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# Unity and process in Roberto Gerhard's *Symphony no. 3, 'Collages'*

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## ABSTRACT

Roberto Gerhard's *Symphony no. 3, 'Collages'* (1960) presents most of the crucial aesthetic questions that preoccupied Gerhard throughout his artistic life – including the use of Spanish traditional music, the exploration of *musique concrète* and the use of serial techniques as compositional syntax. This paper attempts to explore which musical processes of the symphony articulate a coherent and unitary narrative - regardless of the diversity of compositional procedures operating in the work. A step towards the understanding of this work is to research Gerhard's compositional plan of the work. Yet the pre-compositional decisions of the composer may not be significant from the listener's perspective. During the time of composition of the symphony Gerhard experimented with compositional techniques tending to control and serialize all compositional parameters. Gerhard's free handling of such techniques will be examined with an emphasis to its aural impact. The paper tries to explore ways of understanding the formal mechanisms of the piece without relying exclusively on an analysis of the serial technique and favoring a parameter-based concept of formal articulation

## 1. UNITY AND PROCESS IN ROBERTO GERHARD'S *SYMPHONY NO. 3 'COLLAGES'*

It is difficult to affirm whether Gerhard consistently followed his own serial technique in the compositional plan of the *Symphony no. 3, 'Collages'*. As a matter of fact, the goal of this paper is not to establish if the compositional plan deployed in this work coincides with the compositional techniques exposed in the talk 'Functions of the Series in 12-Note Composition' - delivered at the University of Michigan at Ann Arbor in 1960 [1]. In that particular talk, Gerhard illustrated how the numerical proportions expressed by the tones of a row would not only apply to relative durations (matching the number of semitones with the number of a particular duration) but also with absolute durations (matching the number of semitones with the number of minutes of a work). Gerhard referred to this process as the unfolding of a *time set* contained in the prime row of a work.

It is true that the large-scale implications of the time set could be understood using the method elucidated in 'Functions of the Series in 12-Note Composition', as Susan Bradshaw did with *Symphony No. 2* [2]. However, unveiling a hypothetical pitch-metrical ordering underpinning the entire piece would not significantly identify the crucial thread of the listening experience. The deployment of the pitch-metrical set, although it would instruct us as to Gerhard's compositional process, are not within the capabilities of a trained listener. As with the mensural complexities of Franco de Cologne (whom Gerhard mentions in the article referred to above), they mostly play a role as *augen-musik*, and figure only vaguely and unconsciously in the true perceived narrative of the work. Only a close visual study of the score (independent from any listening) reveals the time-pitch correlation found at a local scale. Moreover, when confronting the use of the tape in the work, one is struck by how it challenges the possibility of a highly regulated ordering of the pitch and durational parameters in the work. If, in the music of composers such as Milton Babbitt, [3] the use of electronic and pre-recorded material represents a possibility of expanding the human capabilities of performance (in terms of pitch and rhythmic precision) for Gerhard, the use of tape seems to introduce an element of freedom in the work, which is interesting considering the extreme precision demanded from the players. The *concrète* sonic material of the tape is mostly based on percussive sources of undetermined pitch or sounds with a blurred-pitch quality.

In a tonal context, the dissonance-consonance dichotomy provided the basis for articulating the formal discourse [4]. Dissonances destabilized the consonance's firmness and created a need for resolution. Thus, dissonances would provide music with a drive and impulse towards points of harmonic completion and fulfillment. The components of the musical discourse would either move away from a consonance, creating an opening, or would return to it, producing a closure. The concepts of continuity and closure provide a precise terminology for defining the basic operations for musical discourse. The large design of a work is based on these parameters.

However, in the absence of a tonal framework, one would imagine other structures and processes replace the role of dissonance and consonance. The structural units of the discourse are extended throughout spans where the musical elements provide continuity until a closure is achieved.

