

Analysis of Morton Feldman's

String Quartet No. 2 (1983)

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1.1 Introduction

1.1.1 Extremity, time and space

Feldman's over 6 hours long *String Quartet No. 2* from 1983¹, can be placed in that category of works in modern classical composition, and in art in general, that for widely different reasons conjure up the word 'extremity'. An extremity that challenges both the performer, the audience as well as the settings. In works such as Cage's *4' 33* (1952) it is "the silence" or the absence of determined music that works as an extreme parameter, in La Monte Young's *Trio for strings* (1958) it is the monotony, in Boulez it is the strict determinism that determines almost all parameters in, for example, *Structures* (Book 1 from 1951-52), and in Joyce it is the complexity of words and semantics in *Finnegans Wake* (1939). In Feldman's second string quartet, it is the duration of the work that challenges. The extreme parameter is in this case time. This is not to say that Feldman with this work primarily intended a direct polemic about time as a phenomenon in score music, but when you are confronted with this work, it is this 'time phenomenon' that evokes astonishment. This 'time phenomenon' appears partly as extreme duration, but also as an interesting psychological phenomenon. In Feldman's second quartet the listener experiences that different sound-passages – which pass in time – become more like static spaces outside of time!² This phenomenon – sounds in time transformed into space – is a phenomenon that, in the light of concrete notated sound, comes into existence in the consciousness of the listener³. However, this analysis has its focus on the concrete notated sounds of the work. It will show – in a very concrete and analytic way – how

¹ The Flux Quartet version from 2001 lasts 6 hours, 7 minutes and 7 seconds.

² "Architecture as frozen music" is here changed to: 'architectural music'!

³ A quite typical and old understanding of painting/sculpture as space-art and music/poetry as time-art demands a more differentiated discussion, which is not to be undertaken in this text.

repetition and affinity are the primarily building blocks that Feldman uses to construct this his *String Quartet No. 2*.

1.1.2 First introduction and detailed cataloguing

The score of Feldman's *String Quartet No. 2* consists of 124 pages. Each page is divided into 3 systems and each system contains 9 measures. The work is orchestrated for a standard string quartet; two violins, one viola and one cello.

A first reading of the score causes a vague feeling of an enormous number of differentiated structures or fields with a repetitive character. A more profound analysis though reveals a work containing a relatively large, but comprehensible number of fields of differentiated character. *Supplement 1* is a detailed catalogue of all field-characters in the quartet. In this catalogue I have – in a very nuanced way – identified every field from page 1 to page 124. I have furthermore registered in what way the different fields are repeated each time they appear at different places in the score.

With the results of *Supplement 1* it has been possible in *Supplement 2* to catalogue more general field categories such as ‘motifs’, ‘chords’, ‘patterns’ and ‘other fields’, and it has been possible to make statistics of their frequency. *Supplement 2* reveals that we are able to distinguish 68 different field-characters in the quartet as a whole. But each time a certain field character appears at a new place in the score it is possible that it has been transformed both in sound and view.

1.2 Repetition and affinity

1.2.1 Repetition as method in music

The phenomenon or method ‘repetition’ is a means that musicians or composers to very different degrees and in very different ways either use or directly try to avoid. Repetition is used as an all-important parameter and method in the musical style which - quite typically and relatively misleadingly – is called ‘minimalism’.⁴ I will therefore rather use the term ‘repetitive music’, when we are speaking about Feldman's late works⁵ and especially about his second string quartet.

1.2.2 *Supplement 1* as a tool for identification of repetitions

At our first, quick reading of the score we register quite obviously that Feldman to an extended degree repeats measures via formal repeats and the specification of how many times the measure(s) are to be repeated.

The aim of our second look is to know *if*, and if so, exactly *how*, Feldman is repeating all the field-characters of the work – characters that we at first impression and by listening know have some kind of affinity. For this purpose *Supplement 1* can be used as a detailed catalogue of all these field-characters and of their reciprocal affinity. The three columns farthest to the right in the catalogue show us – via page-references, abbreviations and

⁴ A discussion about the term ‘minimalism’ is not to be undertaken here. Musicians like La Monte Young, Terry Riley, Steve Reich, Phillip Glass, John Adams (and Morton Feldman) are thought typically to be exponents of minimalism in music.

⁵ In a very rough view we can split up Feldman's total oeuvre into 3 periods: his first period with graphical notation in the 1950s, his second period with indeterminate durations in the 1960s and his third period with totally determinate notation in the 1970s and 1980s.

symbols⁶ – how it is possible by the occurrence of each new field character: 1) to identify which other field-character it is a repeat of; cp the column ‘a “repetition” of page’ and 2) to form a general view of what kind of new characteristics characterize the repetition, and exactly how the repetition is made; cp the column ‘what are the changes’. For example, on page 3 in *Supplement 1* we can read horizontally that the field-character ‘4-tonepattern arco/pizz’ that we are able to observe in the third system of the score’s page 7 (7.3), is related to/reminds you of (~) that field-character we already saw on page 5 in the score. Furthermore, horizontal reading tells us that ‘page 7.3’ differs from the related ‘page 5’ by being made up of other tones and by containing pizzicato parts (‘d.t./pizz’).⁷

1.2.3 Four different methods of repetition in *String Quartet No. 2*

To help gain a general view of repetitions of field-characters in this string quartet, I have identified four different ways in which Feldman is fond of repeating and/or varying characters.

From among the 68 field-characters of the work, we are able to identify 18 characters that only occur once. The remaining 50 occur between 2 and 15 times⁸. From here it is interesting to find out in what different ways the continuously appearing occurrences are repeated. As can be seen in *Supplement 1*, I distinguish four different types of repetition; each one has been given a symbol:

⁶ Page 2 in *Supplement 1* is an overview and explanation of the many abbreviations and symbols in the catalogue.

⁷ Try for yourself some readings like this in *Supplement 1*. First you pick out a field-character farthest to the left in the catalogue and from here you read horizontally.

⁸ Cp *Supplement 2*.

- | | | |
|--|---------|-----|
| 1) an identical repetition of a field-character | symbol: | = |
| 2) an almost-identical repetition of a field-character | symbol: | (=) |
| 3) a transformation of a field-character | symbol: | ~/= |
| 4) a related repetition of a field-character | symbol: | ~ |

From *Supplement 1* we can count up, that from among the total 250 occurrences in the string quartet, we are able to find 10 occurrences that have been given the term/symbol 'identical repetition' (symbol: =). For example, we can read that 'page 19.2' in the score is totally identical with 'page 10.1'.⁹

From the remaining three types of repetition that Feldman uses, I find it especially important to give some examples on how the method 'transformation' is used in the work. In *Supplement 1* we are able to see that 23 occurrences in total have been given the term/symbol 'transformation' (symbol: ~/=).

A transformation of a field-character can be done in several different ways: 'Page 13.1' is a transformation of 'page 10.1'. In this case the whole field-character 'Theme-frag. w. fourth-motif' is transposed down $\frac{1}{2}$ a tone compared to the field-character as seen on 'page 10.1'. In addition, some changes have been made in relation to which instruments play which parts.

