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ABSTRACT

György Ligeti's music underwent a change of style at the end of the 1960's. There was an apparent exhaustion in the syntax of musical elements and their transformation in his works. New elements appeared at that time, and some became less defined. In the oeuvre of a composer whose works share transformation similarities, memory (and musical memory) may be used as a parallel to grasp his musical thought and its evolution.

LIGETI'S MUSIC, AESTHETIC AND TECHNIQUE

György Ligeti (1923) is now a well-established composer; his music is often performed and recorded. He is considered an important musical figure in the second half of the twentieth century. However, although his aesthetic ideas and methods present very interesting aspects, his music is nevertheless difficult to analyze.

Some of Ligeti's large scale works resemble one another closely; the elements (the single components which, in combination, produce textures) and the shapes forming his music are also very similar, and in some cases identical; i.e. the form of the *Double Concerto* (1971-72) and the *Cello Concerto* (1966) and *Apparitions* (1959): all of which are cast in a two-movement (slow-fast) mould. Similarly, *Lux aeterna* (1966) and *Lontano* (1967) begin both with unisons that subsequently fan out into chordal fields.

Some descriptions by Ligeti of elements and transformations used in his music are:

> "Sound-fields and masses *that flow together, alternate with, or penetrate,* one another; suspended nets *that tear or become knotted;* damp, viscous, spongy, fibrous, dry, brittle, granulous and compact materials; threads, short flourishes, splinters and traces of all kinds; imaginary edifices, labyrinths, inscriptions, texts, dialogues, insects, *conditions, occurrences, coalescence, transformation, catastrophe, decay, disappearance;* all are elements of this non puristic music" (1) (My italics)

These descriptions provide a tool to understand Ligeti's music: transformation and process are very important factors in all his works.

Ligeti described his orchestral piece *Atmosphères* (1961) in the following terms:

> "The formal characteristic of this music is that it seems static. The music appears to stand still, but that is merely an illusion: within this standing still, this static quality, there are gradual changes". (2).

This description can be applied to the works of his first mature period, where there is only one type of texture: very dense contrapuntal interweaving of instrumental parts; in other words a sound "mass" which evolves through several successive states.

In this early period, Ligeti did not work with melodic motives, themes or reexposition of material. The sound mass changes in a very continuous way from the microscopic point of view, whereas on a higher formal level some of the textures change into each other abruptly. Discontinuous change inside these textures is introduced later in works like the *Second String Quartet* of 1968.

Also, since almost all elements are present in each subsequent work, the compositional technique used to generate them is the same: a dense interweaving of voices in a polyphonic framework, which has been termed "micropolyphony" by Ligeti. This micropolyphonic technique is based on the mastering of academic counterpoint and tonal harmony.

> "You hear a kind of impenetrable texture, something like a very dense cobweb. I have retained melodic lines in the process of composition, they are governed by rules as strict as Palestrina's or those of the Flemish school." (3)

In this quote Ligeti is describing the melodic construction of his works of the middle of the 1960's, i.e. *Lontano* (1967).

It is important to point out that, in spite of this academic technical approach, Ligeti's first works of his mature period (beginning of the 60's) are very innovative.

> "...my ambivalent attitude to tradition: denying tradition by creating something new, and yet at the same time allowing tradition to shine through indirectly allusions, that is essential for me. In *Atmosphères* for example it was Debussy to a large extent, in *Lontano* Debussy too , but perhaps more the late romantics who shone through.(4)

And

> "....I abandoned structures conceived in terms of bars, melodies, lines and conventional forms. In this respect my first orchestral works, *Apparitions* and *Atmospheres*, are the most radical. *Atmospheres is just floating, fluctuating sound, although it is polyphonic."* (5) (My italics).

In spite of all these factors mentioned above, Ligeti's compositional technique does not seem to be very systematic: even though he sometimes resorts to melodic canons his style is resistant to analytical investigation. In contradistinction to some of the "serial" works of the early 1960's (i.e. Stockhausen's *Kontakte*) the group of techniques employed by Ligeti does not refer in its totality to an overriding general principle.

Ligeti speaking of his technique says:

"......working less and less with a predetermined repertory of elements, but rather with predetermined syntactic systems or with linked networks ....
...while what was originally the second phase, the setting up of a musical syntax, has taken over the main role". (6)

In other words, transformation is more important than the specific elements presented. As will be shown later, *Melodien* adopts a different approach to the question of syntax, the elements becoming again significant and individualized contributors to the discourse.