A powerful strategy for analysing the structuring of segments and formal units within a post-tonal [5] context is proposed by Christopher Hasty [6]. His formal discussion is based on the notion that strong structural connections occur within the tones of a work when there is an homogeneity between different domains within which these tones are rendered. The term 'domains' alludes to the different fields of activity which participate in musical syntax: pitch, contour, rhythm, timbre, dynamics, etc. Whenever a group of tones share a similar manipulation on a significant number of domains, these tones would be perceived as a consistent unit or segment. On the other hand, if there are dissimilar patterns within the different domains of a group of tones, these tones will be perceived as discontinuous. This view incorporates a wide range of musical elements into the formal evaluation of a work. Moreover, it provides a vehicle to comprehend the perception of continuity and closure in the absence of a dissonant and consonant frame of reference.

The analysis of Hasty focuses on how similar activity in different domains creates segments on a local scale. To discuss in detail the 'foreground' or local events of *Symphony No. 3, 'Collages'* would be an undertaking too extensive for the scope of this investigation. Nevertheless, the analytic propositions set forth by Hasty suggest paths to explore formal relations on a larger scale. We do not intend to follow his exact same analytical method, although, it is Hasty's emphasis on the interaction between different domains as basis for formal articulation that constitutes a methodological principle in our investigation.

Observing the activity within the various domains in different sections of the work reveals how the continuation and closure process function in the Symphony. The analysis of the activity within different fields of the work points toward the strategy followed in each moment to unfold the linear discourse of the entire work [7]. Comparing different sections of the Symphony reveals the very particular and idiosyncratic way in which Gerhard treats the degree of activity among different domains.

One of the first impressions the work produces on the listener is an apparent succession of static and dynamic states. The music conveys moments where a particular element of the musical discourse seems to 'freeze' while in other moments it seems to build a progression through the accumulation and saturation of another particular element. These auditory impressions can be corroborated and explicated by analyzing how the activity within different domains articulates a given fragment. As a matter of fact, the terms 'saturation', 'accumulation' or 'frozen space' provide illustrative concepts to understand the strategies followed by Gerhard when articulating the work.

The continuity and forward motion towards moments of closure is achieved not only through the homogenous activity in various domains, making the listener hear different tones as belonging together, but also through an energy increase in various domains, often achieved by means of the saturation and accumulation within a particular domain. It is also possible that a segment that is perceived as unitary does not create an impulse towards closure and just functions as a transition, digression, or relaxation after a climatic point. As the analysis reveals, the Symphony is constituted by a succession of musical spans (often elided), in which the activity in one domain carries the weight of providing continuation, forward movement or a propelling sense to the musical discourse. The activity in that domain contrasts with the stable and unchanging nature of other of

the domains. The discussion of four different passages of the symphony will illustrate this formal process.

The opening of the Symphony dramatizes the compositional strategy of stopping or 'freezing' one domain while changing the level of activity in others (Figure 1). The pitch-space domain remains static: each pitch occupies a fixed position that will not change throughout this span, until a new 'frozen' or 'fixed' pitch group is introduced.

The figure displays a musical score for the opening of the Symphony, marked "I. Allegro moderato" with a tempo of approximately 108 beats per minute. The score is divided into three horizontal domains, each with a vertical line indicating its extent:

- "Frozen" pitch space domain:** This domain is characterized by static pitch positions that do not change over time. It is noted as being "Difficult to melodically connect individual pitches." A vertical dashed line at measure 13 marks the introduction of a "New 'frozen' pitch space." Circled numbers 1, 7, and 13 are placed above the staff to indicate specific measures.
- Attacks and durations domain:** This domain shows an increasing density and saturation of rhythmic attacks and note durations. It is labeled as having "+forward motion." Rhythmic patterns are shown with stems and flags, and some are annotated with numbers like 5, 3, 7, and 5, possibly indicating note values or attack durations.
- Timbre and dynamics domain:** This domain tracks the addition of instruments and changes in dynamics. It starts with "3 Tpt" (trumpets) at a fortissimo (*ff*) dynamic. Subsequent additions include "Tb. timp." (trombone and timpani), "Picc. piano" (piccolo), "Cl.Ob." (clarinet and oboe), and "Trombone." The dynamics fluctuate, with later sections marked *pp* (pianissimo). The strings are also present, with dynamics ranging from *pp* to *ff*.