⁹ Try for yourself to find the remaining 9 'identical repetitions'. To keep the record straight it has to be mentioned that the repetitive occurrences, where only the dynamic differs in the repetition (d.d.), have also been categorized as 'identical repetitions'.

Another method of transformation could be ‘changed order of systems’ (‘cos’), as can be seen at ‘page 79’. In this case the order of systems has been changed compared to that seen on ‘page 72’: Page 79.1 is identical with page 72.3, 79.2 is identical with 72.2, and 79.3 is identical with 72.1. This is quite a simple way of both repeating and transforming at the same time.

A transformation which is relatively more complex, is seen on ‘page 118’. ‘Page 118’ is – system by system – a kind of retrograde¹⁰ of ‘page 77’. We are able to see that ‘page 118.1’ is a ”retrograde” of page 77.1, 118.2 is a ”retrograde” of 77.2, and 118.3 is a ”retrograde” of 77.3.

1.3 Field-categories

1.3.1 Field-categories and their frequency

Given below - *Catalogue 1* - is a summary of *Supplement 2*. The catalogue shows us the total number of field-categories and their frequency in the string quartet.

Catalogue 1. Field-categories and their frequency

Field-categories	Total times the field-category occurs in the work	Total number of measures (repetitions are included!)
Motifs	58	1154
1-tonemotifs	2	26
2-tonemotifs	27	678
3-tonemotifs	8	96
4-tonemotifs	8	37
Various motifs (“themes”)	13	317

¹⁰ In this analysis ‘retrograde’ means repeating backwards measure by measure – not note by note! It is therefore not the content of the measures that has been written backwards. Therefore ‘retrograde’ does not refer to a strict backwards repeating of notes as in dodecaphonic music with eg row ‘0’ and ‘R0’.

Chords	80	2846
Patterns	101	3483
2-tonepatterns	41	1545
3-tonepatterns	6	374
4-tonepatterns	37	1055
5 & 6-tonepatterns	13	422
Other patterns	4	87
Other fields	11	146

From *Catalogue 1* we can see that the string quartet in a general view is made up of 3 different field-categories; ‘motifs’, ‘chords’ and ‘patterns’¹¹. These three categories will briefly be looked at in the following section.

1.3.2 Three field-categories; Motifs, chords and patterns

We are able to read in the catalogue above that the field-category ‘motifs’ occurs 58 times in the whole work. This gives the field-category ‘motifs’ a total representation of 1154 measures in all, approximately 1/7 of the total measures of the work¹². Furthermore, in this field-category the 2-tonemotifs occur most frequently.

The field-category ‘chords’ occurs 80 times in the work and in total has a representation of 2846 measures, approximately 3/7 of the whole work's 7629 measures. In this chord-category it is ‘repetitive chords w. post-notes’ that occur most frequently.

¹¹ The category ‘other fields’, whose field-characters only constitutes a small part of the work, is here left out for the sake of clarity.

¹² The work contains 7629 measures in all. This number is with all repetitions included.

‘Patterns’ is the most frequent field-category in the work. ‘Patterns’ occurs 101 times and has an extent of 3483 measures, almost half of the total measures of the work! In this category it is especially 2 and 4-tonepatterns that occur most frequently.

1.4 Field-characters

1.4.1 Motifs

The two examples shown below; *Ex. 1a and b*, exemplify two concise and frequently occurring field-characters in the field-category ‘motifs’. *Ex. 1a* is taken from the category ‘various motifs’, and *Ex. 1b* is from the category ‘2-tonemotifs’¹³.

Ex. 1a and b Motifs

The image displays two musical examples, Ex. 1a and Ex. 1b, across four staves: Violin I, Violin II, Viola, and Cello. The score is divided into two systems. The first system, labeled 'Ex. 1a. Repetitive lyrical "theme" motif w. desc. bass-ostinato Page 22, 1 system, measure 1-4.', shows a melodic line in the upper staves and a descending bass-ostinato in the lower staves. The second system, labeled 'Ex. 1b. 2-tone motifs w. pizzicato-accompaniment Page 65, 1 system, measure 1-4.', shows a two-note motif in the upper staves and a pizzicato accompaniment in the lower staves. Dynamics include *ppp* and *ord.* (ordinario). Performance instructions include 'Messa 2nd up' and 'Pizz-accomp.'

Ex. 1a shows the germ of, and is an example of, that field-character which I have named ‘repetitive lyrical “theme”-motif w. descending bass-ostinato’ – a very concise character, which occurs 6 times in the work in total¹⁴.

¹³ Cp Supplement 2.

Violin I's repeating three tones (db'' – fes' – gb'') constitute that motif, that I think can best be described as a lyrical "theme"-motif. The violin-motif seems strongly lyrical because of two emotional but quite calm interval-movements; an interval-movement of a major 6th down (db'' – fes') followed by an interval-movement of a major 9th up (fes' – gb''). Together with the repetitive three-tone descending bass-ostinato of the cello (h – d – A), which, synchronous with violin I, also contains an interval-movement of a major 6th down (h – d), this field-character seems to me the most typically beautiful, transparent and calm character of the whole work. This peace (tranquility) is especially constituted by the harmonic pattern which is seen in measure 3, a pattern moving from the chord B^{-add9} to DΔ⁹ to A6^{add9}, a pattern that subsequently develops in a varied form.

These three elements; theme-motif, bass-ostinato and harmony constitute the field-character 'repetitive lyrical "theme"-motif w. descending bass-ostinato'. When this character occurs many times in both related and transformed versions, it has the effect of a peaceful breathing space among the many diverging field-characters of the work.

Ex. 1b shows an example of another field-character from the field-category 'motifs'. The field-character '2-tonemotifs w. pizzicato-accompaniment' occurs seven times in total in the work, partly in related versions, but most often as almost-identical repetitions.¹⁵

¹⁴ Cp *Supplement 1, Supplement 2* or the score p. 22, 52.1, 72, 79, 87.2-3, 105.

¹⁵ Cp *Supplement 1, Supplement 2* or the score p. 65, 78.3, 89, 103, 108, 111, 115.3

In *Ex. 1b* we can see this field-character constituted of repetitive major 2nd motifs in violin I, violin II and viola and we can see a repetitive 1-tone pizzicato-“accompaniment” in the cello. The 2-tonemotifs are both rhythmically and intervallically synchronous, but the tones and the direction of movement diverge. While violin I and II are repeating the interval ‘a major second up’, the viola is repeating the interval ‘a major second down’. The cello accompanies repeating a pizzicato post-note on the tone deses’ (=c’). The total expression seems relatively relaxed, but the changing meters leave their stamps on the field-character in quite an affective diverging manner – the odd meters “knock over” the peace in a very gentle way.

1.4.2 Chords

From the 14 field-characters of the field-category ‘chords’, I have found it essential to present two different characters, each very concise. *Ex. 2a and b* given below show representative examples from respectively; ‘synchronous chords w. parts of pauses’ and ‘repetitive chords w. post-notes’.

Ex. 2a and b Chords

Ex. 2a. Synchronous chords w. parts of pauses
Page 70, 1. system, measure 1-6.