This processual approach incorporates forms of a certain "temporal" thinking which is typical of the twentieth century. The way contemporary humanity assimilates and re-orders sensorial information has undergone many changes during the recent development of transportation and information transmission. Also, our understanding of the mechanism of memory has deepened. Psychoacoustics and the psychology of music have developed considerably in the last decade. These sciences have concentrated mainly on cognitive processes, the exercise of musical skills, as well as emotional responses to music. John Sloboda has written several articles about memory, psychology and music; his article *"Music and Memory"* (the point of view of the psychologist) deals with several types of memory (long term, short term and semantic memory) and how these are related to music and musical creation.

On the semantic memory:

"What is transmitted to the long term memory is not the exact physical stimulus, but a semantic clue which serves to identify the signification of a given stimulus in a broader context.
This idea has convinced a good number of psychologists, after Barlett (1932) of the necessity of insisting that *the remembering of a meaningful fact is a process of reconstruction instead of one of replication.* This fact has been demonstrated in several contexts, including those from the laboratory (Brandsford, 1980) and the court". (Neisser, 1981). (My italics) (7)

.”...finally, it is very clear that the semantic representation of any complex phenomena, i.e. a music fragment or a scientific theory, deals with the decomposition of this phenomena in related components. This decomposition represents an important part of what we call "understanding".(8)

"....somehow a *dictionary of elements is acquired* which serves to reconstruct the different areas of the universe we live in. Like a major part of the semantic memory, this container is not transparent to the deep analysis. It operates within its own laws. The existence of some such catalog seems to be the fundamental fact in any creative activity". (My italics) (9)

We remember meaningful things because they are already present in the long-term memory. The example given by Sloboda suggests that the typical listener

tends to remember tonal music more readily because of his familiarity with the conventions of such music from childhood.

The "memories" are transferred to the long-term memory in the following manner: the long-term memory "looks" inside the short-term memory in order to find information which can relate to the information already assimilated by the long- term memory. Remembering is a process of recreation, not one of replication.

Ligeti's memory always tends to "remember" the same thing (the same elements or objects and their evolution); however, his memory always "recomposes" the elements. They are presented always a little differently from their imaginative roots in the composer's mind. This explains why Ligeti always seems to be writing the same musical passages again and again. In Ligeti's long-term memory, the characteristic formal markers (i.e. unisons to separate or end sections; continuous transformation of one element into another) are probably contained there, whereas the individual elements function at the level of the short-term memory; they can change, but always against the background of the processes contained in the long- term memory.

This paper will examine some of the stylistic changes that had occurred in Ligeti's work after the culmination of his "exuberant" (10) period, which took place in the mid 1960's and contains works like *Lux Aeterna* (1966), *Lontano* (1967), *Ten Pieces For Woodwind Quintet* (1968), the *Second String Quartet* (1968) and the *Chamber Concerto* (1969-70). These works are characterized by notable textural clarity, and the polyphonic fabric that generates them is less dense than in the works from the early years of the decade, i.e. *Atmosphères* (1961) and the *Requiem* (1963-65).

The most crucial work in this change of direction is *Melodien* (1971), which assumes an important role in the understanding of those apparently more continuous and seamless qualities usually associated with this composer's music.

MELODIEN

The instrumentation of *Melodien* (melodies) consists of flute, doubling piccolo; oboe; clarinet; bassoon; two horns; trumpet; trombone; tuba; percussion: three timpani, xylophone, crotales, glockenspiel, and vibraphone; piano and celesta and strings, either solo voices or string ensemble.

According to the performance notes there are three layers of melodic activity each delineated by a typical dynamic level. The composer speaks of background (long sustained tones) middle ground (subordinate, ostinato-like figurations) and foreground (melodies and shorter melodic patterns).

The polyrhythmic melodic and ornamental linear strata are reduced as it were to a common denominator, being notated for all their diversity, in a common meter.

The work consists of nine long sections fading into each other, whereby each section comprises a processual change: an element is presented, then gradually transformed until a formal marker appears (i.e. sustained tones).

The following descriptions of individual sections will serve as a basis for the closer examination of several fragments of this work.