Figure 1

At the same time, the number of rhythmic attacks and the duration of notes incrementally increases its activity, from two attacks separated by more than one measure (measures 1-3) to four attacks occurring in measure 5. The timbre and dynamics also experience an accumulation of elements with the progressive addition of instruments. Thus, the continuity and forward motion in the first eleven measures of the Symphony are achieved through the activity in the domains of timbre, dynamics and durations [8].

A different scheme informing the activity within the domains takes place later on in the same section (Figure 2). The continuity of the discourse is achieved through the succession of four-note melodic articulations. These groups of notes share a similar melodic contour, span a similar register space and have a similar instrumental arrangement (one ascending dyad in one instrument followed by another ascending dyad in other instrument). If the instrumental and attack saturation created continuity in the fragment previously discussed, in this fragment the continuity is achieved through melodic unfolding.

Pitch successions with a continuation role

Melodic gestures of four notes  
 Each four-notes segment has the same rhythm and contains two dyads with the same contour  
 The continuation of the musical discourse is based in the succession of these segments

**Figure 2**

A fragment extracted from the third section illustrates how the action within the domain of durations remains constants while the progressive saturation of pitch space and orchestration propels a continuous forward motion (Figure 3).

$\text{♩} = 84$  (207)

Pitch space  
 Progressive increment  
 +Saturation  
 +Tones start to fill-in all the space

Durational domain  
 Invariable pattern  
 Even spacing of attacks  
 Doesn't change throughout time

Timbre: progressive increment of instruments and registral-space

Piano + strings  
 E.H.

+Ob.  
 +Xylorimba

+Bass cl.  
 +Marimba  
 +Vibraphone

**Figure 3**

Completely different from the three fragments discussed above is the approach undertaken in the central section (Figure 4): there is a minimum of activity in all the different domains: the attacks are widely spaced, the pitch space seems to be again 'frozen,' the section is sparsely orchestrated, there are no significant changes of instruments, it is difficult to perceive melodic segments and the dynamics remain soft throughout the moment. All these elements create a sense of stillness and a lack of motion. This section is the only moment in the Symphony where the strategy of linear continuity underpinning the musical discourse is abandoned. This central section, the only in which the tape is not used, works as a hinge for the entire Symphony.

IV. Moderato (♩ = c. 80)

249

The musical score for IV. Moderato, measures 249-258, is presented in two staves. The top staff is for the piano and the bottom staff is for the harp. The tempo is marked 'IV. Moderato' with a quarter note equal to approximately 80 beats per minute. The key signature has one flat (B-flat). The piano part begins with a 'cluster' in measure 249, followed by a rest. The harp part begins with a 'Piano' dynamic in measure 249, followed by a rest. The music is marked with '+Harp', '+Piano', and '+Vib.'.

Figure 4

After analyzing the strategies operating in these four fragments we can consider how they may function in the macro-structure.

We observed how the central section, the only one which does not make use of the tape, is characterized by a motionless and static quality. The music seems to have lost the linear progression quality of the previous movements. This section is preceded by a gigantic climax at the very end of the third section (measure 248). This climactic point is very similar to the end of the first section: once again it is a short chord played by the *tutti*, prepared by a rest and followed by the resonance of the piano. Thus the climax of the third section (measure 248) is almost an expansion of the climax of the first section (measure 42). The formal strategy of the first movement is to create a progression and dramatic ascent to the culmination point of measure 42; the overall formal argument of the three first sections is to create a large dramatic arch that culminates in measure 248. All previous music leads to this point. However, this culmination, because of its extreme use of dynamic and short duration that drops suddenly to a long rest, has the effect of a sudden blockage to the musical discourse. Alluding to the central movement Gerhard wrote that in retrospect it reminded him of what goes on in the mind of someone who has lost consciousness [9]. This analogy seems most appropriate: the music has lost its sense (its forward motion towards a goal) and it would not be recovered until the next section, when a new dramatic ascent will lead to the final culmination and apotheosis of the work.

