

**Martin Link**

## **Thema Omaggio a Joyce – Expression as a meaning**

Westfälische Wilhelms Universität Münster, Germany

[martinlink89@hotmail.com](mailto:martinlink89@hotmail.com)

### **Abstract**

*Thema (Omaggio a Joyce)* is maybe the only electroacoustic work ever created involving a musician and a semiologist at the same time. During their short cooperation in the Milanese *Studio di Fonologia Musicale* during the 1950s at the Italian broadcasting company RAI, Luciano Berio and Umberto Eco reached its height with this tape-music produced in 1958. Originally intended as a radio experiment, this work grew out of the study of onomatopoeia from Eco and Berio as a survey using the eleventh chapter of James Joyce's novel *Ulysses* as an example. Although Eco semiotic profession would come to full extend after this period, his fundamental thoughts on openness and the meaning of open forms were already on the table when he published his article "L'opera in movimento e la coscienza dell'epoca" in 1958/59. The production of *Thema (Omaggio a Joyce)* included the reading of the text from *Ulysses* in French, Italian and English, which was then put together and treated with special procedures that were developed in the Milanese studio such as overdubbing, filtering and variation of speed and dynamic. The result was a piece with the text of James Joyce, which becomes gradually difficult to comprehend because of its multi layer structure and which has been equipped with a new dimension of meaning and understanding.

### **The Studio di Fonologia Musicale**

Since the appearance of electroacoustic music on the planet, we can say carefully that the world of the 1950s has been divided in two big sections in Europe and one in the United States. The European institutions are perhaps mostly famous for their names they were related to. On the French territory, a broadcast-company called *Radiodiffusion Française* already gave in 1943 the opportunity to found the platform *Studio d'essai* with a studio under the leadership of composer Pierre Schaeffer, which then led later to the birth of the famous *Groupe de Recherches Musicales* in Paris. In 1951, a German group surrounded by physician Werner Meyer-Eppler and composer Herbert Eimert founded the *Studio für elektronische Musik* in West Germany in the city of Cologne. During the establishment of these famous institutions with their aesthetic procedures known today as *musique concrète* in Paris and *elektronische Musik* in Cologne, it would be hard to believe that four years later a third party would take a seat at the table of electroacoustic music. The artistic work of the two American composers Otto Luening and Vladimir Ussachevsky led to a concert in 1951 at the Museum of Modern Art in the City of New York. This occasion would prove to be the starting point for Italian composer Luciano Berio of a project known today as the *Studio di Fonologia Musicale*, officially founded in 1955 at Milan's Radiostation of the *Radio Audizione Italiana*. Having three major players of this contemporary genre of music on the European mainland, of course not everybody played the same match. Being delayed with their studio foundation,

the Italians in Milan were about to go into their own aesthetic direction, even if traces of influence from Paris and Cologne can be identified. The uniqueness of the approach to music at the Corso Sempione is almost perfectly comprised in a piece, which was not created just by musicians.

## Thema (Omaggio a Joyce) & Ulysses

In fact, the work *Thema (Omaggio a Joyce)* is perhaps the only electroacoustic piece ever created, involving a musician and a philosopher at the same time. In 1958, this work grew out of a study on onomatopoeia called *Omaggio a Joyce* using a portion of the eleventh chapter, known as the “sirens chapter”, from James Joyce’s novel *Ulysses*. Umberto Eco and Luciano Berio worked on this text for one reason: the uniqueness and richness of onomatopoeia. Therefore, it would not have been enough just to read the text in a silent corner but rather to organize a cozy dinner at Cathy Berberian’s home and reading the text out to each other loudly – of course not without enjoying fantastic Armenian cuisine. However, we must bear in mind that there was in the 1950s absolutely no Italian version available of *Ulysses*; this is why the Joyce’s piece was quite unknown in the country. It was the hard work of Eco and Berio to go into the English original version and to struggle with the strange language and on the other hand also to experience the onomatopoeia in its pure form as it was originally written by Joyce himself. But this would not be satisfying enough for the research – Umberto Eco possessed also the French translation from Valery Larbaud and luckily managed at last to get a fresh copy of the first planned edition of an Italian translation from editor Arnoldo Mandadori. At this point, we have to be absolutely aware of the fact that we now have material in storage of no less than 3 languages: English, French and Italian. This multilingual ingredient would make the dish of *Thema (Omaggio a Joyce)* quite exotic.