First Section

The overall tendency of the first part is characterized by a *rallentando* quality. Rhythmic activity, pitches, and instrumental lines decrease, whereas register contracts from a range of some two octaves to no more than a major third. In other words, the density of events in all parameters diminishes in an even manner. The opening ascending scales remain predominantly chromatic (although some wide steps are presented in the middle of the passage). These constitute the only component that does not change until the very end of the process, which occurs in m.13. Foreground melodies are heard in trumpet and trombone; background is represented by the double-bass; and the rest of the instruments play in the middle plane.

In this first section, the syntax (i.e. the transformation process) functions somewhat as follows: the chromatic ascending lines are transformed into, long sustained tones, the concluding thirds then signalling the conclusion of this operation. This changing of melodic into "chordal" texture (or viceversa) is typical of several previous works. *Atmosphères* presents a transformation of sustained tones into micropolyphony; the second movement of the *Chamber Concerto* the melodic texture turns into sustained tones. The ascending chromatic scale element, however, although in itself a very simple concept, makes its first appearance in *Melodien*. In contrast to many earlier works, the individual characters of the participating instruments are relatively clearly audible.

Second Section

This passage starts with the third F-A, mentioned above, and is characterized by a subsequent registral descent and an accumulation of new pitches and instruments. Rhythmic articulation is very even, produced by a scheme in which eighth notes quintuplets appear in one line, sextuplets in another line, i.e. each subdivision category being isolated in a single line. The whole has a contrasting tendency with respect to the first part (i.e. the first part goes up in register, the second one goes down), but here the articulation is more mechanical, less flexible. Only the middle plane and background are represented. It might be argued that this section represents a temporally expanded memory of the first part (11)

Third Section

By mm. 27-29 the middle plane melodies become diffused, losing their specific character and turning into background sustained tones. There are no longer "mechanical" (12) melodies, but new melodic forms containing quintuplets followed

by triplet subdivisions. They are generically very close to the micropolyphonic type of line encountered in previous works.

The most interesting aspect of this section is how the mechanical type of melodic articulation subtly changed into cluster-like texture. The transformations of the first section are very clear, i.e. increasing or decreasing the relative weight of particular elements. In this section the process of transformation seems to be interrupted or at least "masked" because of the changing from middle plane into background, of the mechanical type (mm. 27-28), although rhythmical values increase in a linear, almost imperceptible fashion.

At the end of this section ornament-like melodies (foreground) appear in some instruments, whereas background sustained tones are still prominent. The foreground elements emerge and disappear very rapidly and, because of their rhythmic values, they are related to the mechanical type of melody with which this section began.

Fourth Section
The previous section ends with a chord in the piano (m. 45), whereas the fourth section starts with foreground ornament-type melodies and middle plane ostinatos. These are composed of repeated three- or four-note groups and irrational rhythmic subdivisions for each line remain constant. Also, background sustained tones are present in the high register, while the repeated melodies here gathered in the low. The descending tendency is again manifest, especially apparent in the ostinatos. This section ends with a brass-woodwind chord in m. 57.

Fifth Section
In this section the texture is mainly static-chordal, composed of long sustained tones; foreground is represented by the horns in mm. 62-64; here a solo by the tuba is featured, whereas in the strings even value-melodies resembling the type used at the beginning of the second section also make an appearance.

Sixth Section
A FFFF gesture in the doublebass sets the sixth section in motion, leading to a unison on C in all parts with different subdivisions in each line. After the unison is dissolved (m.76) the texture becomes very complex: several types of melodic characterization used in *Melodien* are presented simultaneously for the first time: ostinato-like figurations (pizzicato is used in the strings), ornamental, and sustained tones. The middle plane ostinato-like melodies are more prominent than the other types.

The sixth section ends when chordal textures appear around mm. 94-95. This type of texture is similar to those formed by micropolyphonic techniques. Again, the transition from an active to a static texture takes place almost imperceptibly.

Seventh Section

The melodies of this chordal texture are all foreground, and are also character-ized by synchronous exchange of pitches amongst several lines. This is the opposite of micropolyphony, where every line is as rhythmically independent as possible from all others.

In m.107 an element used in several works appears: very fast arpeggios in the string section. This element was used in the *Chamber Concerto* and the *Second String Quartet*, and is an example of a "remembered" element. The middle plane is here very prominent.

Glissandi in the brass trigger all textures, and the chromatic ascending scale predominates including interpolated short value tones in Sffz.