After the 'unconscious' central movement, which brings the linear discourse of the Symphony to a halt, a new dramatic progression starts. Thus, the formal strategy of the final three sections is to build an ascension to the final climax: a long and sustained climax that will fulfill the dramatic trajectory of the Symphony. If the end of the third section sounds like an interruption of the linear unfolding, the end of the last section functions as a fulfillment of all the previous developments.

The seventh and last section of the piece contains a number of elements that result in shaping its role as the culmination of the piece. The section does not begin with the deployment of either tetrachord [0,1,2,4] or [0,1,2,3] as in all the previous ones. Instead, after a two measure long powerful unison, tetrachord [0,2,5,7] is introduced; the chromatic quality has opened up into a succession of fifths. Also, the texture of measures 558-561 recalls the opening measures of the Symphony, with its trumpet calls and the piccolo and basses framing the boundaries of the pitch space. This final section articulates a big crescendo that leads to the final chord which contains all twelve pitch-classes (*tutti* in fortissimo). This final chord closes the dramatic narrative of the Symphony, a narrative that can be summarized as follows:

A progression throughout the first three sections is interrupted at the very end of the third section. That interruption leads to a static section, where the linear continuity and forward propulsion of the work is interrupted. The motion towards the culminating point is restarted in section five and gradually builds up a progression that will conclude at the end of section seven. Thus, section seven brings a final resolution to the teleological course of the Symphony.

The possible extra-musical implications of this work exceed the scope of this paper. However, we can propose a compelling narrative of the symphony without falling into a mere account of

compositional devices. Any attempt to understand the work of Gerhard should respond directly to the energy flow of his music.

## 2. REFERENCES

- [1] Aside from a few articles published in the '50's in the British journal *The Score*, the talks constitute the only verbal account of the compositional process involved in his late works. In the article "Developments in Twelve-Tone Technique" (1956) the composer presents the basis of his particular use of the twelve-tone system, which implies time-pitch correlations. It is not until the 1960's talks, however, that he gives a more fleshed out illustration of his particular compositional approach. They include the only instances of a practical indication of how his pitch-durational serial organization might be applied to a specific composition. GERHARD, R. 'Functions of the Series in 12-Note Composition,' in BOWEN, M. (ed.), 2000. *Gerhard on Music: Selected Writings* (Aldershot: Ashgate, pp. 157-73.
- [2] BRADSHAW, S. 1981. 'Symphony No.2/Metamorphosis - The Compositional Background', in *Tempo* 139: 251-55.
- [3] The work *Philomel* provides an interesting example. When the electronic part of the piece was orchestrated, the result of its performance could not render with precision the constellation of rhythmic proportions intended by the composer.
- [4] Affirmation based on Charles Rosen's approach to tonal form.
- [5] Post-tonal indicates here a musical context where the interplay of consonance and dissonance does not carry the weight of articulating the formal discourse. We find it more precise than the term 'atonal' which seems to imply discarding any potential 'tonic.' There are instances of post-tonal music where a particular tone, because of its hierarchical preponderance, might be regarded as a 'pseudo-tonic.'
- [6] HASTY, C. 1981. 'Segmentation and Process in Post-Tonal Music,' in *Music Theory Spectrum*, Vol. 3: 54-73.
- [7] The term 'field' is taken from ESCOT, P. and R. COGAN. 1976. *Sonic Design: the Nature of Sound and Music*, Prentice Hall, Inc.
- [8] A more thoroughly analysis of all the possible domains constituting the design of this passage would be feasible; however, it would require a lengthy discussion which we judge not necessary to understand the basic formal operations of the passage.
- [9] CARNER, M. 1972. Introductory notes to Roberto Gerhard *Symphony No. 3, 'Collages'*, London: Oxford University Press