remain. In her study of the development of the musical avant-garde in the early post-war years, Inge Kovács suggests that Pierre Boulez's generation "all worked, so to speak, towards a singular project, the new creation of an authentic contemporary language".[4] As a result, Kovács accounts for the Darmstadt generation – particularly Karel Goeyvaerts and Karlheinz Stockhausen – on Leibowitz and Adorno's terms, claiming that through Goeyvaerts's independent study he had "'discovered' the same qualities throughout Webern's music as Leibowitz and Boulez had", namely the structural use and segmentation of the tone-rows, the fixity of octave registers, and symmetrical correspondences of instrumentation and dynamics.[5] But this explanation is misleading on two accounts. First, Leibowitz's and Goeyvaerts' readings of Webern were irreconcilable, not least because, as I will demonstrate, Goeyvaerts 'discovered' structural relationships which were not in fact extant in the music itself. Secondly, what Goeyvaerts – going off his teacher Olivier Messiaen – 'discovered' in Webern was precisely what Leibowitz and Boulez did not and indeed *could* not have found, since such a discovery exceeded the ideological scope of their analysis: a totalising static form, a sort of chromatic variant of the structural devices in medieval music, and above all else a musical practice that could be placed in service of a self-effacing religious faith. As such, even if Leibowitz, Adorno, or Boulez had found the sort of symmetrical forms that Goeyvaerts thought existed in Webern, they would have assimilated them into a praxis utterly different from that of Goeyvaerts or Stockhausen.

Recent scholarship, in particular that of Martin Iddon, M.J. Grant, and Christoph von Blumröder, has repeatedly demonstrated that there was little-to-no formal consistency among the works of composers associated with the Darmstadt School. At the same time, research done by Kovács, Mark Delaere (building on Herman Sabbe), Gianmario Borio, and Pascal Decroupet has emphasized the linear development of serial techniques and aesthetics between generations of composers and theorists, leading Borio to argue for a "continuity of the moderns".[6] The following

---

[3] Richard Taruskin, *Music in the Late Twentieth Century*, The Oxford History of Western Music, vol. V (Oxford: Oxford University, 2010), 43. Taruskin's account has by now been so thoroughly discredited that my use of it as a representative example of music history runs the risk of overstating my point, which is that the conception of a historically-determined and negativist avant-garde is in no way axiomatic to the practice of many, if not all, of the Darmstadt composers.

[4] "sie alle arbeiten ja gewissermaßen an einem gemeinsamen Projekt, der Neuschöpfung einer authentischen zeitgenössischen Sprache." Kovács, 71. Kovács does characterise this as a "*soziales Faktum*" (and thus not necessarily an immanent quality of the music itself), and, taken in the broadest sense, this observation could be applied to almost any "group" of composers from Ars Antiqua onwards. This is exactly what is at issue, however: the ideological foundation of such a seemingly obvious historical statement already determines how the music in question is understood (in this case, historically necessary and logical).

[5] "und so ist es kein Wunder, daß er an der Musik Weberns (inbesondere den Klaviervariationen op. 27) durchaus dieselben Eigenarten »entdeckte« wie Leibowitz und Boulez [...]" Kovács, 20.

[6] Gianmario Borio, 'Kontinuität der Moderne?', in *Im Zenit der Moderne*, I, 141–284.

article may be effectively seen as a corollary to this research, using its respective conclusions – first, the mutually differentiated practices of the Darmstadt composers; second, the historical contingency of serial techniques and their evolution – as the foundations for an examination into an alternative reading of Webern, mutually exclusive from that of Adorno and Leibowitz, that accounts, I propose, for significant differences in style and substance in the compositions of the Darmstadt generation.

I. Olivier Messiaen

While the significance of Olivier Messiaen's teaching at the Conservatoire National on the development of twentieth-century music and aesthetics has been widely remarked upon even in non-scholarly, general interest, and textbook sources, the content of his instruction has attracted somewhat less notice. It was not until 1998 that Mark Delaere assembled a thorough reconstruction and examination of Messiaen's syllabi.[7] Delaere draws the conclusion that much of Messiaen's curriculum was remarkably constant over his teaching career, with Messiaen even repeating certain analyses "unaltered over a period of half a century,"[8] meaning that what the first students of Messiaen's Cours d'esthétique analysed in 1948 was also largely the same set of music encountered by students attending Messiaen's classes throughout the post-war years.

Messiaen operated largely peripherally, if not independently, of the Conservatoire National. Prior to the conception of the Cours d'esthétique in October 1947, Messiaen's official capacity at the Conservatoire was merely that of a lecturer in harmony.[9] There is a furthermore a considerable ambiguity about what Messiaen taught where: as Dominique Jameaux points out, Messiaen's harmony classes were, starting in 1943, supplemented by informal analysis courses at the apartment of Egyptologist Guy-Bernard Delapierre.[10] It is difficult, then, to delineate what Messiaen taught as the "official" Conservatoire curriculum and what he reserved for these informal lessons. Composition lessons were even further removed from Messiaen's official duties: he was only awarded a professorship in composition at the Conservatoire in 1966.[11]

The "official" position notwithstanding, the bulk of Messiaen's teaching, both formal and informal, was centred on analysis, and a more or less complete list of the repertoire which was under discussion has been assembled by Delaere, primarily through Goeyvaerts' annotations on scores.[12] In addition to already relatively canonical works (Mozart's late symphonies, Beethoven's sonatas, and Bach's B minor Mass (1749) and St Matthew Passion (1727), among others), Messiaen gave analyses of many of his own pieces, Debussy's *La Mer* (1903–1905) and *Pellás et Mélisande* (1893–1902), Ravel's *Gaspard de la nuit* (1908), Machaut's *Messe de Notre-Dame* (ca. 1360), and, most notably, Stravinsky's *Le Sacre du printemps* (1911–1913).[13]

For Messiaen, *Le Sacre* was an opportunity to showcase many of his own compositional preoccupations. Delaere singles out in particular his description of 1) the influence of rhythm on subjective time-perception, especially in the form of Messiaen's "law of attack-duration relations"

---

[7] See Mark Delaere, 'Olivier Messiaen's Analysis Seminar and the Development of Post-War Serial Music', trans. Richard Evans, *Music Analysis*, 21/i (2002 [1998]), 35–51.
[8] Ibid, 39.
[9] Delaere, 'Messiaen's Analysis Seminar', 35–36.
[10] Dominique Jameaux, *Pierre Boulez*, trans. Susan Bradshaw (London: Faber and Faber, 1991 [1984]), 11.
[11] Delaere, 'Messiaen's Analysis Seminar', 36.
[12] Ibid, 37.
[13] Ibid, 37–38.

("loi des rapports attaque-durée"), 2) "rhythmic characters" ("personnages rythmiques", and 3) non-retrogradable rhythms and modes of limited transposition ("rhythmes non rétrogradables" and "modes à transpositions limitées", respectively).[14] All of these facets are described in detail in Messiaen's *Technique de mon langage musical*, published in 1944. Crucially, Messiaen here foregrounds his conception of musical syntax as a medium for conveying a "charm of impossibilities", most significantly through "the theology and the truths of our Catholic faith".[15]

The "loi des rapports attaque-durée" states: "A short sound followed by a silence is longer for our sense of interior time – given equality of clock time – than a sustained sound held for a duration equal to that of the preceding sound and silence."[16] This is roughly analogous to Messiaen's description of "monnayage", wherein a "large bill" (that is, a long rhythmic duration) is cashed in for "small change" (multiple smaller rhythmic values adding up to the same duration).[17] Such a conception of rhythmic divisibility is directly related to prolation in medieval notation, but, as Delaere observes, Messiaen additionally positions rests as "negative value" included in the measurement of a larger rhythmic unit, rather than simply a caesura.[18] The most immediate compositional results of this hermeneutic paradigm shift can be found in Messiaen's *Mode de valeurs et de intensités* (1949) and, perhaps more extensively, in the middle movements of Goeyvaerts' Sonata for Two Pianos.

Rhythmic characters ("personnages rythmiques"; "character" here used in the concrete, literal sense) refer to rhythmic cells which develop over time, gradually being augmented or diminished.[19] As such, Delaere explains, these rhythmic "characters" behave like figures in a theatre: one takes centre stage (being augmented) while another retreats (being diminished) while a third looks on (being repeated unchanged).[20] This is the conceptual framework that Messiaen uses to arrive at complex, interrelated rhythmic processes. However, he stipulates that such processes are only effective within a particular perceptive window, since "excessive augmentations or diminutions would have drawn us into some very long or very short values" that are "hardly appreciable to hearing".[21]

Non-retrogradable rhythms are, in their simplest form, rhythmic units which are symmetrically palindromic. However, Messiaen expands this principle to include relationships between rhythmic units: "all rhythms divisible into two groups, one of which is the retrograde of the other, with a *central common value*, are non-retrogradable."[22] Complementarily, modes of limited transposition refer to a series of seven modes devised by Messiaen which "realize in the vertical direction (transposition) what non-retrogradable rhythms realize in the horizontal direction (retrogradations)."[23] Paul Griffiths draws a connection between these and Messiaen's "charm of impossibilities", suggesting that such techniques "might appear as images of the reversibility of

---

[14] Ibid, 38–39.
[15] Olivier Messiaen, *The Technique of My Musical Language,* trans. John Satterfield (Paris: Alphonse Leduc, 1956 [1944]), I, 13.
[16] Quoted in Delaere, 'Messiaen's Analysis Seminar', 38; translation of Messiaen's analysis of *Le Sacre* within Delaere by Philip Weller.
[17] Ibid. See also Olivier Messiaen, *Musique et couleur: noveaux entreteins avec Claude Samuel* (Paris: Belfond, 1986), 135–146.
[18] Delaere, 'Messiaen's Analysis Seminar', 39.
[19] Ibid.
[20] Ibid.
[21] Messiaen, I, 19.
[22] Ibid, 20 (emphasis Messiaen's).
[23] Ibid, 21.

time."[24] Precisely this conception of a non-teleological experience of time, one arrived at through static (i.e., non-dynamic and non-thematic) forms, was central to the aesthetic thought of Goeyvaerts and Stockhausen after 1951. But the conclusion that Delaere draws, that Messiaen's "compositional principle of symmetry produces a tautness which the young generation specifically associated with Webern's use of twelve-note technique", [25] requires qualification, since such an interpretation of Webern was in fact contrary to the prevailing discourse in the early post-war years.