Ex. 2b. Repetitive chords w. post-notes
Page 15, 1. system, measure 1-4.

The total ambitus of the cluster-field, from Bb (incl.) to d' (excl. octava.)

Violin I

Violin II

Viola

Cello

Ex. 2a is an example of the field-character ‘synchronous chords w. parts of pauses’, an example which – both tonally and structurally – very finely represents the character as it is seen on page 70 and 71 in the score. ‘Synchronous chords w. parts of pauses’ occurs 8 times in the work in total, either in related or transformed versions.

In the score this field-character is quite remarkable as a sheet of music that is marked by pauses; each part of chords – whose meter is changing continuously – is separated by a pause-measure whose meter is also varied. By listening and by taking a closer look at the score, we become aware that it is not the silence of the pauses that attracts our attention.

For the fact is that the parts of pauses pass in a period of approximately one to two seconds¹⁶.

¹⁶ The number of beats per minute through the work is M.M. = 63-66 and the meter for the parts of pauses changes between 3/16 – 1/2.

In this version of the field-character the tonal circulation is primarily being made around a cluster-field constituted by 6 tones; the tones a – d. As we are able to see in *Ex. 2a* this cluster-field is scattered in register, and we can see that the tones of the cluster-field in each new part, partly circulates between the instruments and partly changes in register. We can read from *Ex. 2a*, that the total ambitus of the cluster-field spans from the tone Bb (in the cello, measure 4) to the tone d''' (harmonic in violin I, measure 2, and in the viola, measure 4). This is the same as an ambitus of 3 octaves and a major 3rd.

Ex. 2b shows a short example of that field-character in the string quartet that takes up the most space. In spite of its “only” 9 occurrences, this character (‘repetitive chords w. post-note’) takes up 907 measures in total, almost 1/8 of the 7629 measures of the whole work! When this comprehensive field-character shows up again and again in the work, it is primarily in related versions, but also sometimes in almost-identical or transformed versions.¹⁷

Sonorously this field-character is seen with both scattered and closely written chords. In *Ex. 2c* given below, I have drawn up a revised, clearer version of that musical notation already seen in *Ex. 2b*. Feldman was fond of using natural and artificial harmonics, and when we are looking at a musical notation with a lot of these harmonics, plus a cello-part notated in a tenor clef, it can be quite difficult to survey the register and the real soundscape. Therefore I have made *Ex. 2c*.

¹⁷ Cp *Supplement 1*, *Supplement 2* or the score p. 15, 19.1, 25.2-3, 26.3-27.2, 52.2-53.3, 61, 68.1, 81-84.2, 120-123

Ex. 2c Revised musical notation

Ex. 2c. Repetitive chords w/ post-notes
Revised version of page 15, 1. system, measure 1-4.

The musical score consists of five staves: Violin I, Violin II, Cello, Viola, and Double Bass. The first three measures (1-3) feature scattered chords with repetitive chords in Violin I. Measure 4 shows a cluster-field in Violin II, Cello, and Viola, with a distant Violin I. The score includes dynamic markings like '3X's' and 'f'.

In *Ex. 2c* above we can see a circulation about the tones h, db, a and ab in the first three measures. In violin II the same db'' is repeated in all 3 (and 4) measures, while tones are being changed about in the remaining parts. In measure 4 we can see a cluster-field containing the tones h', c'' and db'' notated for the cello, viola and violin II. A duodecim (= an octave + a perfect 5th) up from violin II's db'', we can see a g#'' notated for violin I. From this we note a contrast between the scattered chords with a closely lying violin I in measures 1-3, and the closely written cluster-field with a distant violin I in measure 4. Such a continuous alternation between chordal accumulation and scattering, partly from measure to measure, partly between the parts, is a method of orchestration that Feldman very often uses in the many passages with repetitive chords in this work.

1.4.3 Patterns

From the field-category 'patterns', 34 field-characters in all, I have found it essential to present 3 different characters; one from the category '2-tonepatterns' and two from the category '4-tonepatterns'. *Ex. 3a, b and c* given below show representative examples of these three field-characters.

Ex. 3a, b and c Patterns

The image shows a musical score for four instruments: Violin I (Vln I), Violin II (Vln II), Viola (Vla), and Violoncello (Vcl). The score is divided into three systems, each with a title above it:

- System 1:** Ex. 3a. 2-tone pattern, tutti. Polyphony of patterns. Page 41, 3. system, measure 1-2. Annotations: 11X's, 10X's.
- System 2:** Ex. 3b. 4-tone pattern. Chromatic descending. Page 7, 1. system, measure 1-2. Annotations: 13X's, 12X's.
- System 3:** Ex. 3c. 4-tone pattern, circle. Page 33, 1. system, measure 1-2.

Dynamic markings include *ppp* and *ffff*. Performance instructions include *sult.* (sustained), *ord.* (ordered), and *pont.* (ponticello).

In *Ex. 3a* we can see an example of the field-character '2-tone pattern, tutti, polyphony of patterns'. This field-character occurs 7 times in the work, each time primarily repeated in related versions.¹⁸

The field-character seen in *Ex. 3a* is primarily characterized by repetitive two-tone patterns; measure 1 is repeated 11 times, measure 2 is repeated 10 times. Furthermore we can see different sizes of intervals and dissonant tonal polyphony between the parts. In measure 1, it is the interval-sizes 'minor 9th' (vln. I and II) and 'major 7th' (vla. and vcl.). In measure 2 we can see a synthesis of the intervals 'minor 6th' (vln. I), 'minor 3rd' (vln. II), tritone (vla.) and 'a perfect 5th' (vcl.). This polyphony of intervals makes a nice

¹⁸ Cp *Supplement 1, Supplement 2* or the score p. 29.2-3, 38.2-3, 41.2-43.1, 43.2, 45.3, 48.2, 63.2

scraping soundscape, yet not an alarming one, as for example in the field-character ‘tutti, alarm, minor 2nd’.

In *Ex. 3b* we can see an example of the field-character ‘4-tonepattern, chromatic descending’. This field-character occurs 5 times in the work, each time primarily repeated in almost-identical versions.¹⁹

This character is primarily characterized by a fast descending chromatic movement²⁰. We can see that all four string-instruments, both in measure 1 and 2, several times have to play four 32th-notes per half second²¹. Concerning sonority, we can see that– vertically between the parts, which are notated in the same register – a closely packed cluster-field comes into existence on each 32th-note. Actually this field-character could be interpreted as a four-part closely packed cluster that is moved chromatically down very fast and repetitively.

In *Ex. 3c* we can see a 4-tonepattern, characterized by circular structure; it is an example of the field-character ‘4-tonepattern, circle’. This character occurs 6 times in the work, each time primarily in almost-identical repetitions²².

¹⁹ Cp *Supplement 1, Supplement 2* or the score p. 7.1, 39.3, 44.3, 78.1, 80.2

²⁰ The only deviation from the chromatic movement is that major 2nd interval seen between the 2nd and 3rd 16th-note in all parts in measure 2.

²¹ Cp that the number of beats per minute through the work is M.M. = 63-66, and that these two measures are notated in 1/8.

