GYÖRGY LIGETI

Form and Style in his music

1956 — 1968

by

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Writing about a living composer is a little like writing an obituary for someone before he is dead. For this reason it is difficult, if not impossible to anticipate new directions and developments in their style or technique, particularly if radical changes have already been noticed. However, this was not the reason why I chose to concentrate on the works of this period, those written after his emigration to Western Europe from Hungary in 1956, which he considered to be his first major compositions. In addition to taking advantage of seeing these works in perspective as far as later developments are concerned, one may see that his early styles of composition lay the foundations, if not the scaffolding for the 'mature' compositions of the late 1960's. This basis is fundamental to the understanding of Ligeti's musical processes, as indeed are the political circumstances which led to his emigration into an environment which cultured his artistic development.

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The fact that Győrgy Ligeti was born in Hungary is not one of casual value, for, as will be seen, the political circumstances in that country caused him to leave his homeland and to discover, create, and pursue new directions that might otherwise have been denied to him. After the founding of a constitutional monarchy, during whose government he was born in 1923, Hungary drifted into association with Italy and Germany, joining Germany in World War Two. The occupation of Hungary by Soviet troops during the war, resulted in the founding of the Communist People's Republic, forming a part of the Eastern Bloc. The dismissal of the popular liberal leader Imre Nagy, resulted in the reinstatement of his predecessor whose reforms, and restrictions of liberty caused demonstrations and ultimately revolution. Soviet troops retired, and Nagy formed a government. However, at his renouncement of the Warsaw Pact, Russian forces crossed the border and re-exerted control, with the result, after two weeks of fighting, that Hungary once more became a Communist State. During this period over 150,000 refugees escaped to the West, Ligeti being one of them.

Because of the Communist regime and its desire to seclude the population from Western culture and politics, Ligeti had largely been unaware of developments in European music until the period of political confusion around 1956. His own musical education had been conservative, and his later compositions in Hungary ran concurrently with his teaching post at the Budapest Conservatoire, where he had himself been a pupil.

The effect of his emigration to the West was not as pronounced as it may at first appear. It was rather the development from original ideas which was enabled by prevailing ideas and influences, that was to prove the most important. When new artistic doors opened in 1956, Ligeti was at the stage whereby he had already rejected the Bartok-style expected of him, yet did not possess the technique and to an extent the courage, to pursue new ideas or thoughts. In the summer of 1956 he sketched some radical works before leaving Hungary, and most of these compositions remained behind. However, he wrote Visions, which became a part of Apparitions, from memory, and his experimental ideas on static types of form, shaped by music in which traditional rhythmic, motivic, and thematic working has no place, were soon to take shape. He was also acquainted with serialism to a limited extent, so that these tendencies towards a new orientation of technique and expression were already present before the decisive change in his environment.

Ligeti travelled to Vienna and then to Cologne, where he worked with Eimert in the electronic studio of West German Radio. This change of environment was almost as radical as it could have been. He came into contact with the chief innovators and exponents of the avant-garde serial and electronic musical worlds (I); this was
to prove decisive for his future development. Three electronic pieces date from this period, as well as his intellectual absorption of serialism, and the complete musical history of his own lifetime. After 1959, Ligeti spent the next ten years in Vienna, and also from that date, became Director of the Darmstadt holiday courses, that were a breeding ground for new musical developments and ideas.

(I) Ligeti lived at Stockhausen's home immediately after his escape to the West. Stockhausen describes Ligeti's state of exhaustion, and his immediate desire to know everything from which he had been excluded;

"Ligeti lived at my house...at the time when I was composing Gruppen...I showed him the relative variability within what I called Gruppen's time fields. For example, within a given interval...I'd determined a spiral movement. All the instruments...had to go in irregular but directionally upward movements...And I told Ligeti about these new processes, statistical processes that I had been exploring for three years. And he caught on...it's like pattern composition...more highly decorative art uses this kind of repetitive pattern work. And Ligeti continued working in this fashion...avoiding all the clearly defined figures."

Jonathan Scott 'Stockhausen: Conversations with the Composer.'
When asked to assess the influence of this early period, Ligeti answered

(2) "...I learnt much from Stockhausen, Eimert and Koenig: it naturally had an effect upon my later work. However, I had many of these ideas (concerning static forms) before I came to the West. I was influenced by Bartok, Stravinsky, Berg: I did not know any Schoenberg or Webern, I knew Hindemith, but was not influenced...I heard around 1952-3 that electronic music was starting up, also about serial music. It was about that time that I began my ideas about static music: not to work with melody and harmony any more, but with pure sound colour. This later manifested itself in Atmospheres...One problem that I had come up against was that of metre: now it exists only as a scheme of sound synchronisation. Boulez and Stockhausen had a great influence on me here, particularly during my first year in Cologne with Stockhausen".

This idea of static music, was one of the four styles or types of musical composition that he was to write. This type may be seen later to combine, contrast or co-exist with the other three, but to begin with, the overall static quality was to constitute the piece. Ligeti was not the first to use the static element in music. "Farben" from the Five Orchestral Pieces opus 16 demonstrates this. The plan of Ligeti's Atmospheres, that is, the building up of static sounds, had emerged in his composition as early as the 1950's, eleven years before its actual completion, and, he claims, was only delayed by his ignorance of twentieth-century music, due to his geographical location. In the following passage, he comments collectively on these static pieces, Apparitions, Atmospheres, Volumina, Lontano, the first movement of the 'Cello Concerto and the Kyrie from the Requiem, and describes their similarities;

(3) "These pieces have something in common — the way the music appears...a particular kind of music, which brings or awakens an impression as if it has no beginning or end...as if it was continually striving towards something. What we're actually hearing is a piece of something that has always had a beginning and will continue to sound. In all these pieces there are very few breaks — music flows. The formal characteristic of this music is the static quality — it appears to stand still, but actually does not. In this state of static, there are

(2) J. Häusler " Zwei Interviews mit György Ligeti " from Ove Nordwall " György Ligeti Eine Monographie " pp120-121.

(3) As above pp114-115.
ontd...." gradual changes. I have the image of the surface of some water before me, from which a picture is reflected, but slowly the picture becomes blurred and gradually disappears...the water then becomes flat, still, and we see another picture. That would be a metaphor or association. But there is already something metaphorical in the titles of the works themselves...The titles connect to the pieces in a similar way to those of the Debussy Preludes for example."(4)

mull wonder then, that Ligeti remarked "The best criticism of my life" over the following newspaper report — "Everything stands completely still, in the course of which, an eternal duration of nine minutes, absolutely nothing happens." (5)

his static sound could be seen to be a series of twenty-one 'variations', which are structural actions of sound colour, showing the possibilities of sound weaving from the source of the cluster. A twenty-second piece also exists (a), although it is only imaginary. According to the score, it is to last nineteen seconds, and seems to be an attempt allowing the sound to resonate freely in the listener's subconscious. These twenty-two pieces then, run into each other without pause. Their lengths are approximately, 48", 9", 55", 37", 6", 23", 33", 14", 21", 18", 5", 8", 10", 26", 43", 16", 9", 12", 4", 7", 1", and 19" respectively. These figures are not coincidental, but are the result of a plan of balance for two purposes; firstly to obtain some kind of relationship between individual pieces, but nevertheless to avoid similarity, symmetry or repetition, and secondly, to relate duration with each sound genre, whether that of internal movement, manic level, or instrumentation. The use of the frequency band also enters into this, as an element of structure, and of modification of sound. The range extends from semitone to over five octaves, and the effect of widening and of tightening the range, together with the previous points concerning structure, contribute to the extraordinary y in which he is able to manipulate time, and to arrest it. Here, the lack of musical tail in the conventional sense, makes one wholly reliant upon this 'background' noise, at now becomes 'foreground', so that an imaginary perspective now functions from the angles and reflections in texture.