In comparison with the reading of dodecaphony established by Adorno and Leibowitz in the wake of World War II, Messiaen's relationship to twelve-note technique appears highly idiosyncratic, as indicated in his treatment of the Second Viennese School in his analysis seminar. The pieces analysed in Messiaen's course were Berg's Lyric Suite (1925–1926), Schoenberg's *Pierrot Lunaire* (1917) and *Serenade* (1921–1923), and Webern's Drei Lieder op. 18 (1925). Of these, Goeyvaerts only mentions Messiaen's analysis of the Lyric Suite in his autobiography, deeming it "a superficial treatment", and claiming that Messiaen "displayed a certain stand-offish opinion of Schoenberg, Berg and Webern."[26] Delaere subjects this viewpoint to further scrutiny, extrapolating what specifically Messiaen's analysis of the Lyric Suite might have entailed through Goeyvaerts' annotations on his copy of the core. While Delaere notes there is "some superficiality" in Messiaen's analysis, such superficiality is confined precisely to those facets of the score which would have been emphasized in a dodecaphonic (or, more precisely, thematic; read: Leibowitzian) analysis.[27] These include Messiaen's neglect of row counting, row composition, usage of "canons and stretti", and a "discussion of the thematic aspect and form" which goes "hardly any further than Erwin Stein's foreword to the score."[28] Conversely, Delaere observes that Messiaen takes "great precision" in his analyses of structural aspects largely neglected by the dodecaphonic/thematic reading of the piece predominant in the early post-war years, most notably in his investigation of rhythmic forms and row rotation, as well as his identification of a "crescendo de densités" in the third movement.[29] These structural aspects are, of course, remarkably similar to those that Messiaen had been deploying in his own compositions for decades. Messiaen's analysis of Schoenberg's *Serenade*, which Delaere similarly reconstructs from Goeyvaerts' annotated score, further confirms this point. It would seem, then, that Messiaen's treatment of the Second Viennese School was, in essence, functionally akin to his treatment of Stravinsky's *Sacre* – or, for that matter, his treatment of Mozart – in that it primarily (if not exclusively) drew attention to the structural aspects of the piece in question which had direct parallels with his own compositional practice.[30]

Messiaen's evident ambivalence towards the Second Viennese School – or, more precisely, the dodecaphonic/thematic/Leibowitzian reading of it – has been overlooked in historical research,

---

[24] Paul Griffiths, *Olivier Messiaen and the Music of Time* (London: Faber & Faber, 1985), 37.
[25] Delaere, 'Messiaen's Analysis Seminar', 39.
[26] Goeyvaerts, 'Paris – Darmstadt', 42.
[27] Delaere, 'Messiaen's Analysis Seminar', 45.
[28] Ibid.
[29] Ibid. Delaere's further contention that such an identification "anticipates the integration of the parameter of density into serial practice" is a tantalising suggestion, although the generality of "density" as a compositional parameter, meaning different things to different composers (as do, admittedly, pitch, rhythm and timbre), as well as its widely differentiated deployment (compare Boulez's *Le Marteau sans maître* (1954) with *Gruppen* (1955–1957)) slightly tempers the ambition of such an assertion.
[30] For Messiaen's analysis of Mozart (which notes "melodic formulae found in Hindu music and birdsong," inter alia), as well as its influence on Stockhausen, see Delaere, 41–42.

which tends to assimilate Messiaen, like Leibowitz or Adorno, as a knowledgeable disciple of Webern. Yet such an explanation immediately risks self-contradiction when it asserts that Messiaen had "learned" from Webern certain techniques that he was already using as early as 1932.[31] This in turn leads to formulations like the one Paul Griffiths gives in explanation of the first movement of the *Livre d'orgue* (1951): "One of the most important lessons Messiaen had taken from serialism, especially from Webern's serialism, was a cherishing of each note as a separate event: this was something he was already handing on to Boulez and Stockhausen, but neither of them wrote anything so rigorously 'pointillist' as this movement."[32] Rigour notwithstanding, it is crucial to note that the (potentially) "pointillist" features Griffiths identifies in this piece could only derive from the musical surface, rather than any particular compositional process. The published score clearly identifies the compositional material as "3 rythmes hindous" – which are named and identified as they appear – combined with "personnages rythmiques" undergoing either augmentation or diminution.[33] Of course, "Hindu rhythms" and "personnages rythmiques" had been central to Messiaen's compositional technique since the early 1930s, at least a decade before he would have had any knowledge of "serialism" – Webernian or otherwise. Precisely because Messiaen's reception of Webern was so idiosyncratic, the "lessons" he learned were, at the compositional level, merely a confirmation of musical techniques he had already been using for two decades.[34] The figure of Messiaen emplotted by Anglophone musicology – at once an expert and an ingénue, a serialist and an expressionist, a vangaurdist and a moderate, far more radical and rigorous than his students yet far more open and heterodox – is of necessity a rather chimerical representation, since it has been crafted *post hoc* to adhere to a grand musicological narrative of the post-war avant-garde – the patrilineal descent of New Music described by Leibowitz and Adorno – rather than the peculiar ideological contingencies – themselves no less grand or teleological – of Messiaen's creative existence.

To get a better sense of these contingencies, it is instrumental to examine the composition by Messiaen put forward – often to the exclusion of all others – as a seminal influence on the younger generation of post-war composers: 'Mode de valeurs et d'intensités', the second of the *Quatre études de rythme* (1949–1950) for piano.[35] Despite the esotericism frequently attributed the piece, Messiaen has been quite transparent about its creation: the published edition of the score is prefaced by a note by the composer systematically outlining his compositional process.[36] The note identifies a series of twelve articulations, seven dynamic values, three sets of twelve durations (which, due to overlap between the sets, result in twenty-four unique durations), and three sets of twelve pitches. Subsequently Messiaen indicates how these are combined to form the "mode", which comprises three divisions sounding simultaneously in the high, middle, and lower register of the keyboard. Within this division, the shorter durations are reserved for the high register, the longer durations for the low register, and the intermediary durations in the middle register, a division which, as Richard Toop observes, takes advantage of the natural resonant properties of the instrument.[37]

---

[31] Cf. the symmetrical, palindromic macrostructure of *Apparition de l'église éternelle* (1932).
[32] Griffiths, *Messiaen*, 159.
[33] AL21046 (Paris: Alphonse Leduc, 1953).
[34] The remainder of Griffiths's commentary is at best baseless and at worst wilfully obfuscatory, not least since Stockhausen would not arrive in Paris until 1952.
[35] *Mode* is dated 'Darmstadt 1949', but, according to Griffiths, it was actually realized only the following winter in Paris (Griffiths, *Messiaen*, 151).
[36] DF15302 (Paris: Durand, 1950). In later editions, Messiaen's note is given in English, but with identical content.
[37] Toop, 146.

Since Messiaen himself has provided an explanation of the processes at work in the piece (and since the processes described are indeed carried out in the composition), subsequent analyses – those that do more than simply repeat Messiaen's explanatory note, as is the case in several textbooks – tend to direct their energies towards contextualising the piece stylistically, both on its own individual terms, as part of Messiaen's compositional output, and as a foundational work of the post-1945 avant-garde. Toop's analysis is exemplary in this regard. Using Messiaen's prefatory note as a starting point (the example of the three modes is directly reproduced), Toop observes that there are rich precedents for such an organisation both in Messiaen's own output and those of historical composers he greatly admired. Indeed, Toop's contention that Messiaen "could scarcely fail to have been familiar with the magic numbers of Machaut's *Notre Dame* Kyrie" is borne out by the fact that this exact piece was a perennial subject in his analysis seminar.[38] From this Toop deduces that the 3 x 12 pitches of Messiaen's "triplum" should be seen as "trinity symbols", and furthermore, "though less convincingly", Messiaen's use of 3 x 8 durations, 3 x 4 modes of attack, and 7 attacks are also "not without symbolic connotations".[39] Toop further draws attention to the stylistic features of Messiaen's mode common with his other work, namely the "'affective' cadential close with a falling tritone", "rhythmic cell organisation" (roughly equivalent to the function of "personnages rythmiques" described above), and the chromatic scale of durations, which was previously deployed in *Cantéyodjayâ* (1949) and figured in several of Messiaen's later compositions.[40] Toop goes so far as to position the "pitch organisation" of the mode as the sole "major innovation in Messiaen's work", since "rhythmic cell organisation is a constant characteristic of the works preceding the *Quatre Etudes* (cf. *Cantéodjaya* [*sic*])".[41] But even this pitch organisation is far from thoroughly systematic, and Toop ultimately concludes that, as they appear, "much of the note order is arrived at on the dual basis of taste and expediency."[42]

Toop additionally stipulates that "*Mode de valeurs* is in no sense a serial composition, even though it falls within the category of 'durchgeordnete Musik.'"[43] This distinction – between serialism and "through-ordered music" – is a crucial one for Toop's historical analysis, and indeed provides a very neat framing for his investigation, which starts with Messiaen's *Mode* and ends with Boulez's *Structures I*. Since the "pitch material of Messiaen's study is not a series, but a mode of 36 notes", the fact that Boulez's later piece "*converts* it into a series by bringing all the pitches within an octave" serves as an ultimate synthesis of 'durchgeordnete Musik' – under which Toop also classifies Goeyvaerts and Michel Fano's respective Sonatas and Stockhausen's *Kreuzspiel* (1951) – and serialism. However, in positioning Messiaen's 'Mode', alongside the works of Goeyvaerts, Stockhausen, and Fano, as an embryonic precursor to the generalised form of serialism present in Boulez's *Structures*, Toop is applying a historical logic that is quite foreign to Messiaen's understanding of his own aesthetic process. In essence, Toop emplots the works of Messiaen, Goeyvaerts, Stockhausen, and Fano according to the ideological precepts of Leibowitz and Adorno: as structural innovations proceeding linearly from the historically necessary development of musical material.

[38] Ibid, 143.
[39] Ibid.
[40] Ibid, 145–147.
[41] Ibid, 146.
[42] Ibid, 152.
[43] Ibid, 144.

II. Karel Goeyvaerts, Jean Barraqué/Michel Fano

While not himself a student at the Conservatoire, Jean Barraqué enrolled as an *auditeur* in Messiaen's Cours d'esthétique in the autumn of 1948, which is most likely where he met Karel Goeyvaerts, a student from Antwerp four years his senior.[44] By the summer of 1950, they had established a romantic relationship.[45] Neither Barraqué nor Goeyvaerts ever studied, or attempted to study, with Leibowitz, although both were familiar at least in passing with his publications.[46] Conversely, both shared their teacher's devout Catholicism and interest in medieval formal procedures; many of their earliest compositions set sacred texts.[47] It may be expected, then, that Messiaen's approach towards composition, and its technical, conceptual, and ideological foundations, would have received a sympathetic audience.