²² Cp *Supplement 1, Supplement 2* or the score p. 33.1, 33.3, 40.1, 43.3, 48.1, 57.1

In measure 1, the “circle-movement” is notated for violin I via the tones his’ – ais’ – a’ – aisis’ (= c’’ – ais’ – a’ – b’), and in measure 2 this pattern occurs in unison (but notated differently) in violin I and II. *Ex. 3c* is used as an example, because of its circular conciseness – a characteristic that becomes most clear though by an auditive approach to what is notated.

1.5 Sonority, metric, dynamic²³

1.5.1 Sonority

The sonority of all four instruments is – all in all – strongly characterized by that special effect that is heard when string-instruments are muted. Feldman has chosen to use this effect through the whole string quartet. To use a mute on a string instrument changes and extends the timbre of the instrument very radically, and when listening to the string quartet one immediately notices that the sonority is significantly veiled and maybe a little sharp or metallic. In addition to this continuous mute-effect, and more conventional arco-parts, we are furthermore able to observe that Feldman is fond of letting the sonority of the instruments be characterized by pizzicato, sul tasto, sul ponticello plus natural and artificial harmonics.

1.5.2 Tempo and rhythmic

The continuous tempo of the work is M.M = 63-66, but because of the horizontally changing meters through the whole work – meters that furthermore also change

²³ This chapter should be read only as a very short and relatively superficial introduction.

vertically²⁴ – we get the feeling of a work with several tempi, rather than one of a static tempo. The rhythmical aspect is complicated further partly by use of a wide range of meters, from 1/8 to 11/4, and partly because of a lot of differentiated rhythmical displacements.²⁵

The work is also very polyrhythmic. From the very start, on page 1 in the score, we can see a polyrhythmic structure: 2 towards 3. All in all the continuously changing meters and the countless complex rhythmical structures, hugely complicate the practice of performance.

1.5.3 Dynamic/volume

The dynamic is written from pppppp-fff, but is mostly held down in pppppp and ppp. It is furthermore mostly kept vertically homogeneous, though in some passages there is a dynamic vertical heterogeneity²⁶. On page 76.3 the very last dynamic indication of the score is given. From this page on to the end of the work the dynamic is held at pppppp.

1.6 Summary

With a duration of more than 6 hours *String Quartet No. 2* by Morton Feldman can very well be described as coming within a multi-faceted fan of extreme works of art. The work is significant, not only because of its extreme linear timespan, but also because of its transformation of time into space.

²⁴ Cp the score p. 32.2-3

²⁵ Cp the score p. 5

²⁶ Cp the score p. 47.1-2

At first the work seems unanalysable because of its extreme duration and its vast number of differentiated repetitive structures or fields. A more profound analysis though reveals a work containing a relatively large, but comprehensible number of fields of differentiated character. In this way we have registered three different field-categories – respectively motifs, chords and patterns – under which the 68 different field-characters in the work can be categorized and catalogued. For example, we have identified motifs with a strong lyrical character and motifs with accompaniment of pizzicato, chords with parts of pauses and chords with repetitive post-notes, chords that continuously alternate between chordal accumulation and scattering, and clusterchords with a very compressed structure. Furthermore, we have identified 2-tonepatterns that in a clash have made intervallic polyphony, patterns characterized by their fast moving descending chromatic movements and patterns characterized by a circular structure.

A very dominant characteristic of this work is definitely its repetitive character.

Obviously repetition is used through the whole work via repeats, but at a more complex level of composition, we have observed repetition as a way of partly repeating in a varied way, partly as a more radical transformation of field-characters. In this way we have found both identical, almost-identical and related repetitions, but we also found transformations through which the field-characters were changed via transposition, changed order of systems and retrogrades.

All in all we are able to conclude that the material of *String Quartet No. 2* is strongly differentiated and voluminous, though at the same time strongly characterized by affinity.

Even though Feldman's most frequent method of repetition is related repetitions, I have found it interesting and very important to demonstrate the character, presence and frequency partly of the totally identical, but also of almost-identical and transformed repetitions. Hopefully, the observations presented here may inspire future discussions on Feldman-related subjects.

Supplement 1

Catalogue of all field-characters in Feldman's String Quartet No. 2

Specification of symbols and abbreviations in *Supplement 1* (catalogue of all field-characters)

<u>Symbol/abbreviation</u>	<u>Meaning</u>
=	identical with
(=)	almost-identical with
~/=	transformation of
~	related to/reminds you of
()	what is in a bracket is not an outstanding change
3.2-3	page 3, system 2 to 3
ca	more calm
cos	changed order of systems
d.a.	different accompaniment
d.d.	different dynamic
d.i.	different instrument(s)
d.int.	different intervals
d.r.	different rhythmic
d.s.	different sound (klang/sonority)
d.t.	different tones
frag	fragment of
ict	instruments have exchanged their tones
int	interval
pau	pauses/rests
pizz	pizzicato
-pizz	without pizzicato
R	retrograde*
r1	retrograde of system 1
rep	repetitive
S	system (n.b. there are 3 systems on a page)
s.t.-mcp	same tones – measures have changed places
tr	transposed
var	variation

*In this analysis ‘retrograde’ means repeating backwards measure by measure – not note by note! It is therefore not the content of the measures that has been written backwards. When e.g. page 38, system 3 (38.3) is a retrograde transformation of page 29.3 it is hereby meant that *what* is measure 9 on p.29.3 is turned into measure 1 on p. 38.3. Measure 8 turns into measure 2, 7 into 3 etc. In this analysis ‘retrograde’ doesn’t refer to a strict backwards repeating of notes as in dodecaphonic music with e.g. row ‘0’ and ‘R0’.

Name of the field-character	Tones/intervals/characterization	Page and system in score	A “repetition” of page:	What are the changes:
Repetitive cluster	e/eb/d-c# (Synchronous)	1-2		
3-tonepizz-pattern	c#-e-d# Asynchronous	3.2-3		
Chords	Clusters Synchronous	3.3-4.1		
4-tonepatterns divided	Asynchronous Pattern is divided betw.instr.	5		
Repetitive chords	Asynchronous	6		
4-tonepatterns chromatic down	Descending chromatics Clusterharmonies Synchronous	7.1		
Arpeggio-pattern w. pizz-pre-note	Int.: Huge jumps Asynchronous	7.2		
4-tonepattern arco/pizz	Asynchronous Pattern divided	7.3	~5	d.t./pizz
Chords	Int. 11/clusters A/synchronous	8		
Rep. 2tonepattern	eb-c# vcl	9		
Themefrag. w. fourth-motif	Int.: Fourths	10.1		
Rep. cluster	c/c#/d/eb (Synchronous)	10.2	~1-2	d.t./pizz/ca.
Chords	e.g.: clusters Synchronous	10.3-11.2		
Chords	Clusters Asynchronous	11.3		
4-tonepatterns chromatic up	Ascending chromatics In unison/synchr.	12.1-2		
Chords synchr./pauses	e.g.: clusters Synchronous	12.3	~10.3-11.2	d.t./pau
Themefrag. w. fourth-motif	Int.: Fourths	13.1	~/=10.1	transposed ½ tone down/(d.i.)
Rep. cluster	Synchronous	13.2	~1-2	d.t./-pizz/d.r.