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(4) Debussy writes the titles at the end, in parenthesis.
(5) The best criticism Ligeti gives in the phonographical part.
Below, Ligeti describes part of the piece from bar 35 onwards,

(6) (b) "after a cluster of basses, strings come in, and the whole of the string orchestra dissolves in independent voices. In all, there are 56 string voices, and this entrance you will hardly hear...When you analyse this section of the score, you could practically consider it as using a canon technique, only you cannot hear it...rather we hear a continuous music weaving...in this example, the surface of sound is wide, meaning that its range is from the lowest to the highest register...all the chromatic stages are present. However, at some points, tones are missing because the voices keep changing. You get an iridescent sound which is perfected — different pointers are audible. It begins sul tasto, then sul ponticello, then crescendo, then back to normal. Hand in hand with these orchestral colours and dynamic transformations, a compression of sound is heard. That is, the sound becomes tighter as if this sound was being stuffed into a funnel. This funnel becomes constricted into a form of whirlpool...the overall sound is tightened from having several octaves, to only a minor third...chromatically filled out, but in continual movement. I'd like to stress that Atmospheres was a piece you could call a Klangfarbenkomposition par excellence, and stands in relation to that of Schoenberg's opus 16."

The canonic technique that is used to form the middle of the arch form that he describes the piece to be, is to be used later in his work, notably in Lux Aeterna (1966), five years later. In both works, it is utilised as an inaudible structural device for slowly fluctuating chromatic distribution, imitating not in rhythm but in succession of tones.

In order to achieve this incredible sound mass, Ligeti uses a large orchestra, large in quantity that is, and not in variety of instrumentation, as one might expect. He uses a traditional orchestra, with the equally tempered scale, and multiple divisi to achieve the static layering of the imperceptibly varying cluster. It is this constant variety of layering that is used to provoke variety and colour. Contrast as such, rarely occurs; it is more subtle than that. It explores more the relationships of sound than that of contrast (this is a fact page). For example, where strings gradually subside into the piano, and this subtle relationship that contributes to the static quality of the piece. In this union, we appreciate some elements that gives the piece an elegantly sound to perform. If we were transformed by this basic element, in fact, one is liable to finding in pieces that there is an organ element, because of this expansive, melody or writing more of sound.
In his preface to the score, Ligeti gives meticulous directions for performance, continually emphasising that each instrument must blend without exception into the whole.

"Individual parts must not be noticeable as such, they must all fuse into a delicate veil of sound."

No particular sound or movement is therefore independent, a feature that was to remain important in parts of his later works. Also to become characteristic, is his attention paid to manner of attack, and manner of sound production. Directions for 'imperceptible' attack to reinforce this fusion of sound in both wind and strings, as well as the special effects observed in the score, remain throughout his works, especially the demand - 'plötzlich abhören' that becomes even more violently expressed as 'aufhören wie abgerissen' stop as though torn off. Notated rhythms are asymmetrical in an attempt to avoid any kind of pulse or metrical regularity, so that although instrumental groups generally enter and depart simultaneously in blocks, there is no feeling of a metrical 'construction' as such.

The idea of static, chromatic cluster composition is heard at its most extreme in Volumina (1961-2) for organ. A contemporary of Atmosphères (7) it too evokes the imaginary, dreamy world that he sought to create,

(8) "It is a very small sound colour piece using primary colours...I wanted to get what I could from this instrument that was fast becoming obsolete."

In order to achieve the desired effects, normal playing techniques and changing of registration, are extended to their most flexible limits. One look at pages of the score (c) and their diagrammatic notation emphasises this desire to inject new possibilities into a traditionally inflexible instrument (9). Like Atmosphères, the piece is described as being in arch form, with no pauses or breaths, leaving the player to interpret the given symbols in an attempt to revive the whole notion of interpretation, and visual-mental process; and perhaps also to revive the tradition of the organ as an improvisatory instrument. Certainly, Ligeti stated that he had in his mind the same spatial scale and splendour as that of a Bach Passacaglia, and commented that the Baroque concept of figuration, added to the late Romantic expression of Liszt and Reger, became a natural influence.

(7) Although the revised version did not appear until 1966,
(8) As (2) pp123-4
(9) In his opinion, Messiaen was one of the very few successful composers for this instrument.
Although serialism was handled with comparative flexibility to begin with, total serialism, in which serial organisation of all parameters became of paramount importance. His rejection of this was on the grounds that paradoxically, in the face of the serial organisation of duration, movement, structure and so on, the serial arrangement of pitches that had initiated the whole process, was the first thing to be obliterated in this shift of emphasis. This is particularly relevant where many horizontal layers of sound are used, where serial threads are obscured, and resulting intervals sound the product of chance, not organisation —

(12) "In this way the pitch series loses its last remnant of function, paralysed by the emerging complex."

Together these things lead to an erosion or indifference to intervallic profile, so that chromatic scale, would in a composition using vertical complexes and the construction and dismantling of layers, suffice in the place of one carefully constructed.

In considering his own construction of dense but transparent polyphony in Apparitions, Atmosphères, and the Requiem, one may see similarities to serial methods of organisation. He uses free chromatic construction from an 'arbitrary' complex of intervals totally unrestrained by questions of tonality, which he proceeds to build into a multi-layer structure, so that it is indeed only pure sound that results, the intervals of which are sunk into the complex texture. Ligeti rejects the concept of a serial row for this very reason, and rejects those of further organisation simply in virtue of the fact that he remains completely free to operate and to control the most important aspect of these static pieces, that of experiential time, which some serial compositions, due to their essentially pre-fabricated conditions, fail to manufacture. Ligeti explains his predicament;

(13) "...should he (the composer) allow the form to follow from pre-stabilised elements and schemes of organisation, fully aware of the risk he runs of virtually allowing the result to slip through his fingers? Or should he take the other path and progress from a total vision into particularities accepting as part of the bargain, the fact that he will have to sacrifice any number of attractive, and in themselves, logically developed details?"