Perhaps resulting in part from their intimacy, Goeyvaerts and Barraqué's compositional developments during this period are strikingly parallel. During their early relationship, both composers pursued independent studies of Webern's music, copying numerous scores by hand.[48] From 15–23 May 1949, Barraqué composed a Sonata for solo violin which uses a twelve-tone row combined with an isorhythmic talea.[49] He would develop both these techniques in over a dozen compositions – all either unfinished or withdrawn, with the exception of the retroactively reworked Sonata for Piano (1950-1952) and *Séquence* (1950–1955) – that followed rapidly between 1949 and 1951.[50] At the same time, Goeyvaerts was himself experiencing a fundamental creative transformation. In his autobiography, he recalls that during this period, "[m]y thinking matured and ideas which had long been in my head suddenly gelled. It was like a jiggsaw [*sic*] puzzle when one is left with just a few remaining pieces: they find their own way to the right place."[51] This culminated in the composition of the Sonata for Two Pianos (1950–1951), which Goeyvaerts would subsequently re-title *Opus 1* (and later, even more austerely, *Nummer 1*) to signify a new beginning of his creative production.[52]

However, the Webern that influenced these works was radically different from the figure proposed by Leibowitz and Adorno. After hearing the world premiere of Webern's Second Cantata (1941–1943) at the 1950 ISCM World Music Days in Brussels, a deeply moved Goeyvaerts wrote to Barraqué describing "a music of crystal purity which makes all human

---

[44] Paul Griffiths, *The Sea on Fire: Jean Barraqué* (Rochester: University of Rochester, 2003), 19–20.

[45] The surviving evidence of Goeyvaerts and Barraqué's relationship are contained in the letters sent by Goeyvaerts to Barraqué which are held by the Association Jean Barraqué. Since both men remained in Paris during their early relationship, the first letters already suggest a substantial romantic attachment. Portions of this correspondence have been published in *Selbstlöse Musik: Texte • Briefe • Gespräche*, ed. Mark Delaere (Cologne: MusikTexte, 2010), 274–293.

[46] According to Laurent Feneyrou, Barraqué most likely read *Schoenberg et son école* in 1949; a newspaper advertisement for the book from this date exists within Barraqué's papers (conversation with the author, 18.01.2018). There are no Leibowitz writings contained within Goeyvaerts' estate (The Artistic Legacy of Karel Goeyvaerts, KU Leuven; henceforth ALKG).

[47] See the catalogue of Barraqué's "juvenilia" in Griffiths, *Barraqué*, 209–210.

[48] Feneyrou suggests that these scores were most likely provided by Boulez or Messiaen (conversation with the author, 18.01.2018).

[49] Published posthumously in an edition by Laurent Feneyrou. See BA 9374 (Basel: Bärenreiter, 2009).

[50] Several of these previously unpublished works are available or being prepared for publication by Laurent Feneyrou for Bärenreiter.

[51] Karel Goeyvaerts, 'Paris – Darmstadt 1947–1956: Excerpt from the Autobiographical Portrait', trans. Mark Delaere, *Revue belge de Musicologie / Belgisch Tijdschrift voor Muziekwetenschap*, 48 (1994), 43.

[52] See Herman Sabbe, 'Karel Goeyvaerts: More Than a Footnote to the Book of Music', in *Rewriting Recent Music History: The Development of Early Serialism 1947–1957*, ed. Mark Delaere (Leuven, Peeters, 2011), 67.

sentiments and emotions appear ridiculous; hieratic calm that allows the conception, perfectly balanced, of a new, higher sensibility… But all of this is just words."[53] On this surface, this might sound rather to the tune of what one might expect of a (future) Darmstadt composer, and indeed, "crystal purity" soon became solidly attached to the Webern brand – Stravinsky's oft-quoted opening epigram, dated June 1955, for the Webern issue of *die Reihe* pays homage to a composer who "inexorably kept on cutting out his diamonds, his dazzling diamonds, the mines of which he had such a perfect knowledge."[54] Yet it is important to note that, in 1950, Goeyvaerts would have been one of the first to find such a "crystal purity" in Webern's music. Certainly it would be difficult to find such ascetic calm or purity in Webern's own writing and lectures, which typically stress above all the dynamism present both in the unity of his musical conception and the aesthetic trajectory which it resulted from; he describes moving beyond tonality as "a fierce struggle; inhibitions of the must frightful kind had to be overcome, the panic fear, 'Is that possible, then?'"[55] Indeed, he even draws parallels between the "cancrizans" of his Symphony, op. 21 – often depicted as the high point of Webern's compositional austerity in textbook accounts[56] – and the "alliteration and assonance" of Shakespeare and Karl Kraus.[57] Such a dynamism, of course, squares nicely with Leibowitz's interpretation, which argues that "[t]he work of Webern, from its very beginnings, is directed towards the conquest of a language dominated by the idea of perpetual variation."[58] On a fundamental level, Goeyvaerts' conception of Webernian crystal purity at this stage could not have come from – and in fact was inimical to – a previous knowledge of Webern's music or ideas, but rather derived from a personal, idiosyncratic reading informed by theological and formal considerations.

Coincident with their idiomatic interpretation of Webern, Barraqué and Goeyvaerts were both preoccupied with symmetrical form in their compositions during this period. Goeyvaerts describes the second movement of his Second Violin Concerto (1950) "as a sort of irrational variation of the first", which itself "constructed following a strictly rational pattern,";[59] in the subsequent Sonata, the outer two movements are an "irrational" commentary on the strictly organised central movements.[60] Barraqué's preface to his Sonata for piano (1950–1952) likewise describes a formal opposition of "a 'free' style (start of the work, for example) to a 'rigorous' style."[61] Taken by itself, this may seem like little more than a shared interest in the juxtapositions of musical material characteristic in sonata form. But Goeyvaerts and Barraqué's understanding of symmetry during this period is essentially Messiaenic rather than classical, as an expression of

---

[53] '[…] une musique pure comme le cristal qui fait paraître ridicules tous les sentiments et émotions humaines; calme hiératique qui permet de monter, parfaitement équilibré, á un niveau supérieur de sensibilité… Mais tout cela ne sont que des mots.' Goeyvaerts to Barraqué, 25 June 1950. See *Selbstlöse Musik*, 274–277.

[54] See *die Reihe*, II (1958), vii. In fact, such a mineralogical interpretation of Webern still retains broad currency within musical culture: a notice of an upcoming performance of Webern's complete works in the 11 September 2017 issue of *The New Yorker* advertises "The Gemlike Music of Webern: The complete crystalline works of the Austrian composer, at Trinity Church Wall Street". See Russell Platt, "The Gemlike Music of Webern", https://www.newyorker.com/magazine/2017/09/11/the-gemlike-music-of-webern (accessed 19.09.2017).

[55] Anton Webern, *The Path to the New Music*, trans. Leo Black (Bryn Mawr, PA: Theodore Presser, 1963), 44.

[56] See David Ewen's interpretation, describing "ideas reduced to fragments, ideas so pulverized they have become atoms." David Ewen, *Modern Music: A History and Appreciation– from Wagner to the Avant-Garde* (Philidelphia: Chilton, 1962), 277.

[57] Webern, 56.

[58] Leibowitz, 209.

[59] Goeyvaerts, 43.

[60] Toop, 153.

[61] Quoted in Griffiths, *Barraqué*, 39.

spiritual – specifically Roman Catholic – perfection through musical structure. Barraqué's withdrawn ballet *Melos* (1950–1951)[62] contains several movements clearly indebted to Messiaen's practice, most notably 'Entrée de la Peinture', which is constructed through multiple isorhythmic figures which pivot and reverse at the centre of the piece, resulting in a perfectly symmetric and strikingly elaborate construction (see figure 1). Heribert Heinrich has furthermore examined the technical borrowings from Messiaen in Barraqué's *Trois Melodies* (1950; later incorporated into *Séquence*), as well as identifying "symmetrical forms" which, Heinrich suggests, Barraqué had found in Webern.[63]

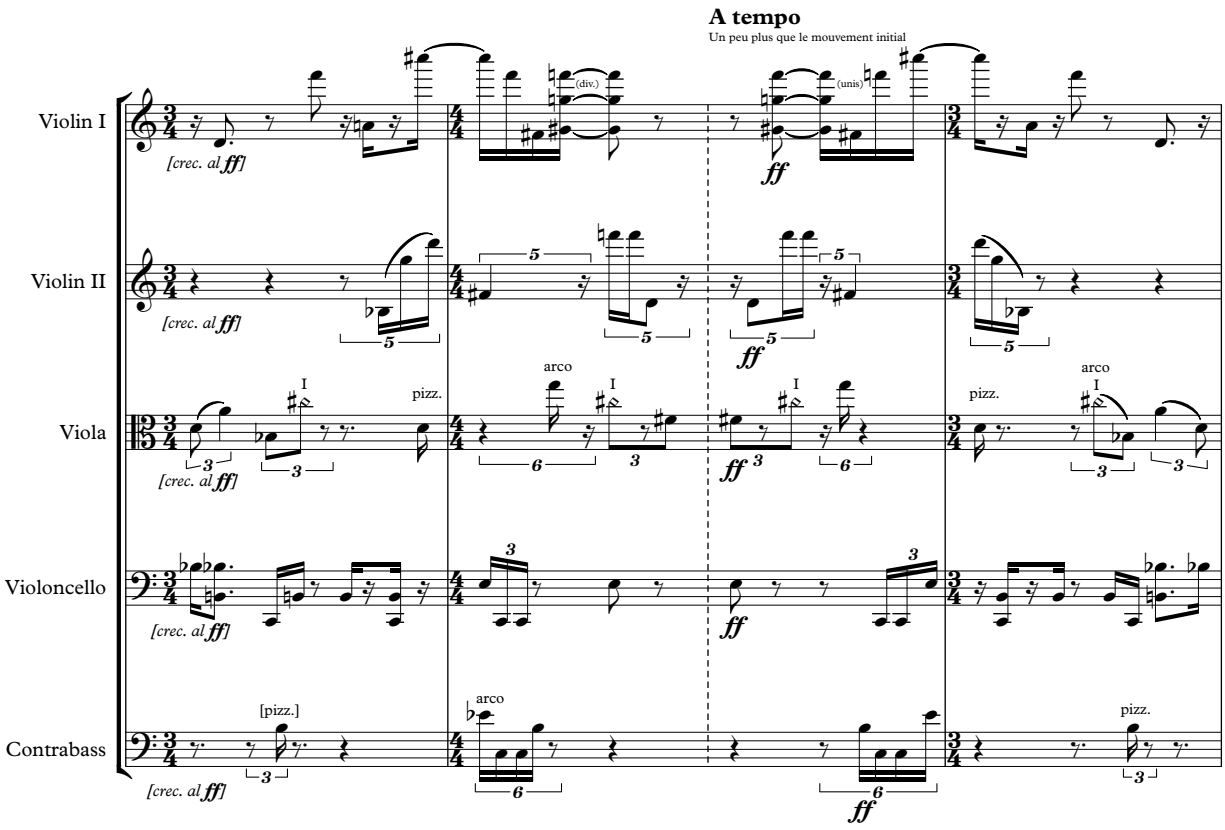

Fig. 1: Jean Barraqué, Melos*, third movement, 'Entrée de la Peinture', mm. 26–28. Measure 27, in quadruple time, is the symmetrical pivot of the entire movement (the dotted lines throughout the movement in the published score indicate section breaks; here they also indicate the point of mirror-symmetrical retrogradation).*