Name of the field-character	Tones/intervals/ characterization	Page and system in score	A “repetition” of page:	What are the changes:
Frag. from 4-tonepattern chrom.	Ascending chromatic In unison	13.3	~12.1	var/d.i. in vla/vcl
Rep. chord	(Cluster) Asynchronous	13.3-14.1	~3.3-4.1	d.t./d.r.
2-tone theme-motif	Int. 8/10	14.2-3		
Rep. chords w. post-notes	(Synchronous)	15		
Rep. 2-tonepattern	eb-c# vcl/vla	16.1-2	(=)9	var/(d.t.)
1-tonemotif	in vcl	16.3		
Pizz-chords	Synchronous	17		
Chords	Int. 11/clusters A/synchronous	18	~8	d.t./d.r.
Rep. chords w. post-notes	(Synchronous)	19.1	~15	d.t./d.d.
Themefrag. w. fourth-motif	Int.: Fourths	19.2	=10.1	
Chords	e.g.: clusters Synchronous	19.3	(=)10.3	d.d.
Rep. 3-tonemotif w. pizz-gliss accompaniment	d#-e-f	20.1		
Chords	e.g.: clusters Synchronous	20.2	(=)10.3	ict
Rep. 2-tonepattern	ab-bb vcl/vla	20.3	~9	d.t./d.a.
Rep. 3-tonemotif w. pizz-gliss accomp.	g#-a-bb	21.1	~/=20.1	transposed down a fifth/(var)
Rep. 2-tonepattern	ab-bb Tutti A/synchronous	21.2-3	~9	d.t./d.a.
Rep. lyrical thememotif	Motif: db-e-gb vl 1 Chords: Bsus4, B9, BΔ9, B7	22		
Themefrag. w. fourth-motif	Int.: Fourths	23.1	(=)10.1	d.d.
1-tonemotif	d Tutti A/synchronous	23.2	~16.3	d.t./d.a.
Chords	e.g.: int. 12 Synchronous	23.3		

Name of the field-character	Tones/intervals/characterization	Page and system in score	A “repetition” of page:	What are the changes:
2-tonemotif	Int. 5-7-8-10	24.1	(=)14.2-3	frag/(var)
Rep. chord	Asynchronous	24.2	~6	d.t.
Rep. 2-tonepattern Alarm	Polyphony:tutti int. 1 Synchronous	24.3	~9	d.t./d.a.
Fragments w. pauses, (solo-parts)		25.1		
Rep. chords w. post-notes	(Synchronous)	25.2-3	~/=15	s.t.-mcp
Rep. 2-tonepatterns	Int. 1/2/3 Asynchronous	26.1	~24.3	d.t./d.a.
Rep. 3-tonemotif	a-ab-g	26.1-2	~20.1	d.t./d.a.
Rep. 2-tonepatterns	Polyphony:tutti int. 1 Synchronous	26.2-3	~/=24.3	R
Rep. chords w. post-notes	(Synchronous)	26.3-27.2	~15	(d.t)
Rep. 3-tonemotif w. pizz-gliss accomp.	g#-a-bb	27.2	~/=20.1	transposed down a fifth/(var)/(ict)
Rep. 2-tonepattern	eb-c# vcl	27.3	(=)9	frag(9.2)/var(d.r.)
Rep. chord	Asynchronous	28.1	~/=24.2	s.t.-mcp
2-tone theme-motif	Int. 8/10	28.2	(=)14.2-3	var/frag
4-tonepatterns chromatic up	Ascending chromatics In unison/synchr.	28.3	(=)12.1-2	var/(ict)
Rep. 4- tonepizzpattern	e/eb/c#/d Synchronous/ polyphone	29.1		
Rep. 2-tonepattern	Polyphony:tutti int. 1/2/3/4/8/10 Synchronous	29.2-3	~24.3	d.t./d.a./d.int.
Rep. 2-tonepatterns	Int. 1/2/3/4/5/6/8	30.1-31.1	Combination of: ~24.3	d.t./d.a./d.int.
3-tonepizzpattern	e.g.: a-h-db		~3.2-3	(d.t.)/(d.i.)
Rep. chord	Cluster Synchronous	31.1	~3.3-4.1	d.t./rep/ without quiet parts
Rep. cluster	Asynchronous	31.2	~1-2	d.t./d.r./d.a.
Frag. from 4- tonepattern chrom.	Ascending chromatic In unison	31.2	~12.1	var./d.i.

Name of the field-character	Tones/intervals/characterization	Page and system in score	A “repetition” of page:	What are the changes:
Themefrag. w. fourth-motif	Int.: Fourths	31.3	~/=10.1	transposed ½ tone down/ict
Rep. cluster	a/bb/h/c Asynchronous	32.1		
Rep. cluster	a/bb/h/c Asynchronous	32.2-32.3	~32.1	d.r./-pizz/d.d.
4-tonepattern Circle	c-a#-a-h vl 1+2 (In unison)	33.1		
6-tonepattern	e-d-f-eb-gb-f (In unison)	33.2		
4-tonemotif	e-d-f#-h vl 1	33.2		
4-tonepattern Circle	c-a#-a-h (In unison)	33.3	(=)33.1	frag
6-tonepattern		33.3	(=)33.2	frag
4-tonemotif	gb-d-f#-h	33.3	(=)33.2	var
Rep. 2-tonepatterns	Int. 1/2/3/4/ 6/7/8/10	34	Combination of: ~24.3 ~30.1-31.1	d.t./d.int.
3-tone(pizz)pattern	e.g.: a-h-db			(d.t.)/d.i.
Rep. 3-tonepattern chrom/compressed	Chrom ascend. Polyphony:tutti (synchronous)	35.1		
Pizz bassfig. “freejazz”	Int. 1/2/10/11 f/f#/g vcl	35.2-3		
Rep. pizzchords	A/synchronous	36.1		
Chords Brutal	Int. 1/10/11 Synchronous	36.2-3	~3.3-4.1	d.t./without quiet parts
Pizzchords	e.g.: int. 11 Synchronous	37	~/=17	R r3, r1, r2
Rep. 3-tonemotif w. pizz-gliss accomp.	d#-e-f	38.1	~/=20.1	R (also the vla chord is a retrograde!)
Rep. 2-tonepatterns	Polyphony: tutti Int. 1/2/3/4/ (5)/8/10 (A)/Synchronous	38.2-3	~24.3 ~/=29.3	d.t./d.int. R
Rep. 4-tonepattern		39.1	(=)29.1	var/ict
Rhythmical diverging (4)tone pattern /Divided	e-d# / c#-d	39.1-2		
4-tonepatterns chrom down		39.3	(=)7.1	ict
4-tonemotif		40.1	=33.2	d.d.
6-tonepattern		40.1	=33.2	frag
4-tonepattern circle		40.1	=33.1	frag