(12) G. Ligeti 'Metamorphoses of Musical Form' 'Die Reihe 7' 'Form and Space' 1958
(13) As above.
Ligeti's modification of the systematisation and 'operations' of elements that arose from serialism is important. This introduces his second type of composition, that built up from a repertoire system. In the first movement of Apparitions for example, no tone rows exist, but each element conforms to its own order. Unity is achieved by the means in which these elements are combined, like the component parts of a machine. He uses a repertoire of durations, for example, where the shortest and longest lengths have between them a specific number of varied lengths. These lengths however are not ordered, and their number is not constant. Furthermore, the longest element appears only once, and the shorter the element in comparison, the more frequently it appears. In fact, by multiplying the shortest elements by their total occurrence one has the length of the longest. In this way, length multiplied by frequency of occurrence is a constant. This is in contradiction to a serial row of durations, in which the balance is in favour of the longest elements, which, as he says (14), results in the comparatively slow pace of much of this kind of serial music. (15) Therefore, he decided against the row of lengths, in favour of a repertoire of lengths.

The idea of Apparitions was conceived in Budapest, early in 1956. Ligeti rewrote it in 1957, reacting as much to serialism as to his earlier style, modifying both. It was not until the third definitive version, completed in 1958 that he became satisfied with the structural balance. His innovation in Apparitions was the total destruction of all rhythmic, melodic, and harmonic values, or rather the use of them as elements no longer individually perceptible in the highly differentiated web of sound colours and textures, where subtle changes in density and volume, function as form articulating agents. He abandoned the second movement, written in 1957, which was a primitive anticipation of the aleatory counterpoint of Lutoslawski in Jeux Venetiens and later works, as well as a third movement, which may have been the unconscious or conscious starting point for the second movement of the 'Cello Concerto nine years later.

The first movement of Apparitions underwent further elaboration and expansion, and was rewritten for full orchestra, and not the chamber orchestra envisaged in 1957. A new second movement was written as a kind of variation to the first, not strict, in the conventional sense, but

"A variation of musical types and articulations"

almost as if he had subjected the first to the kind of processes existant in his electronic writing. (Such as, filtering, speeding up of syntax and other methods.)
The relation between the two movements is comparable to that in the 'Cello Concerto, and the first two movements of the second String Quartet. In Apparitions, there are two elements that reciprocally influence each other; a background web of sound, and sharp acoustic projectiles which increasingly try to penetrate this web, bringing about irreversible changes, which, in their turn, influence these tiny sound particles. Ligeti wrote —

(16) "There was something inexpressively sad in this process, the hopelessness of time vanishing, and of an irretrievable past."

Apparitions brings these acoustic projectiles into relation with a stationary element, that changes slowly under their attack. Atmosphéres and Volumina adopt only this slowly changing background, and the listener only indirectly perceives the drama from subtle changes in decor and lighting upon an empty stage.

Although he only used the statistical repertoire of durations for Apparitions, the repertoire system remains as a means of organisation. For example, the repertoire idea enabled him to combine individual components in a way that was not possible with a serial row. This resulted in the division of work into two stages, the choice of components, and the building up of a syntax with them. This system was to prove more fruitful than retaining serial techniques during the second half of the 1950's. A very good example of this, is the electronic piece Artikulation (1958), which does not employ the conventional organisation through all governable parameters. The function of shaping form, once restricted to individual melodic lines, motifs, or chordal shapes, had been handed over in serial music to more complex categories — Groups, Structures, or Textures. Ligeti wrote Artikulation to try and perceive or enjoy the effects of these three elements upon one another.

(17) "First I chose types with various group-characteristics and various types of internal organisation, as; grainy, friable, fibrous, slimy, sticky and compact materials. An investigation of the relative permeability of these characteristics indicated what could be mixed and which resisted mixture. The serial ordering of such behaviour-characteristics served as a basis for the erection of the form...I attempted to achieve contrast between the types of material, and between the modes of amalgamation, whereas the overall plan was a gradual, irreversible progress from the heterogenous disposition at the beginning, to the complete mixture and interpenetration of the contrasted characters at the end."

16) As (12)
17) R. Wehinger 'Artikulation'
The two works, Aventures and Nouvelles Aventures are very typical examples of this fragmented-jointed style. 1962 seemed to bring a complete change in Ligeti's musical attitude. Beginning with Poeme Symphonique, a humorous, grotesque piece for 100 metronomes, and continuing with the two Aventures, new elements began to appear in his music, making an almost shocking contrast to the static, elevated world of his earlier compositions. To begin with, these two pieces see the use of a much smaller, more flexible ensemble, again, a severe contrast to the huge conventionally orchestrated sound masses used before. Both pieces are scored for three singers, soprano, alto and baritone, and seven instrumentalists. Instrumentation is for flute, horn, harpsichord, piano, 'cello, bass and -- percussion, certainly one of the most provocative elements in the pieces (18).

Nouvelles Aventures divides into two parts. The first uses the alternation of static sound, that of suspended time, and fragmented sound, that is time that moves faster by virtue of irregular movement. As may be seen from the score(s) the piece begins with irregular ejaculations from the singers, the tension of which is bound together and exaggerated by the presence of a conventional means of supplying it -- that of the tone, or semitone. This suspended sound forms the basis, to which the singers and the other instrumentalists react. Reaction, response and ultimately drama provide the key to these pieces and causes their unity from the most fragmentary elements. The horn cadenza, for example (f) provokes the response from the singers and instrumentalists to form a climax that is as fragmentary as its origin, returning to the original material at bar 21. Ligeti integrates these two passages by tying over the notes of bar 20, so that after the vocalists and other instrumentalists have broken off sharply as directed, the sound at bar 21, for the next section has already been prepared, even suggesting that it has been present in the texture all the while. This serves to arrest time, at the opening's reappearance; it has had no perceptible beginning, so that one is unable to gauge how long it has been there, or how long it will last. He achieves the same effect by the use of abrupt pauses or silences, usually following complex irregular movement, or apparent pauses, leaving one or two performers isolated or exposed. It is interesting to see how one reacts to these different experiences. Time passes at its quickest during complex tutti passages, gradually slowing down as there is reduced movement or a reduction in the complement of the ensemble. Therefore, one's aural perception reacts favourably to a continuous noise of moderately dynamic level. The moment that this dynamic level is reduced, or when continuity is broken, tension increases and perceptible time slows down. However, time passes at its slowest not when there is nothing happening, as in the pauses, but when random happenings occur, with or without relation to each other. Time as an element

18) In addition to the full range of conventional percussion instruments, he asks for many that are decidedly unconventional. See Appendix III.
f pulse or metre, can no longer be perceived, so that it is mentally replaced either by similarity or total dissimilarity of event, and the comparative speed at which they pass. or example, the passage of continuous activity labelled 'Communication'(g), establishes sense of regularity, simply by virtue of its continuity. Ligeti calls this passage Communication' possibly for two reasons, the first being that it is the first point in art I where the voices are able to communicate with each other in any recognisable sense, naccompanyed, in what sounds like a conversation. Secondly, the passage concludes the first part —its comparative regularity has the effect of a cadence restoring order.