Eighth Section

There are many parallels here to the beginning of the piece, in that chromatic ascending scales are featured in all parts. Even the **rallentando** tendency is rep-licated. One difference from the beginning is that thirtysecond-notes values (eight subdivisions per beat) are very prominent in all lines, before the **rallentado** occurs. This is probably the closest thing to a reexposition of a passage in the same piece in Ligeti's entire mature output. However, the reexposition is sig-nificantly denser than its parent passage.

Ninth Section

The texture reactivates suddenly in m. 127, using fast sextuplet groups in FFF and some sustained tones in the foreground. The tendency, again is towards deceleration and the texture is getting less dense. Some ornamental type melodies are present here; however, the sustained tones type predominates until the end, which features long tones in extreme registers. This latter is also one of his most frequently employed formal markers, it is present in almost all the mature output.

Three middle plane elements will be examined closely in order to determine their construction and function in their respective processual contexts.

FROM SECTION ONE:
MIDDLE PLANE, CHROMATIC ASCENDING SCALE

The non-synchronous flow of the chromatic scale lines produce a "saturated" cluster-like harmonic field; the field changes when wide steps (thirds, fourths) are introduced in the flow. At the same time the number of pitches in every phrase decreases.

The resulting rhythmic "screen" is saturated because of the use of different subdivisions in each instrument and in each beat.
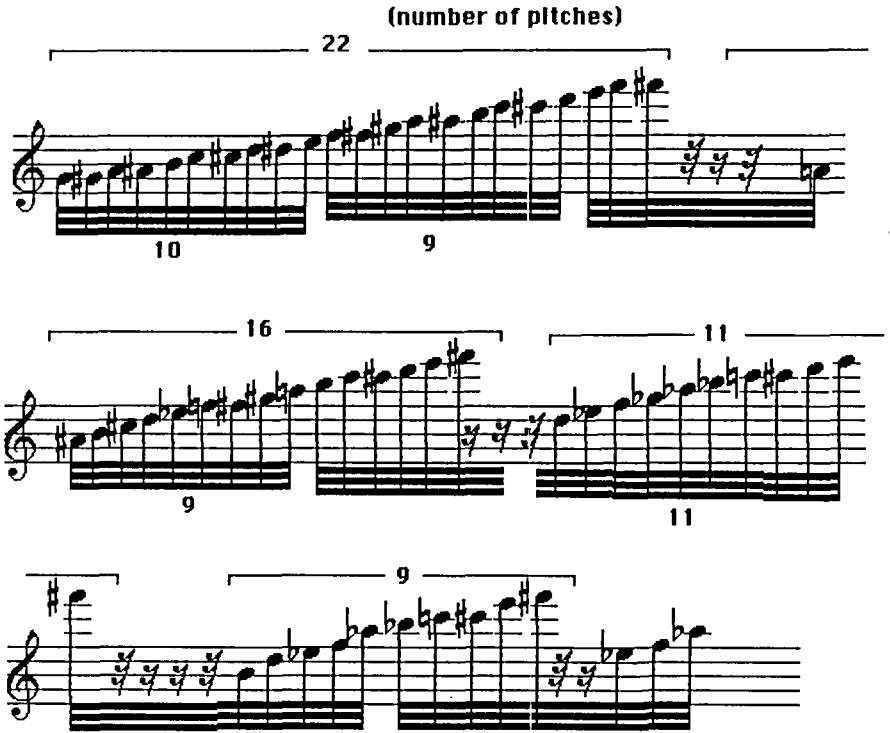
Figure 1. Number of pitches in each phrase, first two measures, flute part.