For Goeyvaerts, these forms and their attendant ideology were even more fundamental to his musical practice. Herman Sabbe notes that Goeyvaerts' mature compositions *in toto* are

[62] Published posthumously in an edition by Laurent Feneyrou and Aurélien Maestracci. See BA 11 119 (Basel: Bärenreiter, 2017).

[63] Heribert Heinrich, 'Serielle Konstruktion und "Serielle Ästhetik": Zu Jean Barraqués Nietzsche-Kantate *Séquence*', in *Rewriting Recent Music History: The Development of Early Serialism 1947–1957*, ed. Mark Delaere (Leuven: Peeters, 2011), 139–160. Heinrich's contention that Barraqué's understanding of twelve-tone technique at this time was largely in accord with Leibowitz (Heinrich, 141) is not, to my mind, clearly evident from the music; certainly the contemporary *Melos* displays far more technical and formal processes familiar from Messiaen and Goeyvaerts – and, crucially, their interpretation of Webern and Machaut – than those of Leibowitz's Schoenberg.

characterized by "a multiple symmetric development, i.e. an evolution to and from a turning point which is at the same time the centre of the composition."[64] The deployment of such an "evolution" in the Sonata is particularly dazzling. Notwithstanding the "irrational/rational" mirroring at the level of the global structure, the central two movements are governed by three separate but interlocking symmetrical processes. First of all, the pitch range is condensed from the opening range of 5 octaves into a space of 2 ½ octaves (in the second movement), before expanding out once more to a range of 5 octaves (in the third movement). Concomitantly with this process, the musical material is exchanged between the two pianos, so that in the third movement Piano 2 plays a retrograde of what Piano 1 played in the second movement while Piano 1 plays a retrograde of Piano 2, concluding with the opening notes of the second movement in opposite pianos. The results of these two processes are shown in figure 2.

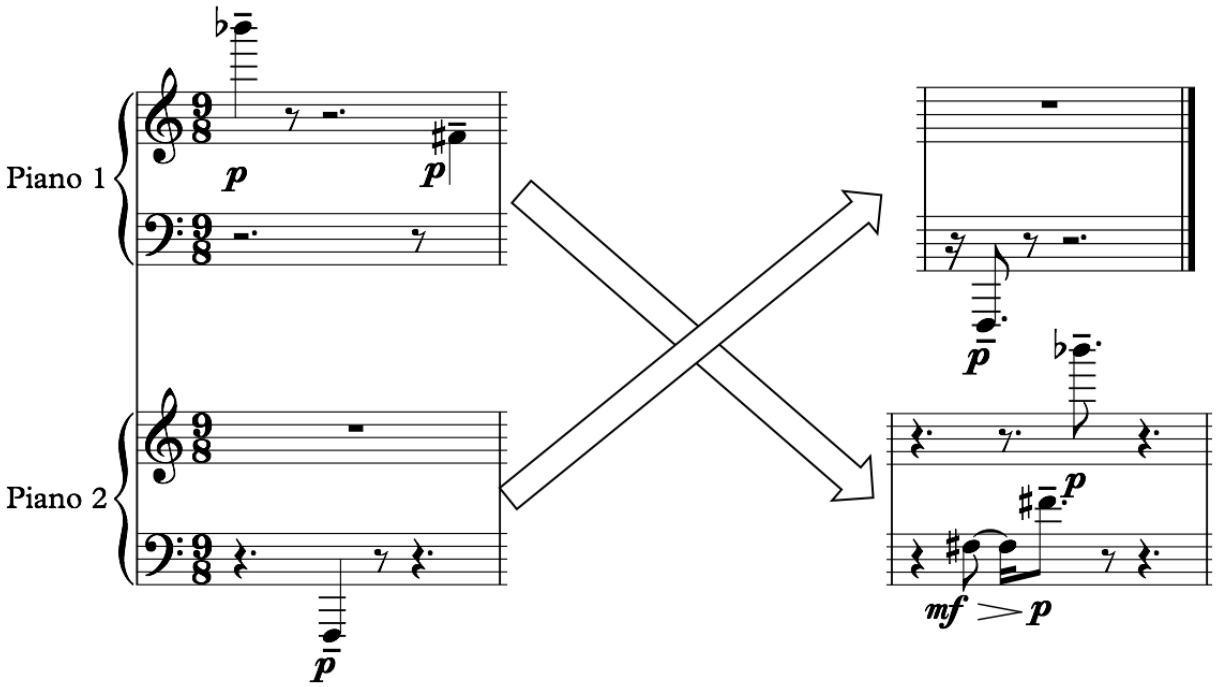

Fig. 2: Karel Goeyvaerts, Sonata for Two Pianos, comparison of beginning of second movement to ending of third movement demonstrating results of mirror-canonic cross

Third, the pitch material itself (as in the individual pitches rather than the register) is derived from two overlapping heptachords (shown in figure 3) with the overlapping notes, the tritone A–E flat (the latter enharmonically spelled as D sharp in the second heptachord), acting as "pivot" tones. These two pivots retain their register while the other pitches are displaced, eventually becoming the outer limits of the harmonic field (see figure 4).[65] As with the octave displacement, the

[64] Herman Sabbe, 'Goeyvaerts and the Beginnings of "Punctual" Serialism and Electronic Music', *Revue belge de Musicologie / Belgisch Tijdschrift voor Muziekwetenschap*, 48 (1994), 80. This need not be realised as an actual point (viz. *punctum*), and often not even an identifiable moment. This "turning point" is the location and/or moment wherein the process(es) being deployed in the composition either reverse, turn back on themselves, or transform. Since such processes can be multidirectional, it is perhaps more accurate to speak not of a "turning point" but a fulcrum or pivot.

[65] The idea of a timeless and motionless music, familiar from Messiaen, is further present in the strict alteration of these two heptachords and, furthermore, their equal presentation between the two pianos: Piano 1 always plays

presentation of these heptachords is reversed in the third movement, ultimately concluding with the same material which opened the second movement.

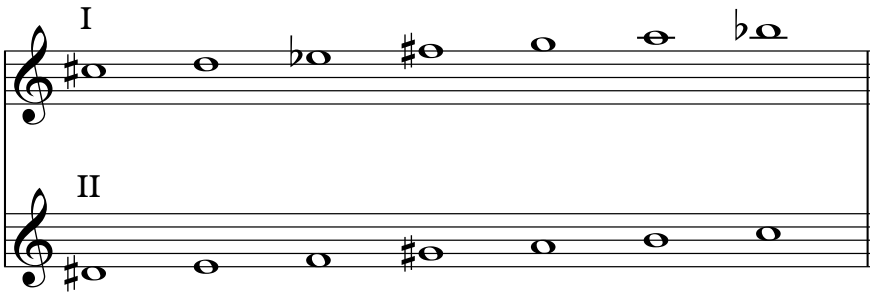

Fig. 3: Karel Goeyvaerts, Sonata for Two Pianos, heptachords in central movements

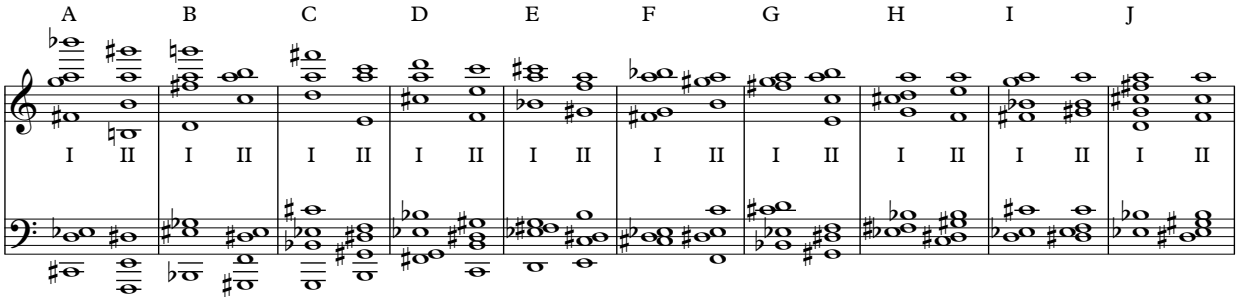

Fig. 4: Karel Goeyvaerts, Sonata for Two Pianos, presentation scheme of heptachords, second movement (third movement presentation is a retrograde of this scheme)

There is still a further level of organisation, one which establishes the Sonata as – to use Iddon's phrase – "point music *par excellence*".[66] Goeyvaerts' term for this procedure is "synthetic number": every pitch, in addition to a chromatic series of seven durations, four dynamics, and two separate types of articulation, is accorded a separate number. These parameters are then combined so that the resultant sound event will add up to a value of 7 – taking the first note of the second movement as a demonstration, a B flat (= A sharp) has a value of 1, a dotted half note tied with a dotted quarter has a value of 3, a piano dynamic is 2, tenuto is 1, which, in turn, adds up to 7.[67] This is, of course, precisely the Catholic numerology that Toop identifies in Messiaen's *Mode*, generalised to govern the separated parameters of each individual sound event.