This responsiveness, communication, or reaction between the performers, brings hem even closer together in Part II. The soprano's Grand Hysterical Scene, beginning at ar 8, whips up feeling in the other performers. The exchange of fragments is speeded up n this piece, which has a similiar effect upon the listener as hearing Beethoven's Fifth symphony on 78 rpm. The rising panic in the performers, particularly that of the soprano, e temporarily frozen by mysterious, slow-moving section, notably bars 18-22(h), where the urious inclusion of a chorale does nothing to subdue the terror and hysteria that follows. tremendous climax to the whole piece is effected where one least expects it. Long pauses re broken by crashes, thumps, and bangs(i), in addition to the vocal screams, shouts and oans, so that the Coda's sotto voce muttering, whispering, and paper tearing(j) does nothing o remove one's doubt that it cannot finish without further calamity. The fact that it does ade away, only serves as a final assault upon one's nervous system.

The visual drama of these two pieces is very important. The emotional instructions iven to the singers are difficult to perceive without seeing their expression. At several oints they are directed to aim their remarks or noises specifically to the audience, as if xtending their imaginary conversations to include them, sometimes using a megaphone as if o emphasise their relative distance, and distance of communication. The actions of the nstrumentalists augment the drama. Slow and fast sections would be emphasised by their ate of movement. The percussion player plays as much a physical dramatic part as that of e vocalists — actions such as the tearing of paper, the rubbing of a balloon with a wet inger, of the dropping of a tray of crockery are not normally performed in the concert all, and are not merely extra musical effects.

In his later style, Ligeti modified the jointed repertoire system to include or scome the 'kaleidoscopic' form, where musical ideas that constitute quite separate elements, ompile a kind of repertoire similar to the earlier one. In his description of the repertoire system, Ligeti uses the metaphor of a printsetter using a box of letters.(19) Here, the etters are joined into words, and these words are then combined differently with one another, ike the shapes in a kaleidoscope, the elements remain the same, but form different patterns. e Second String Quartet and Ten Pieces for Wind Quintet are built according to this attern, although it exists beneath the overall form, and is built out of the four existing tyles of composition.

19) As 11 p516.
t was the use of the repertoire system that resulted in the development of his most sed structure, that of Micropolyphony. In the first movement of Apparitions he used he repertoire and jointed principles, both results of the serial approach. However, in the second movement he did not employ a repertoire system for lengths or any other components. The system was as valid as it had been in the first movement, but here, it was the operations with the elements, and not their individual make up, that were sed in the repertoire manner. Ligeti uses the following example to illustrate this;

(20) " For the construction of the first movement, the letters were in the various compartments of the printsetters box; the rules for the joining up of these letters were in an area outside the box. For the construction of the second movement, these rules were now within the box; outside the box there was a syntactical order on a higher level, which regulated the handling of the joined-together letters. The principle of jointing jointed sections, allows the formation of a finely knit musical net, which is characteristic for the second movement of Apparitions. In reality this net became a finely woven texture of instrumental parts; this concept necessitated the scores being set out like a fan, into a large number of individual voices. In this way 'inaudible polyphony', micropolyphony came into being, where individual parts are not heard, but do contribute to the overall polyphonic net. If one of these were changed, then so too would the whole."

Ligeti continued to develop this micropolyphony in the following piece Atmospheres. The net structure was made finer, and the remnants of independent rhythmic patterns were eliminated. Micropolyphony was used to realise gradual changes in sound colours and gradual changes in the texture of the net.

(21) " Of course I modified this idea (micropolyphony) to a certain extent as time progressed, but since 1966 (22) I have largely remained faithful to this idea, and even more rigid in my application of this idea after 1968, when I began to lighten the dense texture of the net. Admittedly, the individual parts

(22) As (11) pp515-6
(1)As above
(3)This is significant, being the year in which he wrote Lux Aeterna. As will be explained later, the piece is almost entirely micropolyphonic.
ognit..." remained of secondary importance, but occasionally, single, recognisable musical ideas would emerge. This lightened net texture is transparent in the way of a drawing, rather than opaque, as in a painting."

Ligeti gives examples of this easing of texture in the string quartet and the chamber concerto, where the music balances between audible musical ideas, and a seemingly impenetrable texture of sounds.

The best example of his use of microphony for the purpose of close analysis is his choral piece Lux Aeterna (1966). Composed in a few days after a long illness, it is emotionally his most satisfying work. Scored for 16 solo a cappella voices, the piece is wholly canonic with occasional harmonic punctuation, as will be seen. The canon, like that of Atmospheres is not perceptible. The piece begins on a unison in two voices, to which the other six female voices are added, imperceptibly, and with irregularity. (k) Gradually each voice begins to add new notes to the texture in the same way, resulting in a gently throbbing ever-changing sound. As may be seen from the chart (l), Ligeti gradually adds notes to the texture, then subtracts them as new notes are introduced. His is either constant, as in the case of the E's or the F sharps (although they are replaced by their chromatic equivalents F flat and G flat) or inconstant, where notes are reintroduced through no particular method because they are needed to form a part of the harmonic pattern, or to give a chromatic inflexion. This can be seen to happen fairly frequently at the point where no new notes are actually introduced (lines 13-19), when he reintroduces A at 17, reintroduces G, and eliminates the G flat at 19, presumably to try and achieve a climax before the top A appears at bar 24 (m). When this A appears, it is felt to be a climax point although there is a strict instruction preventing any dynamic indication, or increase. This is due to many reasons — firstly, the A is in new register, and is supported by the A one octave below (23). Secondly, the A is

This is interesting when referred to his ideas concerning the erosion of intervallic profile in serialism, where those that imply dissonance or consonance are dismissed in total serialism. Ligeti says:

"Our sensitivity regarding the octave is generally shunned...there are several reasons for this...its lack of harmonic tension is disturbing...and...the octaves overt relationship of overtone to fundamental advertises too plainly a tonal and hierarchical connection, and this makes it appear as a foreign body in a context that is not tonal. Sensitivity at this point leads to the practice of fixing the register of individual recurring tones and preferring unisons to octaves. Despite its close relationship to the octave, the prime position (unison) has completely different properties...its free tension in both directions...unbecause...the unison presents no overtone relationship..."
constant, rather like a pedal point. Ligeti goes to lengths to achieve this by overlapping the top and bottom two voices, so that the constantly flowing sounds mingle around and pierce to it. The A is so long and continuous that one waits for something to happen.

Thirdly, one is subconsciously made more aware of the A as the general texture gradually clears, as can be seen from the chart. From bar 24 onwards the top A and its octave below are established as the last new notes of this section, and gradually surrounding notes are cut out of the texture. He chooses also to rise to the A's rather than to fall. This aids the upward movement and also aids the climax without making it feel conclusive by any kind of downward movement.

The most subtle means behind this climax, is the actual means of construction. Ligeti uses the Eight singers in a kind of double choir effect. The two first voices sing together, but from then on the process between all parts in relation to the first art is entirely canonic in movement, although not so in rhythm. Linear control is exerted by the canon, but the horizontal is freely controlled to result in the freely-determined coincidence of notes and their resulting harmony. As in the rest of the piece, each note is picked out by a part of the text, but he gives directions in the course of the piece to avoid the 's' and hard sounds that would interfere with the general flow.

Formally, the piece may be divided into three parts. The first begins on the unison, fanning out until the octave A pierces the texture, dominating the other notes into subservience. Ligeti fragments lines and note changes so that one is not able to allow the progress of any one particular line until the octave A brings a constant element into focus.