Concerning this text of the 11th chapter of *Ulysses*, much has been said. The assumption that this is composed according to a *fuga per canonem* was actually proposed by Joyce himself. However, from the aesthetic point of view this has a downside. Since a *fuga per canonem* is a musical form, in order to prove this assumption we would have to analyze a text from 1922, according to a formal principle first mentioned in music during the 14th century and constantly revised since then. *Fuga per canonem* implies not a specific form type like a fugue from Bach but a fugue according however to a rule, as the Latin term says. In fact, in the probably most important survey *Ulysses annotated* we can find the following remark:

A fugue according to a rule. It involves three classes of subject: 1. *Andamenti*, a complete melody, beautiful in itself, 2. *Soggetti*, a short passage with a characteristic interval; and 3. *Attaco*, a short figure, usually *staccato*.<sup>1</sup>

Joyce considered this, when he published a table already in 1921 for his friend Stuart Gilbert to ensure a slight orientation in his novel. The chart which is known today as the *Gilbert schema*<sup>2</sup>, demonstrates the intentions of Joyce, in order to have a perspective at every chapter, so we can say for instance that the Sirens-Song takes place at 16 o’clock at the Ormond-Bar, focusing on the ear, embodying the art of music and using the technique of a *fuga per canonem*.

The real problem of this assumption is its focus on formal structure. Certainly we can assume, that it would be hard to find any strict form in one of Joyce’s novels. Berio rejects in his essay *Poesia e musica – un’esperienza* a formal consideration from the beginning. Musical thinking

<sup>1</sup> Don Gifford, Robert J. Seidman, *Ulysses Annotated*, Berkeley (CA), University of California Press, p. 290.

<sup>2</sup> See [http://pajari.kapsi.fi/Luennot/pdf/gilbert\\_\\_schema\\_for\\_ulysses.pdf](http://pajari.kapsi.fi/Luennot/pdf/gilbert__schema_for_ulysses.pdf) (last accessed 05/18).

in terms of form and strict method is a rather negative focus for him because we would be looking in such a case just on this aspect without paying attention to another important perspective: development. This term of development, or process, allows us to look on a broader scale of the phenomenon. In case of the fugue, this means development of the themes and varying them. All what we have to do is to find themes in *Ulysses*. In fact, Berio mentioned five possible expressions himself from the text and identifies them in musical, expressive terms<sup>3</sup>. You can see for instance the correspondence here of “Warbling. Ah, lure!” to an appoggiatura. In this sense, what we can say for the justification of Joyce’s text as a real fugue is that the *themes* as musical expressions are identifiable and appear again through the whole 11th chapter. This development of the themes is about to be highlighted through the following procedures of *Thema (Omaggio a Joyce)*: first, the English version was recorded with a female voice from Cathy Berberian. Second, this first recording was overdubbed twice, so three voices were overlaid with increasing and decreasing time relations, so partially the acoustic image was confused in terms of comprehensibility. In a third step, this was repeated with the Italian text read with three voices and finally also a French one, read by a male voice (Eco himself) and a female one additionally. The mixture was then analyzed according to a phonetic scale and finally re-ordered according to new sound categories, so that we can say, through this procedure a new chord was achieved thanks to this phonetic analysis and re-grouping of vocal colors. Going back to our fugue-consideration, with this procedure of overlaying multiple recordings, of multiple languages, of multiple voices in addition to different time- and dynamic relations, as well as filtering, Joyce’s text has developed a somewhat polyphonic structure in terms of *process*. The themes have been modified, brought in relation to each other *in actu*, or with Berio’s words: “New relationships have been established between the elements of the material itself.”<sup>4</sup>