Name of the field-character	Tones/intervals/characterization	Page and system in score	A “repetition” of page:	What are the changes:
4-tonemotif		40.1	(=)33.2	ict
Rep. 2-tonepatterns	Int. 2, tutti (c-d / c#-eb) A/Synchronous	40.2-3	~24.3	d.int.
2-tonemotif	Int. 8-10	41.1	~14.2-3	var/frag
Rep. 2-tonepatterns	Polyphony: tutti Int. 1/2/3/4/ 6/7/8/10/11 Synchronous	41.2-43.1	~24.3	d.t./d.int.
Rythm.diverging (4)tone pattern Divided	ab-bb-ab / gb	43.2	39.1-2	d.t./d.r.
Rep. 2-tonepatterns	Polyphony: tutti Int. 1-2 Synchronous	43.2	~24.3	d.t./d.int.
6-tonepattern		43.3	=33.2	frag
4-tonepattern circle		43.3	(=)33.1	frag
4-tonemotif		43.3	=33.2	d.d.
Rep. 2-tonepatterns	Int. 2, tutti (c-d/c#-eb) Synchronous	43.3	~24.3	d.int.
2-tonemotif w. synchr. chords	Motif-int.: 1-10- 11	43.3-44.1		
Rythm.diverging (4)tone pattern Divided		44.1	(=)39.1-2	frag
Rep. 4-tone- (pizz)pattern	e/eb/c#d	44.2-44.3	(~)29.1	var/frag
4-tonepatterns chrom down		44.3	(=)7.1	ict/var
2-tone(theme) motif	Int. 10	45.1	Combination of: ~14.2-3	frag
4-tone(fourth)motif	c-a-d-g		~10.1	var/frag
Rep. cluster w. pizzflageolet	h/c/db	45.1-3		
Rep. 2-tonepatterns	Polyphony: tutti Int. 1-2 Synchronous	45.3	~24.3	d.int.
Chords	e.g.: clusters Synchronous	46.1	~10.3-11.2	d.t./d.r

Name of the field-character	Tones/intervals/characterization	Page and system in score	A “repetition” of page:	What are the changes:
2-tonegliss.patterns	Int. 1	46.1-2		
Rep. cresc.tone w. pizz.post-note	f/e – e Synchronous	46.2		
3-tonepizzppattern	d#-f#-f	46.3	~3.2-3	frag/tr. 1 tone up/ var
Pizzchords	e.g. int. 10/11 Asynchronous	46.3		
Pizzchords	Synchronous	47.1	~17	d.t./d.r
Rep. 2-tonepatterns divided/brutal	Asynchronous	47.1-2	~32.2-3	d.t./d.r./d.d.
Rep. cluster	a/bb/h/c	47.3	(=)32.2-3	frag/d.d.
Rep. 4-tonepattern Circle	c#-e-eb-d poly synchronous	48.1	~33.1	d.t./d.a.
3-tonepattern divided		48.1		
Rep. 4-tone(pizz)-pattern	e/eb/c#/d Synchronous Poly	48.2	(=)29.1	frag/var
Rep. 2-tonepatterns	Polyphony: tutti Int. 1/2/3/4/10 Synchronous	48.2	~24.3	d.t./d.a./d.int.
Rep. 2-tonepattern	d-c vcl/vla	48.3	~9	d.t.
Rep. 3-tonemotif w. pizz-gliss accomp.	d#-e-f	49.1	(=)20.1	(d.r.)
5-tonepatterns Divided	(Long passage!)	49.2-51.3		
Rep. lyrical thememotifs	Perf. nine-motif in vl1 Descend. bass-pizz-ostinatos	52.1	~22	d.t./var/d.d./pizz)
Rep. chords w. post-notes	(long passage!)	52.2-53.3	(=)15	+more systems w. d.t.
5-tonepatterns Divided		54	~/=50	s.t.-mcp
Themefrag. w. fourthmotif		55.1	~/=10.1	tr. up a minor third /ict
Rep. cluster divided	db/eb/c/d Asynchronous	55.2	~1-2	d.t./d.r./d.d.

Name of the field-character	Tones/intervals/characterization	Page and system in score	A “repetition” of page:	What are the changes:
Rep. cluster	h/c/db/d/eb/e/f Synchronous	55.3	~1-2	d.t./d.t.
Pizz/arco-chords	Asynchronous	56	~8	d.t./d.int./d.r.
6-tonepattern		57.1	(=)33.2	frag
4-tonemotif	e-d-f#-h vl1	57.1	(=)33.2	frag
Rep. 2-tonepattern	Int. 2, (tutti) (c-d/c#-eb)	57.1	~24.3	d.t./d.int
4-tonepattern circle		57.1	(=)33.1	frag/sound
2-tonemotif w. synchr. chords	Motif-int. (10)-1	57.2	~43.3-44.1	d.t./d.int
Rep. 4-tonepattern Circle w. pizz-accomp.	d#-e-d-db poly synchronous	57.2	~33.1	d.t./d.a.
4-tonepatterns chrom down w. pizz.accomp.		57.3	~7.1	var/d.a.
4-tonepatterns Divided	Asynchronous Pattern divided between instr.	58.1	~5	d.t./d.r.
Chords	e.g.: clusters Synchronous	<u>58.2-3</u>	(=)10.3- <u>11.1</u> <u>11.2</u>	d.d./d.r.)
Rep. 2-tonepatterns 3-tone(pizz)pattern		59	~30.1-31.1	ict/d.d./d.t.)
Rep. cluster	c/db/d/eb Asynchronous	60.1-3	~32.2-3	d.t.
Pizz/arco-chords	Asynchronous	60.1-3	~56	d.t.
Chords w. post-notes	(synchronous)	61	~15	d.t.
Rep. chords w. pizz.post-notes	(synchronous)	62	~15	d.t/pizz
Rep. 4-tonepattern	d-c#-e-eb vl1	63.1	~29.1	frag
Rep.3-tonemotif w. pizz.gliss.pre-note	db-d#-e	63.1		
Rep. 2-tonepattern	Int. 1/3/4	63.1	~24.3	d.t./d.int.
Rep. 3-tonemotif w. pizz. post-note	db-d#-e vl.1	63.1		
Rep. 4-tone pizz.-pattern	e/eb/c#/d Synchronous poly	63.1	(=)29.1	frag/tutti pizz
-//-		63.1	(=)29.1	frag/var