The second section begins at bar 37(n). Here, the male voices take over; Ligeti tries to merge them into the previous texture, going from the unison A's to the A,F sharp in the same range as the bottom A, perhaps to eliminate the conventional idea of the roles of male and female voices in relation to each other. He is more interested in ranges, and not so much the separate qualities of each voice, aiming at smooth, uniform presence. After the clearing of the texture to a very white, bright sound in the previous section, it is contrasted here by a darker, denser quality. The male voices enter falsetto on 'Domine', the female voices leaving the text incomplete, as if they turn a corner and disappear from sight. The process then begins again, so that the end of the first section was also the beginning of the second. The A,B,F sharp chord is harmonically treated though disguised by the canon(bars 38-40). This time, the canon follows the bottom part, an inversion of the original procedure. Like the first section, it gradually thins out — inevitably, as the canon comes to an end, on flat,A flat, and C. This muddy texture clears suddenly at the first tutti choral section(0) with a magical, light, widely spaced chord to the words "give eternal rest", sudden haven after all the chromaticism emphasising this plea for peace.
The first and third choral sections follow the canon in the fourth choral section. The canonic lines are not identical throughout, but have features in common (e.g., where the falling fourth appears in all the parts at different points). It seems as if he is aiming at a conclusive effect by way of a descending morendo and tenuto relaxation, merging to the E in the tenors. This unison E marks the lower register repeat of bar 37, and for analytical purposes, the beginning of the final section. This time, very low basses repeat the same chord at a different pitch, without however, retaining the same relationship to the previous unison note as before. They enter again on the word "Domine", melting into the D of the top part which then transforms into an actual triad of D sharp minor, to be joined by low unison altos, who then continue the canonic process above the chord, whilst it fades out with new words. This then, is a condensed and varied version of sections one and two, for the sopranos I and tenors I join the altos with an octave B in the same manner as in the first section. The B unison is soon split, but the top octave remains. The canon continues until the end of the piece, becoming slower and ends on a tone of F and G. Below are two diagrams that describe the structure of the final section, and the overall design of the entire piece.
So then, this micropolyphony is structured by the jointing together of sections— the repertoire idea in fact. The piece is also static; like Atmospheres, there is imperceptible movement, and the viewing of different landscapes from one window, provides overall unity of the picture. From this piece one is able to see how three systems of musical composition combine to construct a form.

Ligeti's setting of the text is relatively conventional. He selects crucial words for emphasis; "Luce" is used at extreme height in octaves, to glitter and to penetrate the texture. "Domine" is used at exposed points particularly by the basses, who punctuate the piece twice with the reverence and solemnity of trombones. "Requiem", is also used at extreme heights of choral texture, particularly at the sudden entry (o). In the case of all three of these words, he restrains (in the case of "Requiem"), or forbids (with "Luce" and "Domine") movement, holding a relatively exposed chord in each case for a period in contrast to the slithering mass of sound that otherwise does its best, as instructed, to obscure the text.
The fourth and final type of music, Mesh music, is that which Ligeti describes as -

(24) "like a precision instrument or machine...(this) is characterised by a specific rhythmic configuration; a condition is presented not as 'soft', but as a finely broken up continuity; the music is seen as though through layers of wire mesh."

The earliest example of this mesh music is the Poème Symphonique, written in 1960 for 100 metronomes. Other examples include the third movement of the Second String Quartet, the second movement of the Chamber Concerto and smaller fragments in other pieces that serve to interact with the other three types — Part II bar 31 of Nouvelles Aventures for example. The two pieces, Etude no. 2 for organ, and Continuum for harpsichord, make exclusive use of this type. It is interesting to see that the two pieces using this type, also use the most mechanical instruments for their execution.

The point of the conventional moto perpetuo was the speed plus the usually simple harmonic plan, so that one knew where one was in relation to the end. It was the directional force of this thematic/harmonic plan, together with the actual speed, that motivated. In Continuum, there is no perceptible harmonic plan. Ligeti articulates the piece in terms of comparative register and complexity, the two together resulting in varying dynamic levels. For example, he begins at the middle register and proceeds to spread out like a fan — one is reminded of his comment concerning the second movement of Apparitions,

(25) "In reality this net becomes a finely woven texture of instrumental parts; this concept necessitated the scores being set out like a fan into a large number of individual voices. In this way, 'inaudible polyphony', micropolyphony came into being."

Perhaps then, he is trying here to achieve the same effect; micropolyphony on one instrument. It is interesting to see that this mesh music, is generally only used in a chamber texture, in an attempt to weave a continuous web of sound from smaller resources. This then, makes mesh music an extension of micropolyphony, in an attempt to extend a concept conceived with large resources, to a smaller medium.

(24) As (11)
(25) As above.
The spreading of this fan, until it becomes a ten finger exercise, increases dynamic level and sound spectrum. As more notes are introduced, more fingers used, the largely contrary motion patterns become gradually lengthened, so that as well as widening the harmonic spectrum, these patterns also serve to disguise the movement which appears to change more slowly. (q) The speed of the opening and its constant repetition of two notes that after a few seconds almost become a static chord, is soon measured by the gradual expansion in terms of width of the keyboard. This expansion is similar to the 'static' quality of Atmospheres where continuous, barely perceptible changes gradually alter perspective "like the surface of some water" (26). Gradually the fan closes again, with the same effect of 'funneling' as in Atmospheres (27) emphasised by the lower register and the use of a major second rather than the minor third of the opening. The process begins again, but due to the lower register, and the widened compass of its extreme point (a major sixth, opposed to the tritone of the first part,) the effect is more sonorous. The music does not retire from this extension of the fan as before; it 'resolves' and relaxes on a triad, from where the largest, most complex expansion begins, extending over almost three octaves of the keyboard. When nearly at the extent of the expansion, three-note groupings replace the five-note, resulting in the baring of sound; the distance in range between the two bands is exaggerated, and the texture becomes tighter and more insistent as are more frequently repeated. It resolves again as before, but retaining tension using the octave plus the minor seventh. The right hand remains in the high exposed region with a tense trill, leading into a transformation of the very beginning. The minor third appears again in the higher register, and is distorted by the entry of the left hand, a minor third one semitone lower. Gradually, the web widens, and closes by playing itself out at the very extreme of the instrument, emitting a feeble series of electronic-like bleeps.

One may see from the diagram below that the piece is symmetrical:

(26) See page 4
(27) See page 5.
This mesh gives out a pulse of its own as new configurations of notes come in and out of phase with any sort of regular pulse. This gives the impression of a superimposition of different speeds that continually intrude upon each other. The speed of the piece in addition to the mechanical clatter that is obviously very much a part of the overall sound, gives the piece a feeling of power and invincibility, in addition to the mesmerising effects of the more complex combinations of notes. As in Nouvelles Aventures, time passes slower during a period of regularity, but much faster during gradual changes in events — rather like a conventional sequence or crescendo.

Both Continuum and Lux Aeterna are interesting for their harmonic sensitivity and more important, for their essentially harmonic backbone of construction. Both contain a static and exposed central harmonic point that acts both as a pivot point and as a means of relaxation and orientation. In both cases, Ligeti uses a triad, major and minor respectively. This momentary stillness also behaves as an impetus, a starting point for the next stage of micropolyphonic activity.