None of these procedures would appear to be obvious borrowings from Webern's music. Certainly they have little in common with twelve-tone technique as understood by Leibowitz and Adorno. An annotated study score of Webern's Symphony op. 21 survives among Goeyvaerts' papers and gives a helpful indication on what, precisely, Goeyvaerts had seen in Webern that earlier analysts had not.[68] This particular edition of the Symphony was only published in 1955, but Goeyvaerts' annotations – not least due to their concision and relative scarcity – have almost

heptachord I then II, while Piano 2 plays II then I, so that the totality of the pitch material is simultaneously present in each iteration.

[66] Iddon, 54.

[67] As Iddon points out, Goeyvaerts is somewhat inconsistent in his reckoning of these values. For the category of duration, he occasionally counts the value of the succeeding rest into the duration of the note (as in the example given) and occasionally does not. See Iddon, 54–55.

[68] ALKG 151.

certainly been adapted from earlier analyses he had made from handwritten copies of the score by himself or Barraqué.[69] While the remainder of the second movement is entirely without marking, the first eleven bars contain the most detailed annotation of the entire score. Goeyvaerts not only notes the melodic symmetry of the twelve-note theme given in the clarinet, but also extrapolates this symmetry to multiple structural parameters of the composition. Most significantly, he identifies the tritone A-E flat in bar 6 as the central "pivot" of the entire construction, the precise function these same pitches serve in the Sonata.

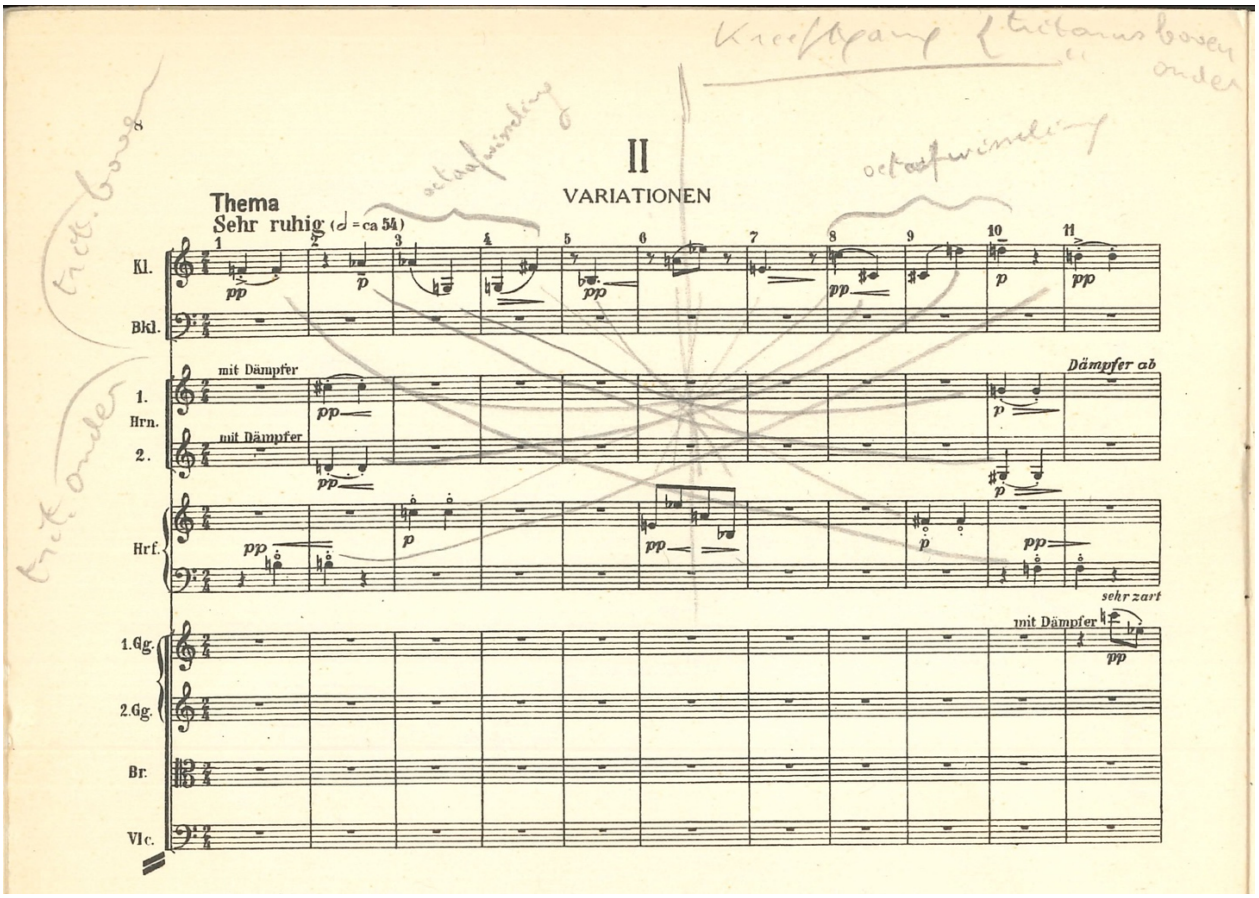

Fig. 5: Goeyvaerts' annotated copy of Webern's Symphony op. 21, second movement, mm. 1–11.

While the multiple symmetry indicated here is visually and conceptually compelling, from a strictly analytical perspective, Goeyvaerts' interpretation is slightly problematic: notwithstanding Webern's claim for his Symphony demonstrating that "[g]reater unity is impossible,"[70] Goeyvaerts has significantly overestimated the technical unity of this particular passage. The "octave exchange" [*octaafwisseling*] Goeyvaerts identifies in the melody of the clarinet is nonexistent; his suggested tritonal division between the clarinet and orchestral parts is likewise somewhat misleading, since the pitch material of the two horns and harp is simply the retrograde form of the

[69] Mark Delaere draws this same conclusion, see '„Jede kleine Leiche könnte ein Beethoven-Thema sein." Karel Goeyvaerts' Webern-Rezeption: Punkte und „tote Töne"' in *Anton Webern und das Komponieren im 20. Jahrhundert. Neue Perspektiven*, ed. Pietro Cavallotti and R. Schmusch (Vienna: Musikzeit, forthcoming).
[70] Webern, 55.

initial series (which does, admittedly, begin by harmonising the F of the clarinet with a B). However, as detailed above, both of these technical devices (fixed register exchange and tritonal pivots) are evident in multiple works by Messiaen and Machaut, as are indeed the other symmetrical relationships of this passage which actually are extant in the score.[71] The example of Webern's Symphony, then, represented the projection of the spiritually-conceived technical devices of Messiaen and Machaut on a broader, parametrically elaborate canvas.

Leibowitz's reading of this same passage notes the symmetrical construction of the row and the "rhythm" (n.b., not durations), but interprets these as *thematic* functions, referring to the harp and horns as "accompaniment" whose material simply "is derived from the retrograde form" of the basic row.[72] Such a subordinate function is irreconcilable with Goeyvaerts' interpretation, which is directly informed by his ideal of a "'static music', i.e. music conceived as a projection in time and space of a basic idea generating the structure."[73] In relation to such an ideal, Webern's music, far from being a logical development of a historical process, is simply another instantiation, complementary to Messiaen, Machaut, and Goeyvaerts' own practice, of formal processes that enunciate a timeless spiritual perfection.[74]

Sabbe remarks that it is "impossible to say with absolute certainty whether Goeyvaerts emulated the late Middle Ages directly" or simply discovered the technical confluence from his analyses of Webern or through Messiaen.[75] This is true, but a certain priority can nevertheless be proposed: Goeyvaerts, in harmony with his understanding of the techniques used by Messiaen and Webern, was adapting structural devices from religious medieval music to the musical means available in the twentieth century.[76] Such a priority is expressed in Goeyvaerts' own writing during the 1950s, which frequently forego contemporary stylistic references in favour of a discussion of his own historically-informed musical ideology. Exemplary is a short essay in the first issue of *die Reihe* (of which the theme was "Electronic Music"), nominally devoted to 'The Sound Material of Electronic Music', which in fact almost entirely comprises an excursus on the cultural-ideological history of art music.[77] Goeyvaerts identifies the early Baroque as the era which "saw the rise of individualism in the composer; he sought his purpose within himself, and attempted to realise it with the means at his disposal."[78] He opposes this tendency with that of earlier musics that closely represent his own artistic credo: "A sound phenomenon is relevant musically in as much as it conforms to the requirements of a spiritually conceived form, to which it has given rise."[79]

---

[71] In his analysis of Goeyvaerts' Sonata, Toop specifically suggests Messiaen's 'Regard de l'Onction Terrible', the eighteenth of the *Vingt regards sur l'enfant-Jésus* (1944), as the example of register exchange Goeyvaerts might have built on (Toop, 154). From an historical perspective, this is rather more opportune than Sabbe's suggestions of the *Livre d'Orgue* and the *Mode*, neither of which Goeyvaerts had any knowledge of during composition of the Sonata (Sabbe, 'Beginnings', 62). However, since these formal devices were present in Messiaen's musical practice since the 1930s, a particular deployment of them is somewhat beside the point.

[72] Leibowitz, *Schoenberg*, 214.

[73] Goeyvaerts, Paris–Darmstadt, 45.

[74] As Jan Christiaens has argued, Goeyvaerts' aesthetic understanding throughout his compositional career is strikingly compatible with aspects Heidegger's philosophy. See Jan Christiaens, '"Absolute Purity Projected into Sound": Goeyvaerts, Heidegger, and Early Serialism', *Perspectives of New Music*, 41.1 (2003), 168–178.

[75] Sabbe, 'Beginnings', 65.

[76] This priority is circumstantially supported by Goeyvaerts' annotated score of Machaut's Messe de Notre Dame, doubtlessly stemming from Messiaen's analysis, which is considerably more detailed than his annotations of Webern's Symphony (see ALKG, 145).

[77] Karel Goeyvaerts, 'The Sound Material of Electronic Music' [translator uncredited], *die Reihe*, I (1957), 35–37.

[78] Ibid, 36.

[79] Ibid, 35.