Name of the field-character	Tones/intervals/characterization	Page and system in score	A “repetition” of page:	What are the changes:
Rep. 2-tonepatterns	Int. 3/10	63.2	~24.3	d.t./d.int
Rep. 2-tonepattern w. pizz. accomp.	Double-grip (vl 1+2, vla)	63.2		
Elastic echo-pattern	eb-d# vl 1+2 c#-d vcl	63.3		
Rep. 2-tonepattern	Int. 3/10	63.3	~24.3	d.t./d.int
4-tonepatterns in 5/16 Divided	Asynchronous	64		
Rep. 2-tonemotif w. pizz.accomp.	Int. 2, nine	65		
5-tonepatterns Divided		66	~/=50	s.t.-mcp
Rep. cluster diverging speed		67.1	(=)32.2-3	var/d.d.
Brutal cluster	a/a#/h/c/c#/d/d#/e	67.2		
Rep. cluster diverging speed		67.2-3	~32.2-3	d.t./d.r./d.d.
Pizz.chords		67.3	=47.1	
Chords w. post-notes		68.1	~15	d.t./d.d.
Chords (calm/slurred)		68.2	=10.3	
Temafrag. w. fourth-motif		68.3	(=)10.1	sul. t
Pizz/arco-chords	asynchronous	69	~56	d.t./d.r.
Chords synchr./pauses		70-71	~12.3	d.t./ (d.r.)
Rep. lyrical thememotifs w. descend. bass-pizz.ostinato		72	~22 <u>~/=52.1</u>	72.1 Rx2 72.2-3 s.t.-mcp
2-tone thememotifs	Int. 4/9	73	~14.2-3	d.int/d.t.
5-tonepatterns Divided		73	~49.2-51.3	d.t./d.r.
Rep. chords asynchronous diverging speed	e.g.: g-c-gb-db	74		
Rep. 2-tonepatterns	Int. 1/2/3	75.1	~24.3	d.t./d.int.
4-tone(fourth)motif	c-a-g-d	75.1	(=)45.1	frag
Chords	e.g.: clusters synchronous	75.1-2	~10.3-11.2	d.t./d.r.

Name of the field-character	Tones/intervals/characterization	Page and system in score	A “repetition” of page:	What are the changes:
Rep. 2-tonepatterns	Int. 1	75.2	~24.3	d.t./d.int.
2-tonegliss.patterns		75.2-3	(=)46.1-2	sul.t. (vl2)
Pizz.chords	Asynchronous	75.3	~46.3	d.t.
Chords brutal		76.1	~36.2-3	d.t./d.d
Pizz/arco-chords	synchronous	76.2	~36.2-3	d.t./pizz+arco
Rep. 2-tonepatterns w. synchr. chords	d-c	76.3	~9 (=)48.3	(d.d./d.r./d.s.)
Rhythm. diverging 2-tonepatterns	e.g. int. 1/3/4/6/11	77		
Rep. 2-tonepatterns w. pizz.accomp.	Double-grip	78.1	(=)63.2	(d.t.)
4-tonepatterns chrom down		78.1	(=)7.1	frag/ict
2-tonemotifs w. synchr. chords	Motif-int. 1/10/11	78.1-2	~43,3-44.1	(d.t.)/(s.t.-mcp)
Rhythm. diverging 4-tonepatterns	Divided	78.2	(=)43.2	var
Rep. 2-tonemotif w- pizz.accomp.		78.3	(=)65	frag/ (d.r.)
Rep. lyrical thememotifs w. descend. bass-pizz.ostinato		79	~22 ~52.1 ~/=72	cos 3-2-1
Arpeggio-pattern w. pre-note		80.1	(=)7.2	var
4-tonepatterns chrom down		80.2	~/=7.1	R (d.s.)
4-tonepattern arco/pizz	eb-d-c-db	80.3	(=)7.3	var. in terms of repetition (R)
Rep. chords w. post-note	(Very long passage!)	81.2-84.2	~15 ~/=52.2-53.3	cos 2-1-3 s.t.-mcp
Rep. chords	Synchronous	84.2-3	~23.3	d.t./d.r.
Chords synchr./ pauses		85	~/=70-71	R r3, r2, r1
Rep. 2-tonemotif (calm) tutti	g-a	86.1		
Rep. chords	Synchronous	86.2	~23.3	d.t.
2-tonemotif Instr. solo	vla., solo (Seule)	86.2	~25.1	d.t./d.i
6-tonepattern Instr. solo	vl1., solo (fragile)	86.2	~25.1	d.t.
Pizz.chords	Synchronous	86.2-3	~17	d.t./d.r./d.d.

Name of the field-character	Tones/intervals/characterization	Page and system in score	A “repetition” of page:	What are the changes:
Pizz.chords	Asynchronous	87.1	~46.3	d.t.
Rep. chords	Synchronous	87.1	~23.3	d.t./d.r.
Rep. 2-tonepattern Int. 2, rusty	Int. 2, tutti	87.1	~24.3	d.t./d.r.
4-tone(fourth)motif		87.2	(=)45.1	var
Rep. lyrical thememotifs w. descend. bass-pizz.ostinato		87.2-3	~22 ~/=52.1	s.t.-mcp
5-tonepatterns Divided		88	~/=50	s.t.-mcp
Rep. 2-tonemotif w. pizz. accomp.		89	(=)65	var
2-tonepatterns calm/dissonant	Int. 2	90.1	~24.3	d.t./d.r.
Chord /dark	Double-grip:1/ 2/11			
Chords synchr./pauses		90.2	~12.3	d.t.
2-t.pts. calm/disso Chord /dark		90.3	(=)90.1	var
Chords / synchr. w. a few pizz.solo- parts	(VERY long passage!)	91-94.3	~23.3	d.t./pizz.parts/d.r.
(2)-tonepatterns calm/disso Chord / dark		94.3	~90.1	var
Chords / synchr. w. a few pizz.solo- parts	(calm /long passage)	95-96	~23.3 ~91-94.3	d.t./d.r.
Rhythm. diverging 2-tonepatterns	e.g. int. 1/3/8/10	97	~77	d.t./d.int.
Pizz. bass-fig. “free-jazz”		98	(=)35.2-3	var (vcl)
Pizz.chords synchr	Int. 1/3/4/5/6/ 10/11	99	~/=17	s.t.-mcp
Chords / synchr. w. a few pizz.solo- parts		100	~91-94.3	(d.t.)/shorter passage
Rep. 2-tonepattern Int. 1/2 (rusty)	Int. 1/2	101	~87.1	d.t./d.int

Name of the field-character	Tones/intervals/characterization	Page and system in score	A "repetition" of page:	What are the changes:
Chords / synchr. w. a few pizz.solo-parts		102.1-2	~91-94.3	d.t./shorter passage
2-t.pts. calm/disso Chord / dark		102.3	(=)90.1	var
Rep. 2-tonemotifs w. pizz. accomp.		103	(=)65	var
6-tonepattern Instr. solo	v11, solo	104.1	(=)86.2	a longer pause
2-tonemotifs Instr. solo	vla., solo	104.1	(=)86.2	a longer pause
Pizz.chords synchr Rep. chords synchr		104.1-2	~17 ~23.3	d.t./d.r./d.d. d.t./d.r.
Rep. 2-tonemotif, int. 2, rusty	g-a divided	104.3	~87.1	d.t./d.r.
Rep. lyrical thememotifs w. descend. bass-pizz.ostinato		105	~/=72	s.t.-mcp
2tonemotifs,(solo)parts, pizz/arco	Int. 6/8/10	106		
Rep. 2-tonemotif w. synchr. chords	h-db	107	~76.3	d.t./d.r./ca.
Rep. 2-tonemotif w. pizz.accomp.	c-d	108	~65	d.t./d.r.
Rep. 2-tonepatterns Int. 1/2 (rusty)		109	~/=101	S1=r3(ict) S2=2(ict) S3=1 s.t.-mcp
2tonemotifs,(solo)parts pizz/arco		110	~/=106	S1=3 s.t.-mcp S2=2 s.t.-mcp S3=1 s.t.-mcp
Rep. 2-tonemotif w. pizz. accomp.	c#-eb	111	~65	d.t.
Rep. 2-tonemotif w. synchr. chords	c-d	112.1-2	~107	d.t.
Rep. chords	Synchronous	112.3	~23.3	d.t./d.r.
Chords synchr/pauses		112.3	~12.3	d.t.
Rhythm. 1-tonepatterns in 5/16	Tutti: f/gb/g/ab Polyphony	113.1		
Flapping 1-and 2-tone „tremolo“-figures	e.g.: g/gb	113.1		
Rep. 2-tonepatterns	Int. 2	113.1	~24.3	d.t./d.int.