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(28) Continuum; see bottom of page 6.
Lux Aeterna; see H bar 90.
Therefore, four types of music have been explained — Static, Repertoire or Fragmented Jointed, (with its 'kaleidoscopic' extension), Micropolyphony, and Mesh music, and how some are part, or extensions of each other — micropolyphony, static and mesh for example, in the case of Continuum. Examples have been given to try and demonstrate these types, and how they work in pieces that are generally governed by each particular type.

In his later works, Ligeti proceeds to combine these types more and more, particularly in multi-movement works, of which there were none (after 1956) before the Requiem, completed and revised in 1965. These works, including the Requiem with four movements, the 'Cello Concerto with three movements, the Quartet with five movements, and the Wind Quintet which has ten pieces, necessitated the development of overall formal techniques in order to govern the four existing types of music that wrote. The three basic formal ideas, which will now be discussed, may be seen to have already taken shape in the earlier works, as they are very much linked to, and developed from his own types or styles of composition. In discussing his treatment of construction (29) Ligeti examines the very roots of his own compositional process, and analyses in great detail the transition of initial musical inspiration to its conclusion in what he calls musical "Verknupfungnetz", that is, the knotting together of different mesh to form a cohesive whole. Although Ligeti acknowledges that the two processes are distinct from each other, he also stresses that inevitably, the interaction of both concepts is liable to provoke reactions or awakenings between them, adding to their transformation from musical raw state (30) to its expression.

It is a relief to see a correlation between what a composer does, and what he thinks he does. The three overall concepts of musical form may be seen to grow out of his four basic types of music. The first, concerns the interpenetration of masses of varying densities, the second, syntax structure, and the third, by no means the least important — the manipulation of experiential time. An ideal work for the illustration of overall form and its separate components, is the second String Quartet, a masterpiece in its own right, as well as being a suitable subject for analysis. The Quartet represents Ligeti's maturity of style, and his use of the string quartet medium may be seen to follow in the tradition of that ensemble. Ligeti refers to several works that influenced him — Beethoven's Late Quartets, particularly opus 130 and 132, Mozart's Dissonance Quartet, Bartok's fourth and fifth, those of Schoenberg, Webern, and Debussy, and most particularly, Berg's Lyric Suite. His reference to this tradition is not directly quoted; he aimed more to recreate the 'aura' by means of fragmentary reflexes, or of expressive gestures.

(29) As 11
(30) "raw state" is his own description, meaning music as yet unprocessed by the mind.
and sound characteristics. It is by no means representing a desire to commune with tradition, but is more an arrival at similar expressive qualities using comparatively new effects, and blending of materials. Berg's Lyric Suite, for example, reflects in many passages, if not throughout, the melos of high lyricism belonging to the Late Romantic period, as well as by the quoting of passages from Tristan and Isolde, which results in the type of musical nostalgia to be found in his style. Ligeti recounts this nostalgia, in addition to that of earlier periods, but his tale ends in the future.

The first movement is concerned with the alternation and juxtaposition of two basic ideas, a static element as in the long held chords or gradually changing chords or fluttering tremolos, and slithering chromatic runs or leaps. Here, the idea of interpenetration of these sound masses, and that of syntax structure, is at one for the most part, as these ideas are locked together often by means of the retention of a previous idea. The movement begins after a notated silence, when a single pizzicato note, the only one in the movement, articulates the beginning of the long held tremolo on a harmonic. Gradually, the other instruments join in with whispering, shivering tremolos on harmonics, blending imperceptibly and causing the span of sound to fluctuate in a way reminiscent of bird calls. The texture is broken twice in this section to expose the long note characteristic of the very opening, that is present nearly all of the time. A climax of effects and the building of tension suddenly breaks into the next musical idea, related by irregular note patterns. This is joined to the third idea; the same static chord of Lux Aeterna appears. A pedal note is introduced at this point, and remains, tying this section to the return of the previous one. The addition of a pedal note in the first violin, acts as a jointing element to the next static chord. These two sustained notes act as a kind of framing device or static reference to the turmoil of quiet movement in between. The notes are organised according to free 12-tone patterns into an organised chaos of conflicting, phased patterns. This section comes to a sudden end, leaving the violin solo to melt into the harmonics of the other instruments at the second static chord.

So far then, the pattern could be seen as —

| Static Held notes + tremolos | Chromatic Runs | Static Chromatic Runs + Static | Static Chromatic Runs + Static |

(r)
changes to finger-tapping, causing a pitched, percussive noise that also permits the fast change to arco at bar 30, where a slithering contrary motion run serves as a jointing passage to the central section. Fragmentary jitters are bound to what amounts to a reversion of the first section. Loud pizzicati reappear, and assert rhythmic order, to end on a unison pitch and rhythm. The movement's use of comparative register and texture recalls the Continuum. The overall form of the movement suggests a scherzo and trio, and all the excitement and emotive association that go with it.

(z) The outrage of the fourth movement reflects both humour and intense passion. Like the first piece, it consists of a static element — using the same chord from Lux Aeterna, and intense complex movement. The latter grudgingly and brutally presents a disfigured Ländler, with severe bow attacks, and use of often multiple stopping. The effect is crazed, delirious, and very humorous in a tense, neurotic way, particularly at the end, where extreme brevity of bow stroke in a recognisibly rhythmic passage almost shouts 'You want a rhythm? You got one.' This vulgarity is relieved by the serenity and harmonic control of the static periods, that grip the listener in their suspension of time (especially bars 29-33) and which try to force the irregularity and violence to submit. The result is even more outraged than before; the four parts buzz furiously, swarming for the final attack (bars 37-50). A feeble attempt to reconquer at bar 43 is ignored, resulting in what almost seems to be a parody of the tranquility at bars 48-51. Bars 51-55 show how this formerly sonorous idea has been transformed into a high whine, before punchy bow strokes begin their mimicry of rhythm.

