"Trope" by Pierre Boulez

by Peter O'Hagan

The première of Boulez's Third Sonata, at Darmstadt, on 25th September 1957, was given by the composer at a Kompositionsabend dedicated to his music, and was preceded by a record of a performance of Le Marteau sans maître under Boulez's direction. The concert was repeated in Berlin three days later, and Boulez gave several further performances of the sonata during the next year – in Paris (1st March 1958), Cologne (where the concert, on 24th March 1958, included the first performance of Stockhausen's *Gruppen*), and Düsseldorf (29th October 1958). A studio recording made at the time of the Cologne performance reveals the still fragmentary state of the Third Sonata, with only the second and third of the five Formants having reached their final form. "Trope" and "Constellation-Miroir" were published by Universal Edition in 1962 and 1963 (UE 13292 and UE 13292b, respectively), but despite the subsequent appearance of "Sigle" (in UE 12050, pp. 88-89), a short extract from the unfinished first Formant, "Antiphonie", the work has remained in an unresolved state for four decades, notwithstanding the fact that the sketches for it are among the most extensive for any of the works in the Pierre Boulez Collection at the Paul Sacher Foundation. The first drafts date from as early as 1955, with the dedication to Heinrich Strobel of an unidentified fragment of the fifth Formant, "Séquence", "à l'occasion du dixième anniversaire de son activité en Südwestfunk",1 whilst work on the expanded version of "Antiphonie" continued at least until the summer of 1963 with the completion of the unpublished "Trait initial".

The planned circular structure of the work, with four Formants revolving around the central "Constellation", is well known from Boulez's article, "Sonate 'que me veux-tu'". A central concern is the integration of serial organisation on a local level with large-scale structure. Boulez's preliminary sketches demonstrate how the same row was to be treated in a variety of ways consistent with the overall structure of the five Formants, and an early jotting lists the serial characteristics of each³:

"Ordre des Formants

report intervalle [Formant]

- Série avec valeurs-temps liées [i]
- Série normale avec série temps déliées [ii]

f cellules rythmiques

- Série normale avec | grpt. de valeurs (dépendant de la série) [iii]
- Série raccourcie avec figurations groupées [iv]
- Série harmonique avec grpt. temps libre [v]
- Série registre dissolvant tout autre grpt. sériel (à l'origine)"

Both published Formants demonstrate elegant solutions to the problem of formal integration, the four sections of "Trope" with their spiral format reflecting a circular row structure, whilst the overall shape of "Constellation" mirrors its revolving segmentation of the row into six cells.⁴ The purpose of this article is to trace the evolution of "Trope" from its serial origins, as described in *Penser la musique aujourd'hui*, ⁵ to the final version.

The first stage in this process was to convert the four circular groups of rows into *squelettes*, labelled α β γ δ . (It is interesting to note in passing that the titles for the sections, "Texte", "Parenthèse", "Commentaire" and "Glose", respectively, were only added at a late stage, prior to publication.) In addition to pencil sketches, Boulez made a pen copy of the four *squelettes*, adding dynamic, agogic, and tempo indications – in effect, a performable version. Already, the essential characteristics of each section are present, the palindromic severity of β being offset by the more dynamic form of γ , although there is as yet no indication that either section is to include parenthetical commentaries. The segmentations of the row are indicated by square brackets, highlighted in colour in the original – red for the single notes, black for the three-note groups, and alternating blue and green ink for the four-note groups.

A hastily jotted *aide-mémoire*, in badly faded pencil, sketches the compositional means through which these miniature "formants" are to be evolved into the four sections of "Trope"⁷:

"αβγδ

4 squelettes

ad libitum dans 4 dans l'ordre

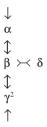
 α = squelette et champs en même temps

 β = squelette et champs séparé note par note

γ = squelette et champs ou séparé ou creux

 δ = squelette en creux (sans les notes)"