(Notably, the only twentieth-century composer Goeyvaerts mentions as a fellow traveller in this article is Hindemith,[80] an incendiary figure of creative bankruptcy for Leibowitz and Adorno and widely perceived as "essentially conservative"[81] within New Music circles.) Goeyvaerts depicts a musical present wherein "the individual has stepped back; a realisation of the transcendental has been revealed to him, and he has given up his active position in the face of the Absolute. At this time artistic creation has, in a remarkable way, been freed from the need for personal expression, in that it is conditioned by an almost completely objective system of proportion and balance."[82] In other words, the intractable historical developments and concomitant expressive validity which legitimate Leibowitz and Adorno's understanding of musical material – contrast Goeyvaerts's "Absolute" with Adorno's "absolute", which results from the "musical domination of nature" effected by the dialectical progress of historical consciousness –[83] are precisely those elements which Goeyvaerts denies in his own practice.

While certainly nowhere near as public as the grand pedagogical initiatives undertaken by Leibowitz and Adorno at the same time, which included international conferences and composition courses, Goeyvaerts and Barraqué's musical practice was not totally hermetic. At the premiere of Webern's Second Cantata, Goeyvaerts was given a handwritten copy of the score of by André Souris,[84] which he shared with Herbert Eimert during the performance.[85] Goeyvaerts almost certainly brought this handwritten copy of the Second Cantata – the work was not published until 1951 –[86] back to Barraqué in Paris, since the composer Michel Fano, then twenty-one years old and also a student in Messiaen's class, recalls his first exposure to Webern was going over a handwritten score of the Second Cantata with Barraqué.[87] Like Goeyvaerts and Barraqué, Fano neither studied nor attempted to study with Leibowitz. His own Sonata for Two Pianos (1950–1952),[88] which Toop claims "points in a quite different direction" from Goeyvaerts and Stockhausen's music, namely "to the path which led, via *Structures*, to French 'neo-serialism'",[89] nevertheless utilises a number of technical devices common with the works of Messiaen, Goeyvaerts, and Barraqué during this period: register and dynamic exchanges, isorhythm, modal pitch reservoirs, and large-scale symmetrical constructions with tritonal pivots. These features are analysed in dizzying detail by Jean-Louis Leleu and Pascal Decroupet, who frame their analysis as a firm rebuttal of Toop's suggestion of stylistic relation between Fano and Boulez, concluding:

---

[80] Ibid. Goeyvaerts cites Hindemith's *Sing und Spielmusiken für Liebhaber und Musikfreunde*, op. 45 (1928/1929; admittedly a rather obscure choice) in particular.

[81] This characterization, as well as the Darmstadt reaction against Hindemith (in no small part due to no less than twelve of his works being performed on the official programme in 1947) can be found in Iddon, 26. Conversely, Gianmario Borio has written on why such a recourse to Hindemith was perhaps not utterly against the grain; in very brief summation, Hindemith might be seen as representative of a broadly "objectivizing" trend which, having been interrupted by National Socialist artistic proscriptions, could continue and flourish after the war (Borio, 148–171).

[82] Goeyvaerts, 'Electronic Music', 36.

[83] See Adorno, *Philosophy of Modern Music*, trans. Anne G. Mitchell and W. V. Blomster (London: Continuum, 2007), 154.

[84] Goeyvaerts to Barraqué, 25 June 1950; *Selbstlöse Musik*, 274–277.

[85] Writing thirty years later, Goeyvaerts distinctly remembers "how happy Herbert Eimert was to follow it with me during the performance." Goeyvaerts, 'Paris – Darmstadt', 39. The letter to Barraqué makes no reference to Eimert, perhaps because he was unknown to Barraqué.

[86] UE 11885.

[87] Conversation with the author, 1 June 2017.

[88] Toop gives the dates of composition as 1950–1951 (Toop, 142); Fano's website gives 1952 (http://www.michelfano.fr/Oeuvres/score_Sp2P.html, accessed 25.5.2018). Irritatingly, the fair copy of the score itself is undated.

[89] Toop, 164.

"The density of the carefully controlled network of relations which we see interwoven in the 'coda' demonstrate the degree to which Fano's Sonata, in its conception, is far from the automatic composition cultivated by Boulez in *Structure Ia*…"[90] Interestingly, Toop's analysis also identifies some of these structural characteristics, observing that the initial two series (beginning on C and F sharp) which commence the Sonata are "the most symmetrical of all 12" that Fano's precompositional work has generated.[91] In fact, these two series are not only horizontally symmetrical, as Toop suggests, but vertically symmetrical as well, exhibiting precisely the cross-relationships that Goeyvaerts noted in Webern's Symphony:

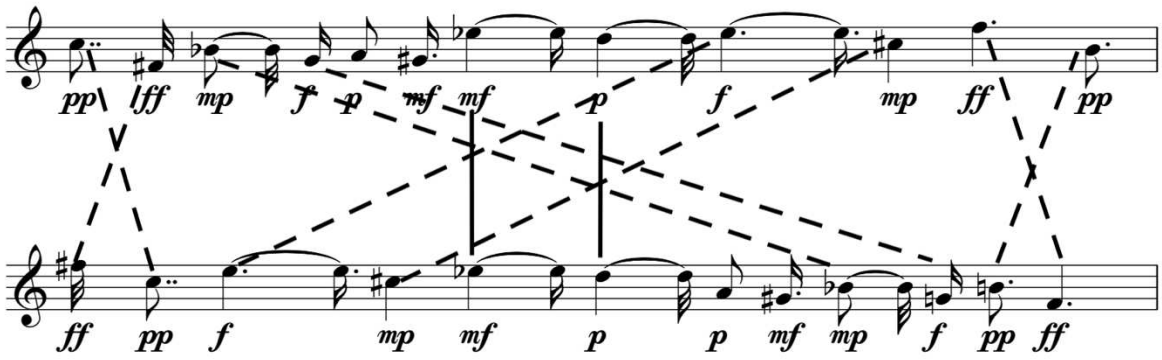

Fig 6. Michel Fano, Sonata for Two Pianos, first paired series with vertical symmetry indicated. This figure corresponds to figs 14–15 in Toop, 166, except Toop has mistakenly given the value of the mezzopiano B flat in the F sharp series (third to last note, below) as an eighth note tied with a sixteenth note, rather than an eighth note tied with a thirty-second note.

However, unlike Goeyvaerts and Barraqué's music of this period, Fano's use of these devices are largely confined to pre-compositional work: the sort of elaborate symmetrical forms visible in the scores for *Melos* or the Sonata for Two Pianos cannot so directly be found on the pages of Fano's music. This is not to suggest that these structures are less integral to Fano's compositional practice – to the contrary, as Leleu and Decroupet demonstrate, they inform Fano's organisation of each compositional parameter –[92] nor that they have less than a profound effect on the finished score. Rather that Fano does not employ them as an end in themselves, but as a structural principle upon which to depart towards radically new and abstract figurations of musical language; they are scaffolding, rather than a blueprint.

The most impressive illustration of these figurations is Fano's follow-up to his Sonata, the Étude for 15 Instruments (1952–1954). The "scaffolding" here is familiar from the Sonata as well as a number of contemporary pieces by Goeyvaerts, Barraqué, and others: the initial presentation

[90] "La densité du réseau de relations, soigneusement contrôle par l'écriture, que l'on voit ainsi se tisse à l'intérieur de la 'coda' montre à elle seuel combien la Sonate de Fano, dans sa conception, est éloignée de la forme de composition automatique cultivée par Boulez dans la Structure Ia... [ellipsis *sic*]" Jean-Louis Leleu and Pascal Decroupet, 'La Sonate pour deux pianos de Michel Fano: Technique sérielle et phrase musicale', in *Rewriting Recent Music History: The Development of Early Serialism 1947–1957*, ed. Mark Delaere (Leuven: Peeters, 2011), 101–138 (138).

[91] Toop, 166.

[92] In addition to the pitch organization discussed above, Fano organizes duration, dynamics, and register symmetrically. Leleu and Decroupet additionally demonstrate Fano's organization of a "mode" combining pitches, durations, dynamics, and registers; see Leleu and Decroupet, 127.

of the 12-pitch series and its fixed registers is sketched by Fano both horizontally and vertically at the top of the first page of the manuscript of the score (see figure 7).[93]

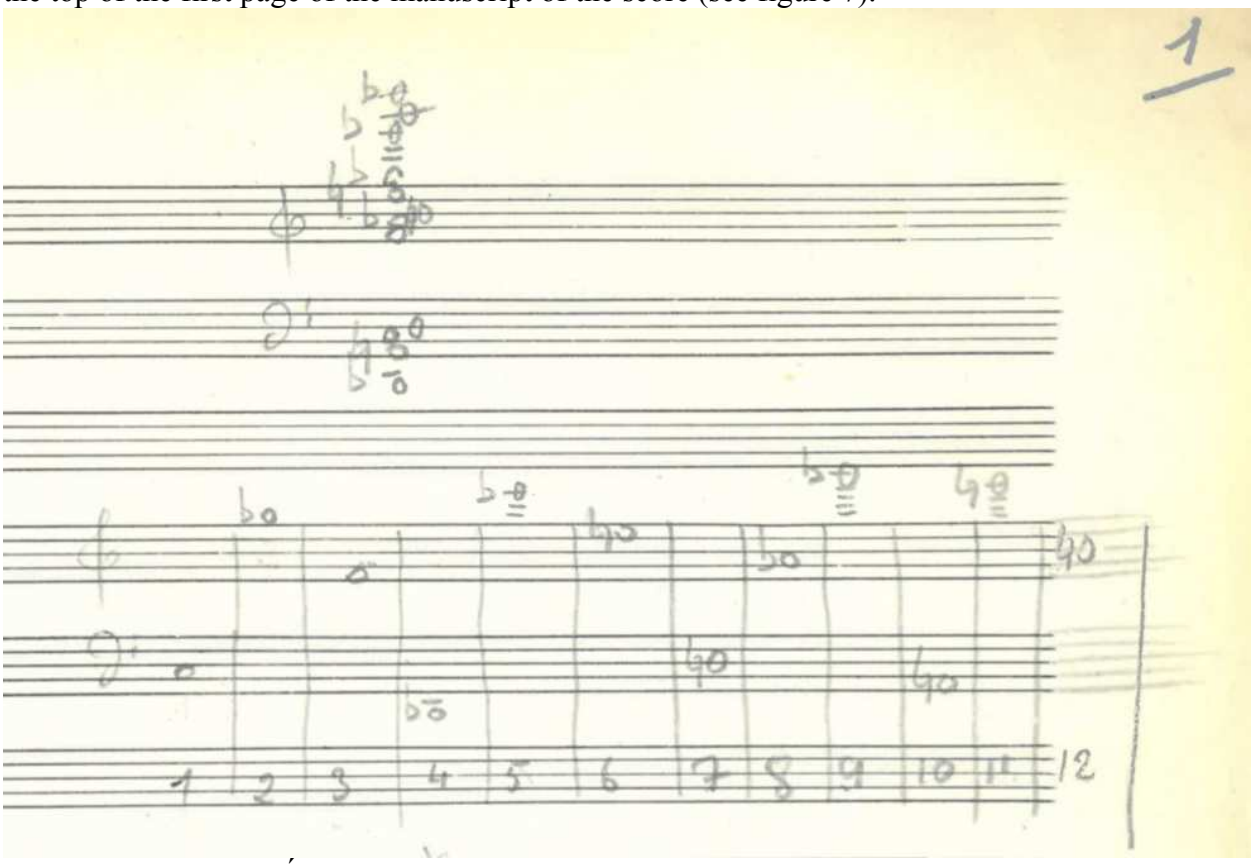

Fig. 7. Michel Fano, Étude for 15 instruments, sketch in upper right corner of corrected MS (see fn. 92 above) showing the basic row in fixed registers both horizontally and vertically.