The final movement is remarkable for its recollection and transformation of material from previous movements, particularly the first three, which necessitate recollection by their distance at this point. In doing this, Ligeti not only unifies the piece, but attempts to reduce the period of time between the beginning and end by confusing the listener into becoming increasingly familiar with what appears to be different music. The ethereal, misty and evocative mood recalling Atmospheres and Lux Aeterna, provides a backdrop onto which memories, like dream sequences, are projected. The finale begins with a transformation of the mesh music or micropolyphony of the third movement, gradually broadening and becoming more complex until the texture clears at the introduction of the pedal points at bar 12 (v). The use of a fifth in the pedal point recalls that of the first movement (bars 28-32) in its harmonic implications. The arpeggiated patterns that appear above it, are an almost classical reworking of the bars 72-76 also in the first movement. (See example (w) for these comparisons). Gradually, the movement, hitherto continuous save the 'cello, winds down into a static chord so typical of this quartet, and many of his other compositions. The 'cello and the second violin then proceed to penetrate this texture, with a unison chromatic scurrying, reminiscent of the unison passage in the first movement at bar 69. This gradually funnels into a sustained tremolo like that of the very beginning of the quartet, around and between which solo cadenzas of flageolotto harmonics flutter. These are almost conversational
in character; each shape is imitated, inverted, sometimes both, gradually coming closer and closer together to form a speech of simultaneous cadenzas, narrowing to a monotone on one note. The deviation from this, together with the trills is similar in texture to bars 21-26 in the second movement. From this dark, dense sound, springs a short spontaneous and very lyrical passage that instantly recalls the harmonic and emotional melos of the second movement of Berg's Lyric Suite. This disappears as elusively as it began into the false 'recapitulation' of the opening, that cannot help but evoke the third movement of the Lyric Suite after the previous reminiscence, as well as recalling the bars 43-9 of the first movement of this quartet(x). This continuous motion is fragmented this time in a smoother interpretation of bars 30-34 of the third movement; this also allows consistency within the movement, repeating in essence bars 14-17. However, instead of continuing to develop as before, the music is bound together by the return of the static element. Essentially harmonic pedal points remain until the last three notated bars, and the demisemiquaver intervallic trills of the opening are stabilised. The pedal note as a final gesture, recalls the chromatic theme of the first movement in its drop 59-62. The harmonic sensitivity, and aura of the last 20 or so bars, is particularly extraordinary in the progression from one tonal area to another. Gradually, the chordal trills and pedal point become a unison(73-4), then resolving onto the D sharp and F sharp. Finally, the piece evaporates from glissando-like runs. The reference to tonality adds to the pervading tension, and arrestment of time, that is perfected by his choice of means — expressionless, calm harmonics accompanying the glittering trills in a unity of sound perhaps unmatched by that of the string quartet.

The finale manages to recreate music of the other movements, but in such a way that remains faithful to its own formal integrity. The movement stands very well in its own right, as well as providing a contrast, and in many ways, a musical and emotional solution to the whole. The material used, is made to seem homogenous. The motoric and static qualities interlock, interpenetrate, or juxtapose in syntax, in a way that emphasises this; the end of a passage is very often the beginning of another, or in the case of a juxtaposition, (bar 41 for example) serves to contrast or enhance musical effect.

(31) The form simplified below, is seen to be symmetrical — or it may be that the second half is a variation of the first. Similar examples of this variation technique appear in the 'Cello Concerto and in Apparitions, as have been previously mentioned. The finale might also be considered to be a fantasia or cadenza based upon the previous movements.

(31) See Over-leaf
Motoric Idea → arpeggiated forms → Static → Tremolo Cadenzas → Unison
Deviation

Motoric Idea → fragmentation of → Static + Tremolos → Unison → Deviation
arpeggiated music

Description of Formal Balance: String Quartet no. 2
In examining Ligeti's musical development, one recognises certain tendencies in his style of writing that border upon the cliché. Take, for example, his use of the three note chord from *Lux Aeterna*, which reappears frequently in the second String Quartet. The combination or interpenetration of this static harmonic element with micropolyphony, is seen to increase as his composition progresses. One could accuse him of retrenching from his early works, that were as remarkable in their individuality and innovation, as they were extraordinary for a man of over thirty years of age, a comparative newcomer to the Western musical world. Nothing as 'new' has entered into his composition since then, but as Ligeti himself says,

(32) "At one time I wanted to write 'new' music, which I did. But one wants to go further. In my 'Cello Concerto I looked backwards in the first movement to *Lux Aeterna*, *Atmosphères*; and Lontano too is evident in its use of static form. In the last three to four years, all my pieces allude to tradition...The same applies to my String Quartet, especially the last movement...It is a little homage to Bartok, not in the musical style, but in the context...I remain true to the use of colour, micropolyphony, complex networks, that somehow sound more complex than the big orchestral networks that I have written. I must say, the String Quartet was the most difficult of my compositions to write, to this date."

The appeal of his music is perhaps caused by the emotional content, or the emotional response that it demands. That word 'response' is important. Ligeti was interested in audience reaction, which caused him to write provocatively at certain points. The two Aventures, and particularly "Silent Lecture" of 1961, where the music lay in the reactions of the audience to scandalous writings on a blackboard, demonstrate his inclusion of humour (whether ironic, malicious, or just plain funny) with every other emotional experience in his music.
Ligeti's close contact with the music of Kagel, Stockhausen, Boulez, and others through the Darmstadt courses, and through personal contacts, made him fully aware of their own methods. Their influence on his music did not, however, extend to his choice of largely conventional means of musical expression. His innovations of form and style were such that they took advantage of these conventional means, giving them not only a new lease of life, but new opportunities and directions.

It is this result that Hans Keller discusses in his article entitled 'The Contemporary Problem' (33). Although he remarks that there is strictly, nothing 'new' that the composer may write, he agrees that some merit must go to a composer who continues to pose The Contemporary Problem on a strictly musical plane, that others have abandoned.

CATALOGUE of WORKS

SELECTED BIBLIOGRAPHY

SELECTED DISCOGRAPHY

APPENDIX I

APPENDIX II  MUSICAL EXAMPLES
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ARTIKULATION 1958
APPARITIONS 1958–9
ATMOSPHERES 1961
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POEME SYMPHONIQUE 1962
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NOUVELLES AVENTURES 1962–5
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'CELLO CONCERTO 1966
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CONTINUUM 1968
STRING QUARTET No. 2 1968
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CHAMBER CONCERTO 1969–70
MELODIEN 1971
HORIZONT 1971
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Appendix I

Percussion instruments include:
1) A suspended carpet (to be struck with a carpet beater)
2) A tin can (to be smashed with a large flat hammer)
3) A suitable, highly resonant piece of wooden furniture e.g. a small cupboard or a chest made of hard elastic wood
4) Several kinds of paper, including tissue paper, newspaper etc. to be torn and rattled
5) A plastic cup, which makes a hard cracking noise when crushed
6) An inflated balloon to be stroked with a wet finger
7) A large toy tin frog which makes an especially loud noise; if the noise is not loud enough, it can be amplified by pressing the tin frog onto a suspended cymbal
8) A metal tray piled high with dishes (to be smashed)
9) The percussionist must wear shoes with leather soles (he is instructed to walk from certain instruments to others)
Clusters with variable durations. Fit movement to notated form.

Clusters with internal chromatic variation or motion. Fit movement to notated form.

Gradually increase or decrease clusters.
(e) cont.  

Senza tempo  
ca. 4'  

4 A tempo  
$\bar{4} = 40$

Fl

Cor

Cemb

Pf

Senza tempo (unter Einmischung angesehen)

Fetzweck und Fetzweck

simile

sehr tief möglich

arco con sent.

senza corda

ppp tenuto

ppp tenuto

ppp tenuto

ppp tenuto

ppp tenuto
Senza tempo

A tempo:

Piu mosso

\[ d = 80 \]

sempre \( pp \)
plötzlich aufhören, wie abgerissen
(ausser "Echo": Fl, Vc, Cb)

Tempo primo:

Sop., Alt, Bar.: sie hörten bis Takt 26
dem Hör-Echo zu.