## New relationships

But what exactly has happened in this *process*? Well, something that seems to be almost the same with a famous piece from two years before: Stockhausen’s *Gesang der Jünglinge*. Both compositions take a recorded voice and transform it to find out the border where actual understanding is not possible anymore. At this very important point, we must not forget, that despite some similarity the technique of *Gesang der Jünglinge* was quite different, because Stockhausen mixed the voice mainly with pure electronic sounds – something that has not taken place at *Thema (Omaggio a Joyce)* at all. Berio’s and Eco’s masterpiece features not only a total focus on pure sound without any electronic input but also on the appearance of three languages at the same time – something that has already been undertaken at the *Studio di Fonologia*’s official first electroacoustic opus *Ritratto di città*. To find out more about the *process*, it is useful to look at the moments, where the text, as written from James Joyce, is understandable and where not anymore.

<sup>3</sup> Luciano Berio, “Poesia e musica – un’esperienza (1959) / Poetry and Music – an Experience (1959)”, in *Nuova Musica Alla Radio – Esperienze allo Studio di Fonologia della RAI Di Milano 1954-1959 / New Music on the Radio – Experiences at the Studio di Fonologia of the RAI, Milano 1954-1959*, Angela De Benedictis and Veniero Rizzardi (a cura di / eds), Rome, CIDIM-ERI-RAI, 2000, p. 242.

<sup>4</sup> *Ibid.*, p. 249-250.

Thema (Omaggio a Joyce): Intelligibility graph

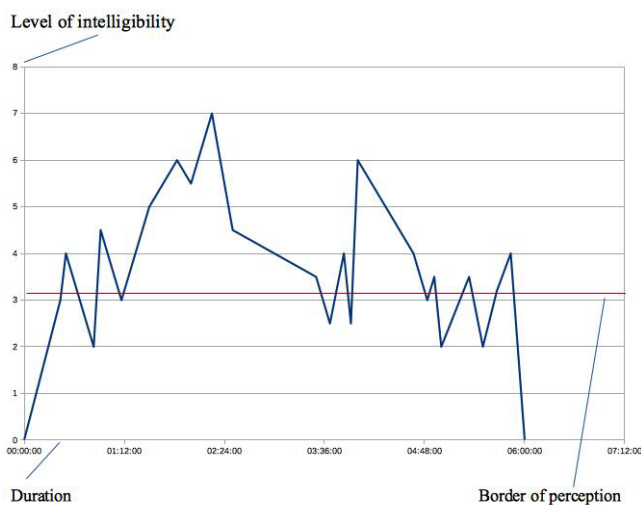


Figure 1: Graph of intelligibility of Thema (Omaggio a Joyce)<sup>5</sup>

The graph of intelligibility in Figure 1 shows the development of this phenomenon with the help of the so-called *border of perception*. Having the duration on the x-axis and the level of incomprehensibility on the y-axis, the borderline divides the graph in two sections: below the line, the listener should be able to understand the recorded voice and identify the sounds as meaningful words as they were written in the Siren’s chapter. The lowest point at 0 represents a pure recording of the voice without any alteration at all. Above the line, the listener is in a completely different state: he can of course hear fragments of words like vowels but is no longer able anymore to tell where they belong to or which word it possibly should be. All we can hear now is pure sound. A different state indeed according to the philosophy of language: spoken language in the sense of Swiss linguist Ferdinand De Saussure is consistent of a word divided into its pure sound, known as the *signifiant* and the object or thing what is meant by it, called *signifié*. This dichotomy means that when we hear for instance the word ‘ball’, our attention is in theory immediately drawn to the round, leather object to play soccer. Therefore, the actual sound of ‘B-A-L-L’ is not so important because we tend to put our cogniscence of meaningful words into a context of logical syntax. In the upper portions of our intelligibility graph, the game is a different one: thanks to the fact that the text there is not understandable anymore, we can completely focus on the sound and it’s pure perception. The higher the gauge rises, the more has been done to the text, the more overlaying, the more filtering and re-grouping. At highest point, the most far away understandability and formal meaning is – therefore the more acoustic complexity we have. But what exactly is this new sound? To give