The developments, then, are to be characterised by their divergent approaches to the *squelettes*. Thus α will involve simultaneous statements of the *squelette* and related *champs* – Boulez's term for the labyrinth of serial commentaries he intends to exploit – whilst the second section, β , will separate the commentaries from the basic skeleton. These descriptions correspond precisely to the formal plans of "Texte" and "Parenthèse". The two remaining sections, γ ("Commentaire") and δ ("Glose"), propose a more complex relationship between the *squelette* and possible developments, separated or "hollow" at the same time (γ), and finally the *squelette* disappearing altogether in its original form (δ). Underneath the above sketch, a revealing jotting brackets β and δ together, affirming the underlying unity which exists between the larger design and the basic segmentation of the row as described in *Penser la musique aujourd'hui*. This connection is made explicit by the comment, "dans n'importe quel ordre circulaire", which is followed by a sketch closely ressembling the published format of "Trope"8:



Detailed drafts for "Trope" occupy five large sheets of manuscript, those for "Commentaire" extending to two sheets. In each case, the pencil sketches are preceded by a pencil draft of the squelette, to which are added letters cataloguing the rows to be employed for the champs. These are readily identified from Boulez's table of row transpositions for "Trope" – A to L for the twelve prime forms, and M to X for the inversions (the labelling follows the serial ordering of the transpositions: thus, A begins on E-natural, B on Fnatural, C on B-natural, etc.). The comparatively simple textures of "Texte" illustrate the serial principles employed throughout "Trope". The mechanics of the process are that for each row of the champs, the notes of the squelette group which it accompanies are omitted from the commentary: for example, the opening group of the squelette consists of four pitches, E-natural, Fnatural, B-natural, and F-sharp, which are omitted from the two rows, U and W, forming the commentary (hence the bracketing of these notes in Example 1, which places the annotated score of the opening of "Texte" above the squelette and the relevant row transpositions). At first sight, the choice of material for the champs seems arbitrary: surely any two rows could be used in combination? Closer examination reveals the serial convergences which govern Boulez's choices. Of all the available twenty-four transpositions, only rows U and W contain the pitches of the *squelette* group within their four-note

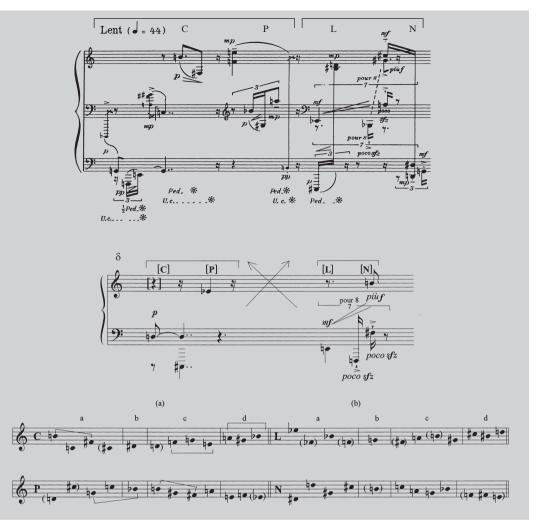


Example 1: Pierre Boulez, Third Sonata for piano (1955–57; rev. 1963), "Formant 2 – Trope", opening of "Texte": extract from the published score (© Universal Edition A.G., Vienna), transcription of the *squelette*, and the relevant row transpositions.

cells, arranged in a complementary configuration. Throughout "Texte", the *champs* are deployed in such a way as to complement and develop the pitch relationships already inherent in the *squelette*. Thus the four single-note cells of the *squelette* consist of the pitches G-sharp and D-natural, a tritonal hinge which determines the structure of the section. An examination of the *champs* for each of these single notes reveals their relationship to the four row transpositions on which the *squelette* is based:

squelette	champs
A	Q
Q	A
G	V
V	G

As the composition proceeded, so the relationship between the original squelette and its elaboration into the four sections of "Trope" became increasingly subtle. In "Commentaire", the *squelette* is folded within a series of commentaries, which at times obliterate the original pitches entirely, whilst at the same time forming a framework for a secondary series of parenthetical insertions. Most enigmatic of all are the compositional processes of "Glose", which have so far received scant analytical examination. As with the other sections, the available sketches are notated on a twenty-eight stave sheet. However, unlike "Commentaire", where the two pages are on the whole clearly ordered into a chronological sequence of sketches above which are placed the relevant row charts, those for "Glose" present a much more haphazard appearance with no obvious sense of progression. This, together with the presence of two pencil drafts for the squelette, suggests that the composition of this section was particularly problematic. When the sketches are identified, and arranged in order, they provide some significant insights into the genesis of the final version. My Example 2 shows the opening of "Glose", with the *squelette* and *champs* placed underneath (the annotations of the rows are taken from the sketches). This juxtaposition provides the key to an understanding of Boulez's description of section δ as "squelette en creux (sans les notes)": the elaboration is to contain all the available chromatic notes except the *squelette* pitches. Thus, the opening cell consists of the pitches C-sharp, D-natural, and E-flat, which are omitted from the opening of "Trope". The pitch content is that of rows C and P, selected for the *champs* because they contain the three omitted *squelette* notes in sequence. This simple concept of a "hollow" realisation of the squelette explains the otherwise puzzling appearance of clusters in "Glose": the passages correspond to the appearance of single-note cells in the *squelette*. The first of these is shown in Example 2 (group c), which also reveals a particularly intricate permutation of the two rows, I and C, which form the *champs*. One further compositional finesse may be observed: the squelette, far from being totally absent, is a constant presence in the background. Analysis of the first two groups reveals that the opening cell of the *squelette* is incorporated in the champs of group two, and conversely, the second squelette cell is clearly present in its original register within the opening group of "Glose". Such cross references occur throughout the section and are a microcosm of the design of the Third Sonata, the five Formants of which form a gigantic cross, with "Constellation" at its centre. On another level, the spiral, which constitutes the form of "Trope", mirrors the concept of revolving Formants around a nucleus.



Example 2: Pierre Boulez, Third Sonata for piano (1955–57; rev. 1963), "Formant 2 – Trope", opening of "Glose": extract from the published score (© Universal Edition A.G., Vienna), transcription of the *squelette*, and the relevant row transpositions.

The Sonata in its present unfinished state affords a tantalising glimpse of this balanced formal plan, with the still fragmentary "Strophe" forming a counterpart to "Trope" – both contain four sections and employ clusters, an unusual texture in Boulez's music. Similarly, the unfinished final movement, "Séquence", was conceived as a coda to the work, balancing the terse opening "Antiphonie". The subsequent expansion of this first Formant calls into question the five-movement design of the Third Sonata, and makes any eventual realisation problematic, at least of the work in its original proportions. Until such time as this problem is resolved, one must await publication

of the completed sections of "Antiphonie". This would make available an additional Formant of comparable length to that of "Trope", and thus provide a provisional solution to the issue of formal balance in a masterpiece which stands at the crossroads of Boulez's development.

- 1 Published in: Heinrich Strobel, "Verehrter Meister, lieber Freund ...", edited by Ingeborg Schatz in collaboration with Hilde Strobel, Stuttgart/Zürich 1977, pp. 22–26.
- 2 First published in German as "Zu meiner dritten Klaviersonate", trans. Heinz Klaus Metzger, in: *Darmstädter Beiträge zur Neuen Musik*, vol. 3, edited by Wolfgang Steinecke, Mainz 1960, pp. 27–40.
- 3 Mappe H2a, 2. M. Robert Piencikowski gave me practical help in transcribing this and other examples, and gave me valued advice throughout my project.
- 4 For a discussion of "Constellation" in relation to the source material, see Rosângela Pereira de Tugny, *La Troisième sonate de Pierre Boulez*, in: *Dissonanz/Dissonance*, no. 36 (1993), pp. 4–7. Also, *Le Piano et les dés*, diss. Université de Tours 1996.
- 5 First published in German as *Musikdenken heute 1 (Darmstädter Beiträge zur Neuen Musik*, vol. 5), trans. Josef Häusler and Pierre Stoll, Mainz 1963. French edition: *Penser la musique aujourd'hui*, Geneva, 1963, see pp. 81–83.
- 6 Mappe H2a, 4.
- 7 Mappe H2a, 1.
- 8 Mappe H2c, 1.
- 9 Mappe H2c, 2.