However, the structural processes at work in the Étude develop towards ends unforeseen in the Sonata. Even from the retroactive, post-complexity perspective of the early twenty-first century, the results are dizzyingly abstract (see figure 8).

[93] Two fair copies of the score were produced, but are now lost, except for a single, two-sided page. Fano rediscovered the corrected manuscript of the score in 2018; I have scanned the manuscript and am currently working on a performance edition of the score.

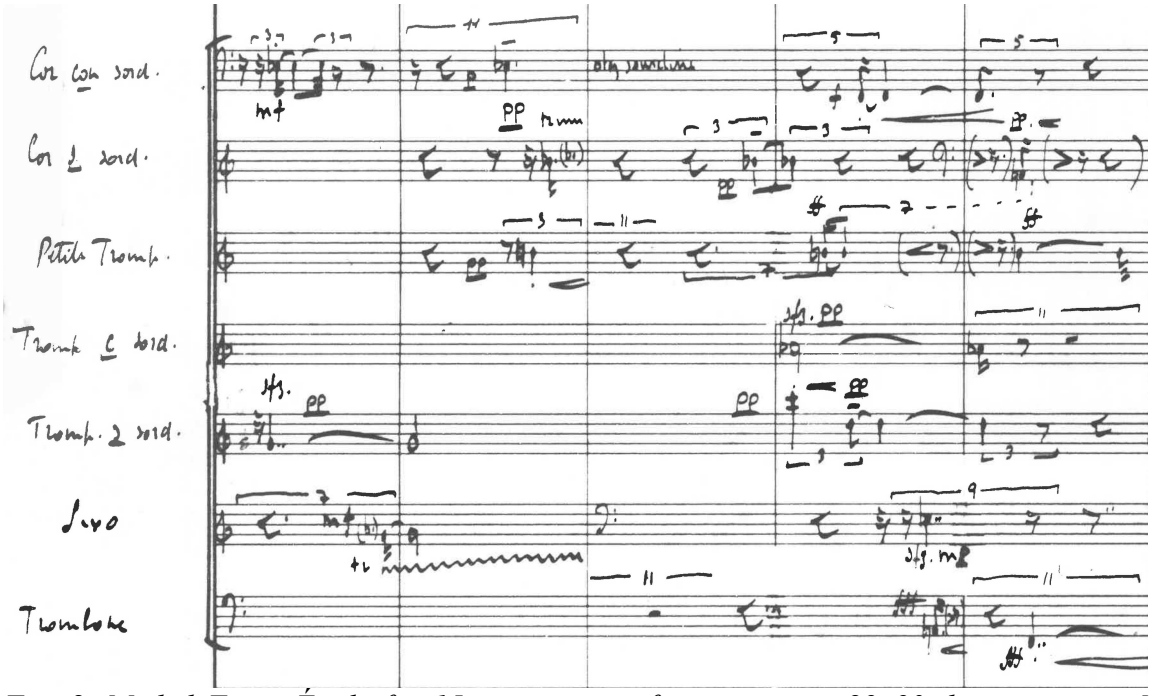

Fig. 8. Michel Fano, Étude for 15 instruments, fair copy mm. 89–93, brass section. Note the incomplete 11-uplets given to rests and the septuplet which begins in the piccolo trumpet but concludes with the second horn.

Fano treats the duple meter – consistently maintained with few exceptions throughout the piece but undergoing elaborate fluctuations in tempo (e.g. accelerandi from ♩ = 50 to ♩ = 52 over three measures) – as a sort of time matrix, a template over which he gradually displaces the positions of sound events. This begins, intuitively enough, by dividing bars into tuplets (3, 5, 7, 9, 11), but these irrational durations are increasingly applied not only to the sound events themselves and their immediate surroundings, but also to the broader temporal unfolding of the total aural space. Fano's manipulations make it so that even a "rational" duration (say, a quarter note outside of a tuplet) can occur at an "irrational" location (immediately following a rest that represents one eighth note of a septuplet). There are also numerous instances of tuplets interrupted by another tuplet before concluding their duration, tuplets beginning in one instrument but finishing in another, and approximate durations given as parenthetical rests with a ">" or "<" indication (cf. figure 8). Occasionally Fano simply marks a tuplet value with an exclamation point, which evidentially signifies an infinitesimal truncation of the tuplet (see figure 9).

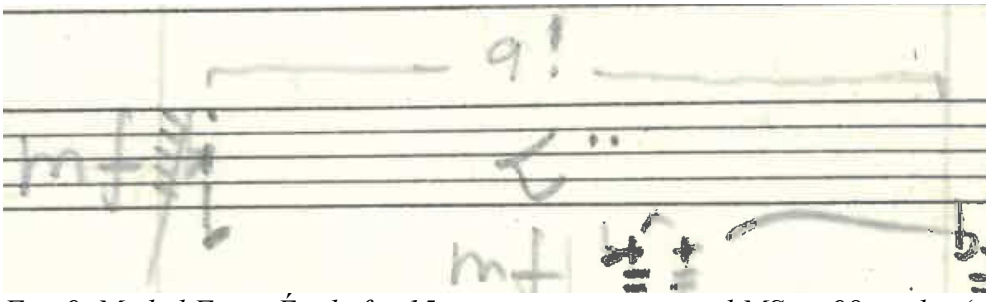

Fig. 9. Michel Fano, Étude for 15 instruments, corrected MS m. 98, violin (enlarged).

It should be immediately emphasized that these summative remarks should in no way function as a satisfactory analysis of Fano's music at this time; to the contrary, they risk presenting a deceivingly transparent description of increasingly complex methods Fano develops and over-simplifying what is a truly remarkable compositional practice. Indeed, while his formal vocabulary exhibits technical devices common to Messiaen, Barraqué, and (if only indirectly) Goeyvaerts, it is precisely this irreducible complexity and dynamism is what distinguishes Fano's practice from that of Messiaen, Barraqué, Goeyvaerts, and (later) Stockhausen during this period.

Such a stylistic divergence would appear to stem from Fano's idiosyncratic readings of the mature works of Alban Berg. This may at first seem somewhat counterintuitive, since the formal devices deployed by Fano in these works parallel those which Goeyvaerts and Barraqué "discovered" in Webern. Indeed, Toop is eager to link Fano's work with Webern, noting that in the Sonata, "Webern's method of using the last notes of a series as the first notes of the next (e.g. Concerto, op. 24) yields a continuous sequence of transpositions by a fourth."[94] But subsequent analysis by Jean-Louis Leleu and Pascal Decroupet reveals that Fano's model is, "paradoxically", the all-interval series which is "cyclically deployed" by Berg in the first movement of the *Lyric Suite*.[95] Fano's interpretation of *Lulu* is even more revealing of the scope of his compositional concerns: as a student, he identified how the palindromic dramatic form of the opera complemented palindromic forms in the music and observed that structural aspects of the row-forms deployed corresponded with psychological qualities of the characters (e.g. the "inversion" assigned to the lesbian Countess Geschwitz).[96] But Fano's inspiration from Lulu goes further: in an unpublished essay from 1953, he deploys the basic row of the opera as a "série génératrice" which, when emplotted in a 12-by-12 matrix, reveals a reciprocal correspondence between the intervallic "space" of the series and its deployment in "time".[97] By manipulating these matrices, especially through multiplication, Fano is able to generate new material, which he calls "séries deduites" from the same basic series, a process which appears to prefigure the use of "pitch multiplication" and "proliferating series" in the works of Boulez and Barraqué, respectively, later in the decade.[98] In this light, Toop's comment on Fano leading the way to "French 'neo-serialism'" is actually insightful, if misapplied.

If the all-interval series undergirding the *Lyric Suite* and the palindromic structure of *Lulu* are by now commonplace analytical observations, it is worth emphasizing, again, how both the identification of these structures and the significance attached to them by Fano was far from established in the post-war period. In accordance with his reading of Berg's work as "The Awareness of the Past in Contemporary Music",[99] Leibowitz emplots Berg's music *tout court* as self-consciously striving to link Schoenberg's techniques to classical forms. Thus, for Leibowitz, the Lyric Suite is simply another instance of Berg reconciling Schoenberg's "acquisitions": "[J]ust as Schoenberg's harmonic acquisition of fourth-chords was traditionally consolidated, in a tonal manner, by Berg, the 'traditional process' of the creation of the twelve-tone technique is repeated

---

[94] Toop, 167.
[95] Leleu and Decroupet, 105.
[96] Conversation with the author, 3.1.2016. Fano's knowledge of Lulu at this time was somewhat limited, however, since he only had access to a piano reduction of the score (which, of course, omitted the incomplete third act; conversation with the author, 29.1.2019).
[97] See Michel Fano, 'Séries deduits', unpublished manuscript, 1953. This point in particular is confusing, since by "time" Fano seems to understand a conceptual function of the row itself separate from rhythm or metre.
[98] Ibid.
[99] The subtitle for the third part of *Schoenberg et son école*.

in the Lyric Suite."[100] For Berg's operas, Leibowitz's search for "awareness of the past" is even more pronounced: he reads both *Wozzeck* and *Lulu* as a return to the vocal primacy found in Monteverdi after the orchestral confusion of the post-Wagnerian era. While it is not lost on Leibowitz that, in *Lulu*, "Berg assigns the roles of the male characters in the third act – those who will be responsible for Lulu's death – to the same singers who, in the first two acts, took the parts of the men for whose death Lulu was responsible," he notes this only as an example of "vocal unity".[101]

III. Karlheinz Stockhausen

All available evidence points to Karel Goeyvaerts not enjoying himself at the 1951 Darmstädter Ferienkurse. To begin with, he had reservations about his lodging arrangements, writing to his cousin Mia Greeve, "I'm sharing my room with a Swiss from Basel, who is a dodecaphonist …"[102] This Swiss dodecaphonist was Jacques Wildberger, for whom the feeling seemed to be mutual. In his autobiography, Goeyvaerts remembers that "serial thinking had caught on" amongst the younger participants, and he "had little response to my ideas concerning 'static music'".[103] In a letter written to Jean Barraqué from "a table on the refectory terrace of the 'Seminars [*sic*] Marienhöhe'", Goeyvaerts frames his annoyance in much the same way as his later autobiography: "From morning to evening there is discussion, we kill ourselves in German, English, or French. Everybody is serial and nobody understands anything of it. It is insane that the world occupies itself with serial academicism."[104] Tellingly, Goeyvaerts came to this grim verdict three days *before* the opening of the Second International Twelve-Tone Congress, which doubtless would have done little to improve his mood.