Tenor (nur einmal) aufblasen: aufhören wenn die Luft ausgeht.
Nouvelles Aventures

4 (Communication) 84
Sup. Abc. Bar. durch Röhren hindurch sprechen.
A tempo um die Stimme zu dehnturieren (Chohl!)

Poco misterioso

Eins. Albo. Bar. stehe überwiegend
durchgehend. Auch
Stellen sollen mit leiser
seqm. Metaphoria stets intensiv
Die ganze Sicht
was mit unserer
zweiten vorhanden
folgende angegrenzt.

A

B

geometrische Sätze mit
größeren Stücken geordnet.

S

F

geometrische Sätze mit
größeren Stücken geordnet.

A

B

geometrische Sätze mit
größeren Stücken geordnet.

S

F

geometrische Sätze mit
größeren Stücken geordnet.

A

B

geometrische Sätze mit
größeren Stücken geordnet.

S

F

geometrische Sätze mit
größeren Stücken geordnet.
(Der Ton geht anmerklich in den Cello-Flaggeleit auf)

p legato (ma senza portamento)

(tool, das tiefer das nicht ausführbar sein, wird es von einer Octave höher geblasen, 
(jedoch ohne Zeichen p. d. sämtliche andere Töne bleiben)

**A

my-

lax-ny-
v1

**B

my-
lax-ny-
v1

Picc

Cor

Cel

Vc

Ch

ohne

Subito:

Agitato molto

$\text{d} = 40$

weitere Fortsetzung

Cello

ohne höfischen Schlag

(p)
Nouvelles Aventures

33
Senza tempo, ca. 5"
(gleichsam versteinert)

2
j = 40
Subito: A tempo; quasi meccanico

(Gleichsam versteinert)

34

35
Senza tempo, ca. 8"
(gleichsam versteinert)

36
Subito: A tempo; prestissimo pianissimo & misterioso

37
j = 120
Wie ein Hauch, hastend: sehr präzise und gleichmäßig spielen, als wäre das Instrument ein einziges Instrument.

38
Vollkommen eigentümlich, ohne Anfugung einer Taktmarkierung!

Piano

Horn oder k's Lauten Register
(Copp.) Comb

(geheilt)

(hier ist der Absatz fortlaufend)

(rechts ist der Absatz fortlaufend)
Nouvelles Aventures

Senza tempo, ca. 15'', gleichsam versteiert: der Atem stockt.

Fl. picc. muto in Flauten
(am besten während Takte 41 oder 44)

plötzlich aufhören, wie abgerissen (akzentlos!)

Rollen von den türf en Sacken Wegnehmen (am besten während Takt 41)

sofort abkämpfen

Subito: A tempo

J = 60

plötzlich aufhören wie abgerissen

Senza tempo, ca. 10''

aus gleichsam versteiert: der Atem stockt.

* Sop., Alt., Bar.:  
  1 = sofort erschrecken, als ob man etwas Unangenehmes  
  2 = mit grösstem Entsetzen

  3 = mit allergrössten Angst
  4 = rücksichtslos
  5 = plötzlich aufschreiend
  6 = weinend, sehr intensiv (beliebiger Vokal)

** TABLETT (Metall)
mit viel

GESCHIRRE
mit aller Kraft hinabwerfen (etwa auf die bereits verwendete Eisenglasplatte). Nach dem Fall einen Natschlag von zerbrechendem Geschirr.
Nouvelles Aventures

[Sopr., Alt, Bar.] Immer intensiver hinzunehmen; gleichsam in tiefester Verzweiflung, vergeblich um Hilfe mutend.

\( \text{roll.} \quad \text{sin a} \quad \text{d=40} \)

\[ \begin{align*}
\text{(cresc. molto)} \\
\text{S} \\
\text{A} \\
\text{B} \\
\text{C} \\
\text{D} \\
\text{F} \\
\text{Pf} \\
\text{Pt} \\
\end{align*} \]
LUX AETERNA

György Ligeti

Sopran
Tenor
Bass

Imposante, MOLTO CALMO, WIE AUS DER FERNE

stets sehr weich einsetzen / all entries very gentle

Sopran
Tenor
Bass

Sechs vollkommen akzentlos singen: die Takttreue bedeuten keine Betonung.

Sing totally without accents; barlines have no rhythmic significance and should not be emphasised.
Where lines are omitted, no change occurs.

+ indicates introduction of a new note, or, where appearing after a bracket, the re-introduction.

(-x) indicates that he no longer uses the note in the bracket.

@8oe indicates the top A one and a half octaves above middle C; one octave above their previously used.
Bassisten, deren Falsetto besonders gut ist, oder auch nur 3 Soli intonieren. Wenn nötig, kann das hohe Falsetto von einem Tenoristen intoniert werden.

In diesem Fakt übernimmt in den Takten 13 das Tenor 1 bereits am Ende des Taktes 36 - morendo - mit unmerklich einsetzen und dann das Falsetto übernehmen.

Das wechselt nicht unangenehm, aber und es ist wahrhaftig, dass im Chor nur 4 Tenoristen, soll Tenor 1 bereits am Ende des Taktes 36 - morendo - mit unmerklich einsetzen und dann das Falsetto übernehmen.

Die Sätze, die von einem Tenoristen intoniert wurde, sind in den Takten 13 und 14 noch nicht vollständig. Weitere Details sind im Text Gesang und Interpretation in den Takten 13 bis 18.
sten sehr weich einsetzen

all entries very gently (ppp sempre)

Litolff / Peters

50384
Prestissimo *

* Prestissimo = extremely fast, so that the individual tones can hardly be perceived, but rather merge into a continuum. Play very evenly, without articulation of any sort. The correct tempo has been reached when the piece lasts less than 4 minutes (not counting the long fermata at the end). The vertical broken lines are not bar lines — there is neither beat nor metre in this piece — but serve merely as a means of orientation.

B. Schott's Söhne, Mainz, 1970
Quartet no. 2

(very even, without accentuating the bar subdivisions, would give the impression of a bar no longer being created.)

**Notes:**
- In this movement (b. 1-12) are valid for the whole bar, unless changed.
- The written-out gestures (9-10 - 12) are approximations; the groups of 9-10 etc. must be played with no accents, the result being a gradual change of speed, the related rhythm must not be taken literally. This applies to bars 8-10 and all analogous passages in the movement.

**New slower tempo begins to dominate texture.**
Presto furioso, brutal, tumultuous *)

4) Staccato (sempre staccato)
4) Staccato (sempre staccato)
4) Staccato (sempre staccato)
4) Staccato (sempre staccato)

*) This movement is to be played with exaggerated haste, as though crazy and intense for a few pp passages with the utmost force. Press the bow strongly on the strings (scratching sound). If the movement is played properly, a lot of hair will be lost by the end.

 Tempo changes, dynamic contrasts: always abrupt, as though a succession of fragments, but always without a concertante.
Anweisungen
tu den
cadenzartigen
Figuren
siehe
letzte
Seite.

B-
'8
'gilt
stets
für
die
Tonhöhe,
nicht
für
den
Greif.

Poco
a
poco
senza
tempo

Senza
tempo"
Prestissimo
possible

POLO

B-
'8
'always
applies
to
the
pitch,
not
to
the
fingering.