Name of the field-character	Tones/intervals/characterization	Page and system in score	A “repetition” of page:	What are the changes:
Flapping 2-tone „tremolo“-figures		113.1	(=)113.1	ict
4-t.pizz.pat. Divided diverging 2x2	(A)synchronous (2x2 instr.)	113.2-3	~5	d.t./d.r./ca.
4-tonepatterns arco/pizz asynchr		114.1	~7.3	d.t.
Rep. 2-tonepizzpat.	Int. 1 poly tutti	114.1		
6-tonepatterns		114.1	~33.2	d.t./d.a.
4-tonepatterns Divided div. 2x2		114.2-3	~/=113.2-3	s.t.-mcp/ict/(tr. an octave)
Flap. 2-tone „trem“fig		115.1	~113.1	d.t./d.int
Chords synchr/pau		115.1	~12.3	d.t./d.r.
Rep. 4-tonepatterns (synchr) poly		115.1	~33.2	d.t./d.a./var
Flapping 2-tone „tremolo“-figures		115.1	= 113.1	(frag)
Chords synchr/pau		115.1	~12.3	d.t./d.r.
2-tonemotifs, (solo)parts, arco	Int. (2)/10	115.1-2	~106	d.int.
Rep. 4-tonepatterns (synchr) poly		115.2	(=)115.1	var/(d.t.)
2-tonemotifs, (solo)parts, arco		115.2	~115.1	frag/ict
Flapping.2t.trem.fig		115.2	=113.1	(frag)
Rep.4t.m.(synchr)poly		115.2	(=)115.1	var/(d.t.)
Rep. 2-tonemotif w. pizz. accomp.	c#-eb	115.3	~65	d.t.
Rep. 2-tonemotifs	Int. 8/10	116.1	(=)14.2-3	var
Rep.4t.pats. divided	g-a-d-e	116.2	~58.1	d.t./d.r.
Rep. 2t. theme-motifs	Int. 8/10	116.3	(=)14.2-3	var
Chords synchr/pau	chords in $\frac{3}{4}$	117	~/=71	R (of whole page)
Rhytm.diverging 2-tonepatterns		118	~/=77	R S1=r1 S2=r2 S3=r3
Chords synchr. w. a few solo-pizz.parts		119	~91-94.3	d.t./shorter passage
Rep. chords w. postnote	Very long passage!	120-123	~15 ~81-84-2	d.t. (s.t.-mcp)
Rep. 2-tonepattern	eb-c#	124.1-2	~9	var/(d.a.)
Rep. 2-tonepattern	eb-c#	124.3	~9	pau

Supplement 2

The frequency of all fields in Morton Feldman's String Quartet No. 2

<u>Field-categories</u>	<u>Field-characters</u>	<u>Total times field-categories and – characters occurs in the work</u>	<u>Total occurrence in measures (repetitions are included!)</u>
Motifs		58	1154
Various motifs		13	317
	Repetitive lyrical “theme”-motif w. descending bass-ostinato	6	254
	“Theme”-fragments w. fourth-motifs	7	63
1-tonemotifs		2	26
	(Neutral)	2	26
2-tonemotifs		27	678
	“Theme”-motifs	8	159
	W. accompaniment of synchronous chords	5	123
	W. pizzicato-accompaniment	7	306
	W. solo-parts, pizz/arco	4	63
	Calm (tutti)	1	15
	Played by one instrument (solo)	2	12
3-tonemotifs		8	96
	(Neutral)	1	14
	W. glissando/pizz.accomp.	5	78
	W. glissando.pizz.pre-note	1	2
	W. pizzicato post-note	1	2
4-tonemotifs		8	37
	(Neutral)	5	15
	(Fourth)motif	3	22

Chords		<u>80</u>	<u>2846</u>
	Clusters, synchronous	15	375
	Clusters, asynchronous	9	220
	Clusters, a/synchronous	2	59
	Synchronous w. parts of pauses	8	143
	Repetitive w. post-notes	9	907
	Brutal	2	40
	Pizzicato	11	233
	Combined pizzicato/arco	4	81
	Repetitive w. pizzicato post-notes	1	108
	Repetitive w. differentiated speed	2	88
	Dark/deep	4	8
	Sequence w. pizzicato-solo-parts	5	439
	Various repetitive, synchr.	5	79
	Various repetitive, asynchr.	3	66

Patterns		<u>101</u>	<u>3483</u>
2-tonepatterns		41	1545
	In 1-2 instr., major second	7	166
	Tutti, major second	5	115
	Tutti, alarm, minor second	3	46
	Different intervals in 2-3 instr.	7	378
	Tutti, polyphony of patterns	7	497
	Glissando-patterns	2	16
	Brutal, asynchronous	1	38
	W. pizzicato accompaniment	2	24
	Rhythmical diverging	2	178
	Rusty, minor/major seconds	4	83
	Tutti, pizzicato, polyphony	1	4
3-tonepatterns		6	374
	Pizzicato	4	274
	Chromatic ascending	1	57
	Divided between instruments	1	43

4-tonepatterns		37	1055
	Repetitive, (neutral)	1	9
	Divided	3	136
	Arco/pizzicato	3	63
	Pizzicato	5	151
	Pizz., divided, diverging 2x2	2	75
	Polyphony, (synchronous)	3	6
	Chromatic ascending	2	75
	Chromatic descending	5	281
	Chromatic descending w. pizzicato accompaniment	1	26
	Circle	6	57
	Circle w. pizzicato accomp.	1	8
	Rhythmic diverging	4	114
	In 5/16, divided	1	54
5 & 6-tonepatterns		13	422
	5-tonepatterns, divided	5	374
	6-tonepatterns	6	36
	6-tonepatterns, instr. solo	2	12
Other patterns		4	87
	Rhythm. 1-tonepattern in 5/16	1	10
	Elastic echo-pattern	1	17
	Arpeggio-pattern w. pre-note	1	27
	Arp.-pattern w. pizz. pre-note	1	33

Other fields		<u>11</u>	<u>146</u>
	Fragment from 4-tonepattern, chromatic ascending	2	25
	Fragments w. pauses, (solo-parts)	1	14
	Pizzicato bass-figure, “free-jazz”	2	87
	Repetitive crescendo-tone w. pizzicato post-note	1	8
	Flapping 2-tone tremolo-fig.	5	12