<sup>5</sup> This graph belongs to the lecture *Thema (Omaggio a Joyce): Expression as a meaning*, given during EMS17 Communication in/through Electroacoustic Music, Nagoya (Japan), Nagoya City University, 5-8 September 17 (this demonstrating graph was created by Martin Link and authorized for publication).

this appearance an understandable shape, I would like to use the model of a *sound-cloud*. This model implies the fact that to start with, the common dichotomy as mentioned before between *signifiant* and *signifié* is resolved and therefore a new relationship has been established. This is not just between two components but between several of them. That's also why the shape of a cloud is used, demonstrating irregular outlines being constantly in movement. Perception is not the result of formal distinction anymore but a mixture of different colors of a scale. Of course, there are identifiable inputs described as *contributing factors*: therefore we have on the one hand the material of the sound from the speakers with its new relationships. Then on the basis of a triangle two states of mind of the listener: one based on knowledge or experience and another on the actual state of mind. Concerning the new relationships of the material, a chart from Berio himself demonstrates this with dynamic relations of three English versions<sup>6</sup>. The creation of this pendular relationship is not strictly coordinated but highlights spontaneously certain passages. This can be seen in a second diagram regarding time relations<sup>7</sup>.

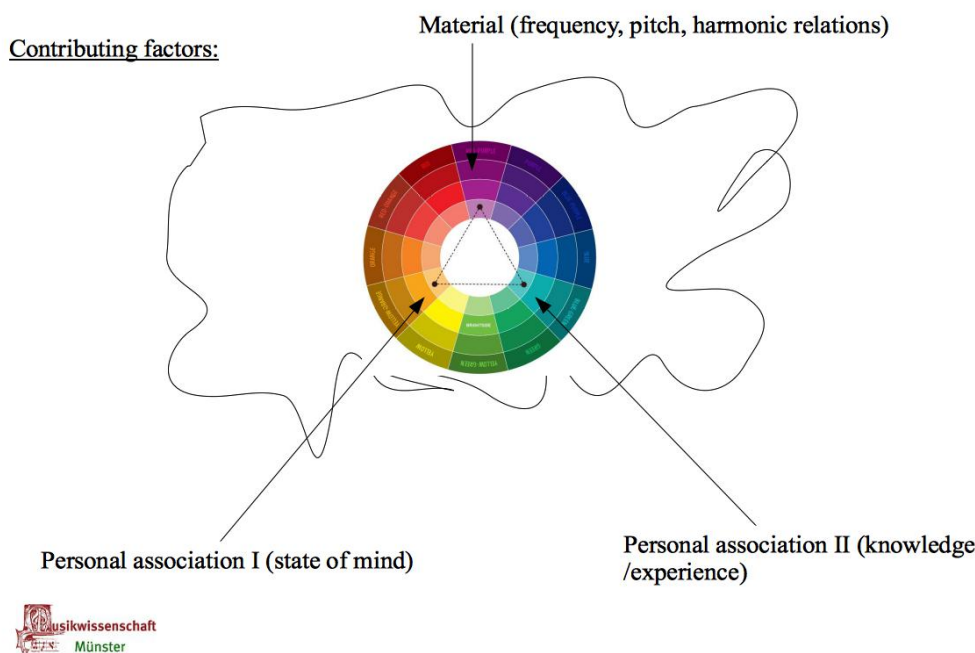
The real fascinating result is, when we hear even other relationships with words from other languages articulating three different messages, we actually hear just one thing – the components become a pure acoustic product, or, as Berio said, *musical* function and even a *polyphonic wave*. As we can hear in an audio example, the piece started at level 0 as a pure recording and the intelligibility graph shows that it ends the same way. *Thema (Omaggio a Joyce)* is not just a study of a transition from an understandable text to a new atmosphere but inhabits several transitions. The reason for this is the fact that the process of transition – thus, crossing the border of formal meaning – really matters here. Why is this border so important? If we see common language and music in their syntax, we can say that we have two opposed systems here with a grammar of formal meaning on the one hand and transcendence on the other. The border shows this transition from one system to the other and it is the possibility to examine this transition carefully and finally to overcome the opposition between spoken language and music. In fact, Joyce's text as the original material helps us here, because its onomatopoeia is already a part of this: In this phenomenon, word and meaning are not in relationship to each other by dichotomy as it was in language – now the word embodies the meaning itself through *expression*, or in other words: the gesture is its meaning. Through *Thema (Omaggio a Joyce)* this feature of the text has been picked up and even intensified by using multiple languages and by aiming a very high level of complexity and acoustic tension, as the graph of intelligibility has showed. The analyses on *Thema (Omaggio a Joyce)* demonstrated us, how carefully the sound is built together with the new relations between the elements of the material. They are even more than just new relationships – let us get back to the point of perception. What is going on in the listener's head, when he hears these moments above the border of perception? Well, one thing is certain: nothing strictly related to certain objects. But is it the opposite, thus no reference at all? If we think back to our model of the *sound-cloud*, what we can say is that not every listener would immediately identify an association and conclude: it is exactly a fragment of the word bloom or a fragment of a sound of a bell. The reality is that we cannot find a common denominator for our personal associations. Everybody can imagine something privately, which can be put into relation with the sound cloud through the material and the personal imagination.