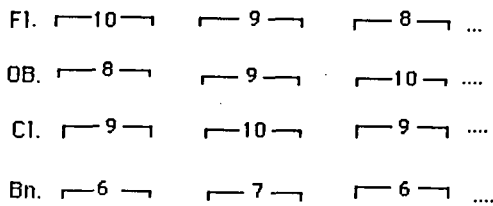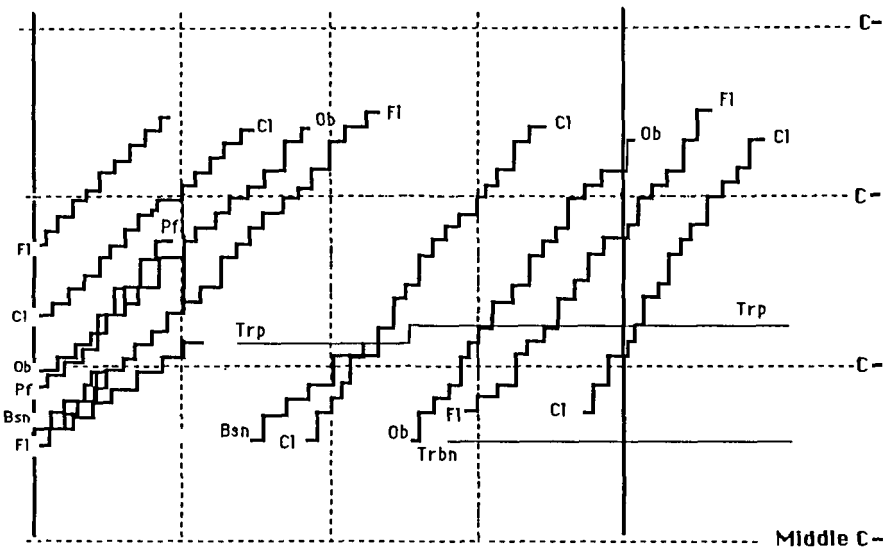| Fl.	⌐—10—⌐	⌐— 9 —⌐	⌐— 8 —⌐ ...
OB.	⌐— 8 —⌐	⌐— 9 —⌐	⌐—10—⌐ ....
Cl.	⌐— 9 —⌐	⌐—10—⌐	⌐— 9 —⌐ ....
Bn.	⌐—6 —⌐	⌐— 7 —⌐	⌐— 6 —⌐ ....

Figure 2. Subdivisions m. 1, woodwinds.

These lines are intervallically very close (the distance between them is a second) to each other, thus contributing to the density and to the overall harmonic equilibrium (Fig. 3).

If we sample vertical sound results from this example, we will see that the density attack remains very evenly distributed. In some earlier works Ligeti utilized a melodic canon structure to achieve this, but the canon was abandoned in the works immediately preceding *Melodien* (the *Chamber Concerto* was the last one which is characterized by canonic micropolyphony, although there are examples of canon techniques in recent works like 1982's *Drei Phantasien* for chorus.). Thus melodic lines still depend on harmony, but they are more flexible than the canonically constructed melodies.

FROM SECTION TWO: MIDDLE PLANE, MECHANICAL TYPE

In this element, subdivisions increase as follows:

Figure 4. mm.25-27, flute part.

The subdivisions increase in density in a strikingly periodical way, whereas the element which appears in m.28 is not characterized by a similar directional tendency. This increasing in speed is characteristic of the interlocking textures produced by polyrhythmic superposition of lines. Ligeti used this technique the *Second String Quartet*, but In *Melodien* the melodic contour becomes more varied and complex, working together with rhythmic patterning to generate flexible and unpredictable linear formations.

FROM SECTION TWO: MIDDLE PLANE, MICROPOLYPHONIC TYPE

Figure 5. Bassoon mm.29-30.

Here, the constant variation of subdivision creates fluctuation, very similar to that characteristic of micropolyphony. Like this latter the element beginning in m.18 consistently avoids articulating the beat by resorting to a high level of syncopation.

Change within the harmonic field is scarce, as can be seen from the graph of this section:
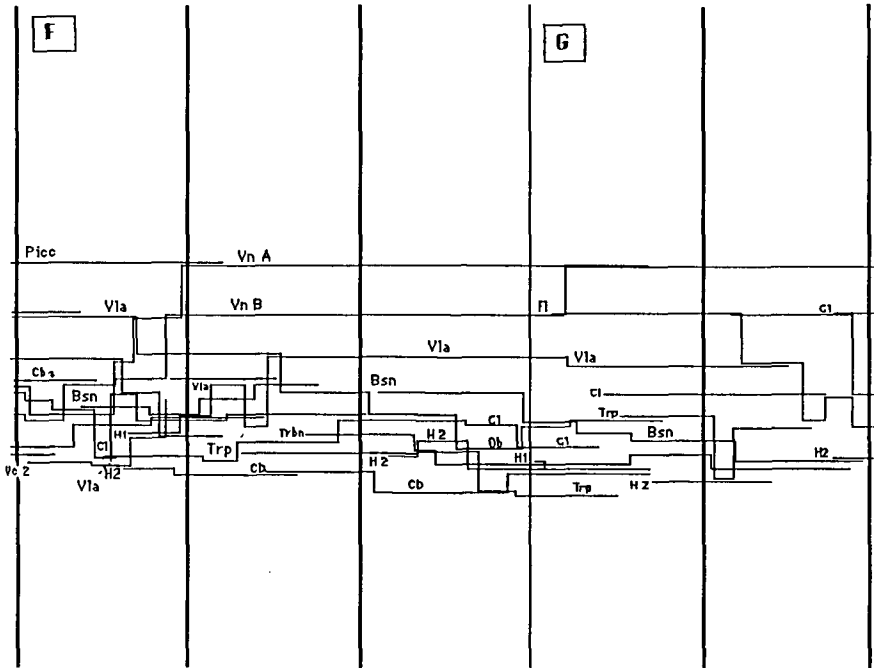
However, the pitch movement of these types' lines resembles a free canon. Technique already used by Ligeti in the *Chamber Concerto*, second movement.