Goeyvaerts was not utterly alone. In his letter to Barraqué, he mentions that despite his almost perpetual irritation at the other participants, "to my great joy, I have met a young German who I will tell you more about in Paris, who I found in a sort of despair at the recent evolution of Schoenberg and others less talented, who no longer respond to the musical ethos today."[105] Karlheinz Stockhausen was immediately receptive both to the technical vocabulary of Goeyvaerts' practice, and, as a fellow devout Roman Catholic, its spiritual foundation (as Goeyvaerts describes it to Barraqué: "After a conversation which went to the heart of things, I knew he had experienced the joy of a deliverance").[106]

The concrete result of this "deliverance" on Stockhausen's part was *Kreuzspiel* (1951), which he had already begun sketching at his departure from Darmstadt. As might be expected, this piece utilizes many of the same formal devices present in contemporary works by Messiaen, Barraqué, and Goeyvaerts, in particular the latter's Sonata for Two Pianos. Indeed, Sabbe has

---

[100] Leibowitz, *Schoenberg*, 157, fn 24.
[101] Leibowitz, *Schoenberg*, 177.
[102] "We hebben tweepersoonskamers; ik deel de mijne met een Zwitser uit Bazel, die dodecafonist is …", Goeyvaerts to Mia Greeve, 2 July 1951. See *Selbstlose Musik*, 296.
[103] Goeyvaerts, 'Paris – Darmstadt', 45.
[104] "Du matin au soir on discute, on se tue en allemande, en anglais ou en français. Tout le monde est serial et personne n'ua rien compris. C'est fou comme le monde se remplit de sériels académiques." Goeyvaerts to Barraqué, 29 June 1951. See *Selbstlöse Musik*, 282.
[105] "Mais j'ai eu la grande joie de faire la rencontre d'une jeune Allemand dont je te reparlerai à Paris et qui j'ai trouvé dans une sorte d'angoisse devant l'evolution récente Schönberg et d'autres moins géniales, qui ne répond plus aux besoins de la sensibilité musicale d'aujourd'hui." Ibid.
[106] "Aprés une conversation, qui est allé jusqu'au fond même des choses, la joie d'une délivrance [...]" Ibid.

complied a characteristically exhaustive list of procedures Stockhausen borrowed from his older friend, most significantly "deployment of cross-structure at different levels (phrase, section, global form) as well as its different aspects: convergence-divergence, reversal, exchange."[107] This is again the exact structure that Goeyvaerts and Barraqué had "discovered" in the second movement of Webern's Symphony – whatever knowledge Stockhausen had of Webern during the composition of *Kreuzspiel* had come directly from Goeyvaerts.

Like the majority of the other Darmstadt participants, Adorno had none of Stockhausen's sympathy for such a practice. With a certain poetic irony, he had replaced Schoenberg as composition faculty (due to the latter's severe illness), and it was in his seminar that Goeyvaerts and Stockhausen performed the second movement of the Sonata for Two Pianos. Adorno's bewilderment at this encounter is legendary. In an apparent attempt to accommodate what he had heard to his thematic understanding of serial technique, he repeatedly questioned the two young composers on antecedent and consequent phrasing, which led to Stockhausen's reply, "Herr Professor, you are looking for a chicken in an abstract painting."[108] These two conceptions of musical practice – the serialism of Leibowitz and Adorno and the 'static music' of Goeyvaerts and Stockhausen – were irreconcilable at this juncture.

Postscript: After 1951

For his part, Boulez actively sought to push Stockhausen away from "static music", instructing him that *Kontra-Punkte* (1952–1953) was "too rigid" and recommending "more density, more vitality".[109] The development of Stockhausen's musical practice suggests that, for the short term at least, he took such advice to heart: he soon described Goeyvaerts' "static music" instead as "point music", a term coined by Stockhausen's patron Herbert Eimert, which was, in Stockhausen's new reckoning, merely an embryonic stage towards more dynamic musical forms.[110] The professional reasons for such a development were, for Stockhausen, perhaps more compelling than the aesthetic ones. Adorno's dismissal of Goeyvaerts and Stockhausen as (respectively) "*Adrian Leverkühn und sein Famulus*"[111] threatened to consign Stockhausen to the same anti-historical limbo occupied by Goeyvaerts. The premiere of *Kreuzspiel* at the 1952 Darmstadt courses led the critic Albert Rodemann to repeat Adorno's characterisation of Stockhausen as a brainwashed Goeyvaerts lackey in even more damning terms: "Following a system of 'static music', the indefensibleness of which Theodor Adorno already demonstrated the

---

[107] "Verwendung der Kreuz-Struktur auf verschiedenen Ebenen (Satz, Teil, Werkganzes) und unter ihren verschiedenen Aspekten: Konvergenz-Divergenz, Rücklauf, Austauch." See Herman Sabbe, 'Die Einheit der Stockhausen-Zeit...', in *Karlheinz Stockhausen: ...wie die Zeit verging...*, ed. Heinz-Klaus Metzger and R. Riehn, *Musik-Konzepte*, 19 (1981), 20. Sabbe goes on to describe the various pivot-functions that result from this cruciform structure.

[108] Reported in Iddon, 55–57.

[109] Ibid, 99.

[110] Compare Karlheinz Stockhausen, 'Situation des Handwerks (Kriterien der punktuellen Musik)' with 'Gruppenkomposition: Klavierstück I (Anleitung zum Hören)', in *Texte zur Musik* (Cologne: DuMont, 1963), 17–23 and 63–74, respectively. The teleological development Stockhausen outlines (from "points" to "groups" to "moments") has been adopted as a broader historical framework by several musicologists; cf. Pascal Decroupet, 'Konzepte serieller Musik', *Im Zenit der Moderne*, I, 285–425.

[111] See Iddon, 57–58. This is of course a further example of the incestuous nature of Adorno's aesthetic vocabulary, since Adorno himself was instrumental in the creation of both the technical and aesthetic facets of Leverkühn's character (something of a Schoenberg-Hauer hybrid) in Thomas Mann's *Doktor Faustus*.

previous year to its Flemish inventor, the sound of the piece goes far beyond that which we have been accustomed to call music. That he [n.b. it is unclear whether this pronoun refers to Stockhausen or Goeyvaerts] finds a few devotees to celebrate his work [...] doesn't change things a jot. Every idea finds its prophets. And its sect."[112] At any rate, Stockhausen's adaptation to a general (and now international) practice of serial music signified that the tradition of *durchgeordnete Musik* had been historically eliminated, leaving Goeyvaerts to continue his practice in the role that had been newly assigned to him: a wayward Hauer disciple, a cosmic eccentric detached from the teleological continuum of musical progress. He was once again alone at Darmstadt.[113]

As Iddon has observed, "there is little in Adorno's later writing – and he returns to this event repeatedly – to suggest that he every truly 'comprehended' what Goeyvaerts was trying to do."[114] Fortunately for Adorno, comprehension was not a necessary prerequisite for ideological assimilation. In a note to the third edition of *Philosophie der neuen Musik* (1958; the work had been out of print since 1953), Adorno claims that his decision to republish this text arose not from popular demand but to counteract a "less-friendly assertion that the book had done its duty and that there was no longer any particular need for it today."[115] Going a great deal further, he claims that in fact his ideological exegesis of Schoenberg "critically anticipates developments in music which manifested themselves only after 1950."[116] The nature of these "developments" is not described, nor does it have to be: since Adorno has predicated his aesthetic ideology on an ineluctable historical necessity, whatever works it turns its gaze towards must also be ineluctable and historically necessary. His aesthetic history is, and can only be, a self-fulfilling prophesy.

But there is nevertheless an unexorcized remainder in this emplotment. If the line from Schoenberg, Berg, and Webern, to Leibowitz, Adorno, and Wladimir Vogel,[117] to Boulez, Henze, and Wildberger is direct, patrilineal, logical, and historically necessitated (qualities which Leibowitz and Adorno are at pains to demonstrate in the work of the Second Viennese School), there are several composers of the so-called Darmstadt School whose compositions, aesthetics, philosophy, pedagogical development, and professional careers do not fit into such a model of direct succession either musically or ideologically. These composers pose a problem to a coherent, linear historical articulation of the post-war musical avant-garde, resulting in efforts, like that of Griffiths detailed previously, to bring them back into the fold, as it were. But such a narrative is itself a historical phenomenon, deployed as a selectively legitimising discourse by composers, critics, philosophers, journalists, and musicologists to justify and make sensible artistic practices by emploting them within a familiar ideology. In the case of post-war New Music, the ideology adopted was that of Leibowitz and Adorno: the linear, ineluctable, and universal development of Western art music, from emergence of polyphony onwards, which necessitates a single legitimate and common musical vocabulary used by an international avant-garde.

---

[112] Quoted and translated in Iddon, 85.
[113] Figuratively. In reality, Goeyvaerts would not attend Darmstadt in person for over three decades after his final appearance in 1952.
[114] Iddon, 59.
[115] Adorno, *Philosophy*, 159.
[116] Ibid. Adorno's observation that this section was "written almost twenty years ago" appears almost parodically self-congratulatory.
[117] Swiss composer who taught Jacques Wildberger twelve-tone technique; Wildberger would later emphasize that Vogel was his only formal instruction in composition. See Michael Kunkel, '"Das linke Ohr": Gespräch mit Jacques Wildberger, Riehen, 27. September 2001', in *fragmen*, 38 (2002), 17.