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<sup>6</sup> Luciano Berio, "Poesia e musica – un'esperienza (1959) / Poetry and Music – an Experience (1959)", *op. cit.*, p. 242.

<sup>7</sup> *Ibid.*, p. 244.

## Sound-cloud model of perception



**Figure 2:** Sound-cloud as a new model of music perception with triangle and contributing factors<sup>8</sup>

### Expressive meanings

What we can finally say is that in the moments of complex sound there is actually a manifestation, but a new one – a different one and probably several of them. Not in logical terms of language, but in terms of gesture or: *expression*. This *expression as a meaning* leads us into a dream world of musical sound, where everybody can follow a possible manifestation but no definite one according to a formal plan. Following these multiple manifestations, we can use a famous word: *openness*. Originally of course, this word is used related to a morphological aspect of a music theory: open forms. Although there are multiple options to declare forms as ‘open’, we can say *Thema (Omaggio a Joyce)* has definitely no open form at all because we cannot alter the structure of the piece. But the associations, the meanings initiated by expression are in fact open. To speak with physical terms: there is a field of possibilities of imaginations in the *sound clouds*. The gestures, or expressions, are the only thing left that gives us a form of direction – but the final result is our own doing in this dreamland of music. Therefore the conclusion can be made that the meaning is the expression itself. Since we do tend to think this as a great achievement of *Thema (Omaggio a Joyce)*, which is of course true, there is more to it: it is the core of Luciano Berio’s aesthetic. What has already been developed in the *Studio di Fonologia Musicale* through electroacoustic pieces like *Mutazioni* and *Perspectives* is brought to a climax in *Thema (Omaggio a Joyce): expression*. While the journey in the search of musical gestures was rewarded with this piece, it was not yet the end. The conclusion of this Studiowork would be the possibility to create something new with old material: transformations of the old, *process* of the old. The *process* of turning Joyce’s text into new gestures and possible associations would stimulate Berio

<sup>8</sup> This graph belongs to the lecture *Thema (Omaggio a Joyce): Expression as a meaning*, given during *EMS17 Communication in/through Electroacoustic Music*, Nagoya (Japan), Nagoya City University, 5-8 September 17 (this demonstrating graph was created by Martin Link and authorized for publication).

years later to take musical material and turn it into a new piece through transformation as he did with fragments in *Sinfonia* during 1969 and with his *Turandot* finishing in 2001. It is also thanks to the electroacoustic music that this experience of transforming material could be achieved with the technology. In *Thema (Omaggio a Joyce)*, expression is a meaning and for all of us a possible dream-theatre to take part in. No matter what we do personally imagine in this world, one thing is certain: not the formal externalization matters but the *process* how we get there – the perception in the *sound clouds* through expressions, our own personal cogniscence and our state of mind: It will lead us to our personal reference – for Luciano Berio it lead him to his personal aesthetic and style of his unique music and he invites us in this piece to take part of this world with the help of electroacoustic music.

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