The melodic lines successively include each pitch of the field; when one instrument stops playing, another replaces it.

These three middle plane elements examined exhibit some similarities, they are not very different one from another. While it is clear that the ascending scale is different from the other two, it nevertheless tends to behave in an analogous fashion; For instance, Figures 1 and 4 tend to increase or decrease rhythmic articulation, while the melodic design is repeated with slightly different pitches. The ascending scale (Figure 1) is losing pitches, whereas the mechanical type (Figure 4) is gaining pitches. The micropolyphonic type (Figure 5) represents a more diffused state than the other two, because its rhythm articulation is not

"mechanical" like Figure 4 or continuous like figure 1. Figures 1 and 4 are more characterized than Figure 5, whose type is used by Ligeti in several pieces (almost any of the late 60's). From the point of view of this write, Figures 1 and 4 represent a synthesis between micropolyphony (Figure 5) and the mechanical articulation (i.e. third movement of The *Chamber Concerto* or third movement of the *Second String Quartet*). It also, might be argued that they are one and the same remembered category in different stages of evolution.

Apparently, Ligeti was trying to expand the number of his elements, since the processual dimension (the syntax) had already been over-exploited in his previous works.

Summarizing, *Melodien* presents these new aspects:

1. Instrumental "presence"; the voice of each instrument is used in a traditional orchestral fashion. Each part is more independent, no longer being used to produce a dense mass of sound. (See the foreground type of activity).
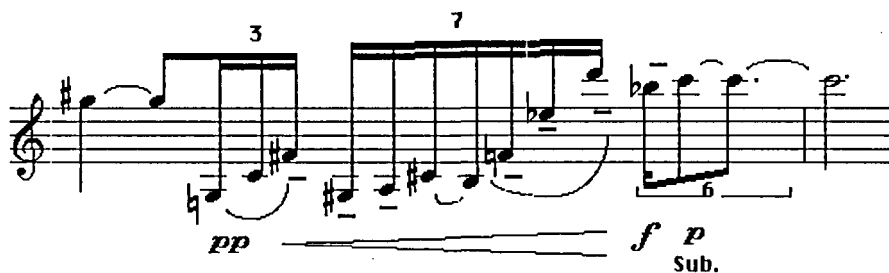

Figure 7. Violin A (solo, foreground), m. 132.

2. Some of the melodies present an even or periodic rhythmic articulation (usually in the middle plane). This is part of the stylistic challenge of revealing specific instrumental sonorities instead of subsuming each part to the mass of sound.

3. The presence of ostinatos (also middle plane). It would seem that Ligeti, in his aim of showing melodies instead of using micropolyphony, felt the need of more types of melodic articulation for his textures. The ostinatos and the periodic rhythmic articulation type are, related to his "machine-type" music, as it were, a natural development of this latter.

4. The ornamental melodies of the foreground form another element that here appears for the first time in Ligeti's music. This type of melody is not related to the machine-type, nevertheless, it seem to be the most important element setting this work apart from others composed in the same period.

5. Finally, in *Melodien* the mechanical-like (interlocked) and the static (masses of sound) are mixed or unified. Previously, the composer worked with these two textures in a linear way, but in *Melodien* they come together, contributing to the all-pervading sense of diffusion or "disorder" in this work.

As was stated earlier, Ligeti was distancing himself from his style of the late 60's, moving gradually towards such a work as *San Francisco Polyphony* (1973-74), in which all elements presented for the first time in *Melodien* are more radically and aggressively characterized. Whereas the constant intermingling of elements in *Melodien* resulted in a certain sense of confusion, *San Francisco Polyphony* succeeds in projecting their innate functional distinctions in a strikingly clear and schematic fashion. The means are identical, the ends could scarcely be more different.

NOTES

1. From Ove Nordwall, Ligeti Dokument. PA Norstedt & Soners Forlag, Stockholm 1968. Quoted in the score of *Artikulation*.
2. Ligeti in Conversation. Interview with Peter Varnai.
3. Ibid.
4. Ibid.
5. Ibid.
6. Ligeti in Conversation. Interview with himself.
7. Sloboda, John. Musique et mémoire.

"Ce qui est transmis à la mémoire à long terme, ce n'est pas toujours le stimulus physique exact, mais un marqueur sémantique qui identifie la signification d'un stimulus dans son contexte plus large.

Cette idée a conduit bon nombre de psychologues, depuis Barlett (1932), à insister sur ceci, que *la mémoire d'un matériau signifiant est un processus constructif plutôt qu'un processus de réplication exact*- ainsi qu'on l'a démontré dans bien des contextes, du laboratoire (Brandsford, 1980) au tribunal (Neisser, 1981)." (My italics).

8. Ibid. ..."Finalement, il est parfaitement clair que la représentation sémantique de tout phénomène complexe, que ce soit un morceau de musique ou une théorie scientifique, suppose la "décomposition" du phénomène en composantes reliées entre elles. Cette décomposition représente une bonne partie de ce qu'on appelle compréhension."

9. Ibid ....*"On acquiert en quelque sorte une espèce de dictionnaire des éléments* qui servent à la construction des nombreux domaines et univers que nous habitons. Comme une bonne partie de la mémoire sémantique, cet entrepôt n'est pas complètement transparent sous les regards de l'introspection consciente. Il opère suivant ses propres lois. C'est l'existence d'un tel magasin qui semble être à la racine de toute activité créatice." (My italics).

10. György Ligeti. Paul Griffiths.
11. The second part goes down in slow motion, therefore time span is wide, whereas the first part goes up in fast motion. Density of articulation also varies between sections. In other words, the second part is a stretched -enlarged-version of the first part.
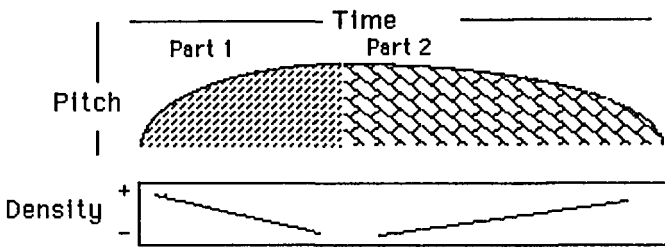
12. Ligeti often uses the term "machine-type" when he is speaking of his repetitive textures.

> "Since 1950, static music had always been somewhere at the back of my mind.....other ideas were the wildly gesticulating, hectic music, the sound of articulate speech, and machine-like music". From *Ligeti in Conversation*, Interview with Peter Varnai.

Typical examples of this type are the third movement of the *Chamber Concerto* ("Preciso e meccanico") and the third movement of the *Second String Quartet* ("Come un meccanismo di precisione").

BIBLIOGRAPHY

Griffiths, P. (1983).*György Ligeti*. London: Robson Books.
Huntley, B.W. (1975). *Compositional Principles in Three Works of György Ligeti.* Washington: Doctoral Dissertation, University of Washington.
Ligeti, G. (1970). *Artikulation*, Elektronische Musik. An aural score by Rainer Wehinger. Mainz: B. Schott's Söhne.
Ligeti, G. (1970). *Melodien*. Mainz: B. Schott's Söhne.
Ligeti, G., Varnai, P. et al. (1983). *Ligeti in Conversation*. London: Eulenburg Books.
Michel, P. (1985). *György Ligeti*. Paris: Minerve.
Sloboda, J. (1988). Musique et Mémoire. In *Enharmonics*, No. 3, Paris: IRCAM.

Ignacio Baca-Lobera
4043-A Miramar St.
La Jolla, CA 92037
USA

Ignacio Baca-Lobera was born in Mexico City in 1957. He started his musical interests as a self-taught musician. Later, he studied composition with Julio Estrada in Mexico, and recently with Joji Yuasa and Brian Ferneyhough in the United States. Microtonalism and graphical methods for composing are utilized in his pieces. He is currently studying at the University of California, San Diego on the Ph.D. program in composition.